



Dr. Safia Niazi¹, Sadia Batool², Aiman Bibi³

¹Assistant Professor, Department of Education, Benazir Bhutto Shaheed University Lyari, Sindh, Pakistan,

Email: safianiazi@gmail.com

²Lecturer, Department of Teacher Education, Federal Urdu university arts and science Karachi,

Email: sadiahaider16@gmail.com

³MPhil. Scholar, Department of Education, Benazir Bhutto Shaheed University, Lyari, Sindh, Pakistan,

Email: aimanmrifaquat@gmail.com

KEYWORDS	ABSTRACT
Teacher Education, Career Diversification, Graduate Employability, Non-Traditional Careers, Edtech, Digital Competencies, Career Decisions, Emerging Careers	This study examined career diversification and non-traditional employment opportunities for Teacher Education graduates, focusing on emerging career pathways, factors influencing career decisions, and competencies required for diversified employment. A sequential explanatory mixed method design (QUAN → QUAL) was adopted, with 300 Teacher Education graduates being sampled quantitatively and 15 purposively selected participants were interviewed qualitatively. The results found Educational Technology (EdTech), Curriculum Development, Instructional Design, Educational Research, Publishing, NGOs, Corporate Training, and Consultancy as some of key alternative careers. Career advancement, financial benefits, personal interest, job availability, flexibility, and career awareness influenced graduates' career decisions, with personal interest emerging as the strongest predictor of willingness to pursue non-traditional careers. Essential competences were identified as digital competence, communication skills, creativity, researching skills, leadership, project management, and entrepreneurial skills. The qualitative interviews also uncovered low levels of career guidance, career experience and specific skills as barriers. The study highlights the need to expand the scope of Teacher Education to improve diversified graduate employability.
ARTICLE HISTORY	
Date of Submission: 24-06-2026 Date of Acceptance: 28-07-2026 Date of Publication: 06-08-2026	
	 2026 Journal of Social Research Development
Correspondence	Dr. Safia Niazi
Email:	safianiazi@gmail.com
DOI	https://doi.org/10.59075/jsrd.v7i6.510
Volume/Issue	7(6), 2026, 76-95

Introduction

Traditionally, Teacher Education programs have focused on teaching, pedagogical skills and content knowledge, assessment and classroom management, in preparation for teaching in a formal school setting. However, the education sector is undergoing substantial transformation due to

digitalization, online and hybrid learning, artificial intelligence, and changing labor-market expectations. The COVID-19 pandemic further accelerated the shift towards technology-supported education, and also called for more digital and pedagogical adaptability of future educators (Kan et al., 2022). Digital competencies have therefore come to play an ever more central role in the current educational context (Fuentes & García, 2024). Furthermore, employment opportunities have changed, and the opportunities for prospective teachers to think about online teaching and digital platforms as career options are growing (Dinçer, 2025). So, the career diversifications and future-ready competencies are becoming of vital importance for the Teacher Education graduates. However, recent studies show that education graduates are now pursuing various career paths that go beyond the traditional teaching profession, as a result of shifting aspirations and employment opportunities (Rizqi et al., 2024; Billones-Franco et al., 2024; Nabilah et al., 2025).

Teacher Education programs, nonetheless, continue to be largely focused on traditional school teaching. The number of traditional positions, employer expectations, and lack of knowledge of alternative education-related jobs could limit graduates' opportunities. Research on teacher education graduates has revealed that post-education career choices may be intricate, considering staying in, leaving, or entering a more conventional teaching profession (Falch, 2022; Diokno & Erojo, 2025). Employment experiences of graduates also reflect the problems encountered in the transition to the appropriate professional path and in becoming unemployed (Seva & Accad, 2025). 21st-century workplaces require enhanced communication skills, flexibility, digital literacy, creativity, and career management. Research indicates that career competencies facilitate graduates' transition from higher education to employment and contribute to positive career outcomes (Grosemans & De Cuyper, 2021; Lo Presti et al., 2021). Finally, tracer studies highlight the need to consider the employment experiences and career pathways of graduates of Teacher Education programs post-graduation (Pardo & Relon, 2023).

While there is extensive research on teacher preparation, employability and digital competence, less research has focused on alternative career paths that are unique to Teacher Education graduates. Previous research has focused on career changes and transition into teaching, such as career change teachers and alternative pathways to teacher qualifications (White et al., 2024; Dawborn-Gundlach, 2025). Other studies have explored career changes among STEM and non-STEM graduates in Teacher Education (Heusel et al., 2026), and career transition experiences of non-education graduates to professional teaching (Diamas-Palo, 2025). Especially there is limited information on graduates' knowledge of other careers options, career decision-making factors, and skills needed for newly emerging careers in the education sector. While previous research has identified situations in which Teacher Education students view the degree positively but do not intend to pursue school teaching (Suryani & George, 2021), greater attention is required to understand the alternative career pathways available to such graduates. Recent studies have therefore focused on equipping teacher preparation students with skills that are relevant to the evolving demands of the labor market (Kakooza et al., 2025).

This study fills this gap by investigating career diversification and alternative work options of Teacher Education graduates (Imran, Akhtar, & Khan, 2026; Haider, et al., 2025). The results could help graduates to expand their career options and help universities, Teacher Education departments, career counselors and employers to build relevant competency and career-support mechanisms. The importance of understanding career mobility is growing, as professional moves may entail significant shifts in teacher knowledge, identity and career development (Nilsson & Cedergqvist, 2024). In addition, the results could be utilized to help improve the linkage between Teacher Education programs and changing occupational needs in the education sector.

Research Objectives

1. To identify non-traditional career pathways available to Teacher Education graduates.
2. To examine factors influencing graduates' willingness to pursue careers outside conventional school teaching.
3. To assess the competencies required for diversified education-sector careers.

Research Questions

1. What non-traditional employment opportunities are available to Teacher Education graduates?
2. What factors influence graduates' decisions to pursue alternative education-related careers?
3. What competencies are required to succeed in these emerging career pathways?

Literature Review

Teacher Education and Graduate Employment

Teacher Education programs typically focus on the development of pedagogical knowledge, subject matter skills, evaluation skills, classroom management, and professional practice. As a result, the occupation pathway for school teaching is still the most prevalent pathway for those with a Teacher Education qualification (Falch, 2022). But, in today's world, graduate employability goes beyond having a degree and now extends to the ability to transfer skills and abilities to new work environments. Studies have shown that mismatches between the competencies developed in university and those that are expected in the workplace exist – especially in the cases of practical and soft skills (Kocsis & Pusztai, 2024). In teacher preparation in particular, there is a need for curriculum reform, capacity building and building strong linkages between teacher preparation institutions and employer needs for the teacher to be employable (Samakao & Masaiti, 2025). Therefore, Teacher Education graduates will be required to look at other professional opportunities in education, outside of a typical school setting, to change their employment in the education sector.

Career Diversification

Career diversification is the practice of using transferable skills and skills acquired in one career pathway in another pathway to expand career options; it is not relying on one “traditional” career. As the job market and the roles of employers evolve due to technological progress, competition, flexible working patterns and changes to the expectations of employers, the importance of this has grown. Employment outcomes (Grosemans & De Cuyper, 2021) and education–job fit (Grosemans & De Cuyper, 2021) are related to career competencies gained from the preparation for the transition from higher education to jobs. Likewise, in the job market, many employers are looking to skills and competencies as well as diplomas, leading to the need for universities to adjust their programs in order to better satisfy employers’ needs (Gomez & De Luna, 2023). Career diversifications can thus boost graduates’ adaptability and give them other options when they are unable to get jobs in their first career.

Non-Traditional Employment Opportunities

The scope of jobs around education has greatly grown due to digital transformation. Teacher Education graduates have the skills and knowledge of pedagogy, communication, assessment, content development and organization that can be applied to educational technology, instructional design, curriculum development, education publishing, corporate training, NGOs and development organizations, educational research, consultancy, assessment/evaluation, administration and educational project management (Pham et al., 2024). Digital ecosystems of education have fostered partnerships between students, teachers, educational institutions and educational-service actors, thus forming new educational-work environments (Tretyakova et al., 2021).

One alternative that is apparent is online education. Due to recent changes in employment, pre-service teachers have been motivated to explore digital platforms and online teaching is seen as a viable career rather than just a short-term solution (Dinçer, 2025). Such developments further open up opportunities related to digital-content production and learning with technologies (Danish, Akhtar & Imran, 2025; Mankash, et al., 2025; Hafeez, Yaseen & Imran, 2019). Despite these occupations, however, require skills that are not well enough taught in the traditional Teacher Education programs.

Factors Influencing Career Decisions

Choices of career are not one-dimensional, based exclusively on academic achievement. Graduates can compare wages and financial rewards, hobbies and interests, promotion prospects, opportunities for work, job safety, job flexibility and knowledge of his/her available career choices (Ansari, Akhtar & Hafeez, 2024; Akhtar, et al., 2021). Career preferences might also be influenced by social and psychological factors, such as family preferences, professional identity, perceived skills and social support (Imran, Akhtar, & Khan, 2026; Zaidi, et al., 2024). Career exploration and self-efficacy have been shown to have an impact on career choice and social support can be shown to modify these relationships (Pham et al., 2024). Finally, the concept of professional identity is also significant in Teacher Education as students might have biases about their profession/occupation

in which they will be in their professional program (Keane et al., 2022). Differences in experiences with work or other opportunities in alternative careers then might limit the perceived career options of graduates.

Competencies for Diversified Careers

The skills needed for successful career diversification are transferable and future skills. Teacher Education graduates might be able to operate in various education sector contexts through their digital literacy, communication, critical thinking, creativity, leadership, research skills, project management, working collaboratively, being entrepreneurs, and being adaptable (Rizqi et al., 2024; Nabilah et al., 2025). The importance of digital competence is highlighted especially in the context of digital content creation as an indispensable ability in the new educational environments. A comparison of graduate-employable competencies with the workplace competencies also reveals the lack of competencies among graduates, particularly in the fields of problem-solving, time management, practical expertise and conflict management, as found in graduate-employability research (Kocsis & Pusztai, 2024). Pedagogical training must be linked with other transferable and employable competencies, which is why Teacher Education programs must integrate these skills.

Theoretical Framework

The present study is informed by Social Cognitive Career Theory (SCCT) and Human Capital Theory (HCT). SCCT offers an explanation of career development by examining the interplay between self-efficacy, outcome expectations, interests, goals, and supports/barriers in the environment. The SCCT is supported by contemporary research which shows that self-efficacy, career exploration and social support are factors affecting career-choice processes (Pham et al., 2024). Therefore, SCCT is helpful in exploring the relationship among graduate students in Teacher Education's interests, confidence, and expected career paths, family/social factors, and employment environment with regard to traditional and alternative career paths.

Human Capital Theory complements this perspective by emphasizing investment in knowledge, skills, and competencies as resources that enhance individuals' productivity and labor-market opportunities. Research over the past few years' shows that graduates and employers have placed a high value on their academic qualifications as well as on their other employability skills (Gurung et al., 2023). The competencies acquired by Teacher Education are thus the basis for exploring the extent to which they contribute to diversified employability.

Research Gap

As revealed from the reviewed literature, there has been a growing concern on the issue of employability of graduates, digital transformation, career competencies, and the changing requirement of the labor-market (Suryani & George, 2021). Moreover, research substantiates that Internet and technology-based learning is changing and redefining teachers' work. Despite this, there is sparse empirical study in recent years that explicitly and fully analyzes the phenomenon of

teacher graduates of the Teacher Education programs diversifying into the outside of the education sector, especially in the wide range of occupations studied. The available evidence shows that the current situation of graduates of the Teacher Education program and the graduates of the English Education program have a tendency to consider or undertake careers outside of the classroom teaching, namely an increase in graduates working in other fields rather than classroom teaching (Rizqi et al., 2024; Nabilah et al., 2025). There is also a lack of evidence on graduates' knowledge of these occupations, what personal and environmental factors influence career decisions and what skill sets are needed for the diverse world of jobs. The complexity of the graduates' decision not to go into the teaching profession after graduating and various factors influencing graduates' career choices were highlighted in the previous research (Diokno & Erojo, 2025; Suryani & George, 2021). Thus, it is necessary to undertake a mixed method study to quantify the patterns of career awareness and preference, the influencing factors and career competencies, and qualitatively examine graduates' experiences, motivations, perceived barriers, and career outlook regarding the emerging career opportunities.

Research Methodology

Research Philosophy

The research philosophy adopted for this research was a pragmatic research philosophy which was found relevant for the study exploring multidimensionality in career diversification of Teacher Education graduates. The use of quantitative and qualitative evidence was allowed to integrate and the choice of methods was based on their usefulness in responding to the problem under investigation was supported by pragmatism (Gamage, 2025).

Research Approach

The collection of data was by a mixed method approach to gain breadth and depth of understanding. The quantitative component looked at trends in career opportunities, career choices made by graduates, attitudes to non-traditional jobs and the competencies required, while the qualitative component provided a deeper analysis of the experiences, motivations and barriers students faced.

Research Design

The study was a sequential explanatory mixed-methods study (QUAN → QUAL) that had two interrelated phases. In the first phase, quantitative survey data were collected and analyzed. The second phase involved qualitative interviews to elaborate, clarify and further explain results of the quantitative interviews. This is similar to explanatory mixed-methods research where qualitative research follows quantitative research results (Othman et al., 2020).

Population

The target group consisted of the Teacher Education graduates with B.Ed., B.Ed. (Hons.), BS Education, M.Ed., or other known Teacher Education programs. In the quantitative phase, 300 Teacher Education graduates were chosen using stratified random sampling. Participants were divided into subgroups by university type (public/private), academic qualification, and employment status to ensure a good representation of relevant graduate groups. In the qualitative phase, 15 respondents were purposively selected from respondents of the quantitative phase. Special attention was paid to graduates with experience and/or expressed interest in non-traditional education-sector careers, and the interviews provided meaningful explanations of the quantitative results.

Quantitative Instrument

A set of questions were used based on a five point Likert scale. The instrument consisted of five sections: 1) demographic information, 2) non-traditional career opportunities, 3) factors influencing career decisions, 4) willingness to pursue non-traditional careers and 5) competencies required in diversified careers.

Qualitative Instrument

A semi-structured interview protocol was utilized to gain insights into graduates' perspectives on alternative career possibilities, career motivations, obstacles, competencies, professional preparation and employment in the education sector in the future. The semi-structured format enabled the participants to expand on the issues that came out of the quantitative phase.

Validity and Reliability

The questionnaire has been expertly validated and pilot tested before being administered, as per current instrument validation protocols (Govindasamy et al., 2024). Cronbach's alpha was used to test internal consistency, and values of $\alpha \geq .70$ were deemed acceptable. The internal consistency of multi-item measurement instruments is usually assessed by Cronbach's alpha (Izah et al., 2023). Member checking, systematic coding, quotations of participants and peer review strengthened the qualitative trustworthiness.

Data Collection Procedure

The data collection was done in two stages. In Phase I, questionnaires were given to 300 Teacher Education graduates. After coding the survey responses, 15 participants were selected for Phase II for semi-structured interviews to clarify and further illuminate the important quantitative findings.

Data Analysis

The SPSS software was used for the analysis of quantitative data. The descriptive data provided frequencies, percentages, means, standard deviations and ranking; reliability analysis, correlation

and multiple regressions were used as needed. Thematic analysis with familiarization, coding, categorization, development of themes and interpretation of qualitative interview data were conducted. Finally, to complete the sequential explanation process (Othman et al., 2020), qualitative themes were incorporated into the quantitative results to explain and elaborate the statistical results.

Results

The quantitative data obtained for 300 Teacher Education graduates were analyzed with SPSS. Demographic characteristics, non-traditional career opportunities, factors influencing career decisions and required competencies were summarized with descriptive statistics such as frequency, percentage, mean standard deviation and ranking. Pearson correlation and multiple regression analysis were also conducted to explore the relationships among career-decision factors and the graduates' desire to enter non-traditional careers. This analytical method is the same that has been described for the study.

Demographic Profile

Table 1: *Demographic Profile of Respondents*

Variable	Category	Frequency	Percent
Gender	Male	132	44.0
	Female	168	56.0
Age	21–25 years	126	42.0
	26–30 years	102	34.0
	31–35 years	48	16.0
	Above 35 years	24	8.0
Qualification	B.Ed.	81	27.0
	B.Ed. (Hons.)	72	24.0
	BS Education	69	23.0
	MEd./Equivalent	78	26.0
University Type	Public	159	53.0
	Private	141	47.0
Employment Status	Employed	198	66.0
	Unemployed	69	23.0
	Self-employed/Freelance	33	11.0
Current Occupation	School Teaching	126	42.0
	Non-Traditional Education Career	72	24.0
	Other Employment	33	11.0
	Not Currently Employed	69	23.0

The demographic characteristics of the 300 respondents are shown on Table 1. The female graduates formed 56.0% of the sample, and the males formed 44.0% of the sample. The largest

age group was 21–25 years (42.0%), followed by 26–30 years (34.0%). The respondents were fairly proportionately distributed across the four categories of qualification, with 27.0% of the respondents having B.Ed. as their qualifications. When asked about the type of university, 53.0% graduated from public universities, and 47.0% graduated from private universities. The majority of the respondents were employed (66.0%), 23.0% were jobless, and 11.0% were engaged in self-employment and freelance work. The primary occupation was still school teaching (42.0%); but, 24.0% were already employed in non-traditional teaching occupations. The demographic profile thus reflects graduates' varied educational and professional experiences.

Non-Traditional Career Pathways

The first research goal was to “identify non-traditional career pathways available to Teacher Education graduates”. The literature section pinpoints alternative occupations that include educational technology, instructional design, curriculum development, educational publishing, corporate training, NGOs, research and consultancy.

Table 2: Descriptive Statistics and Ranking of Non-Traditional Career Pathways

Career Pathway	N	Mean	SD	Rank
Educational Technology (EdTech)	300	4.31	0.63	1
Curriculum Development	300	4.18	0.67	2
Instructional Design	300	4.12	0.71	3
Educational Research	300	4.05	0.69	4
Educational Publishing	300	3.96	0.73	5
NGOs/Development Sector	300	3.89	0.76	6
Corporate Training	300	3.82	0.79	7
Educational Consultancy	300	3.74	0.81	8

Overall, as shown in Table 2, perceptions of non-traditional jobs were positive, with all mean scores exceeding the middle point of the five-point scale. The most highly rated alternative career pathway was Educational Technology with a mean score ($M = 4.31$) and a standard deviation ($SD = 0.63$). Curriculum development ranked second ($M = 4.18$, $SD = 0.67$), followed by instructional design ($M = 4.12$, $SD = 0.71$) and educational research ($M = 4.05$, $SD = 0.69$). Educational consultancy received the lowest mean score ($M = 3.74$, $SD = 0.81$), but still had a score above the scale's midpoint. The results suggest that TE graduates have a high level of awareness about the opportunities available in their employment outside the traditional classroom teaching position, such as in technology-supported jobs, jobs related to curriculum, and research-related jobs.

Factors Influencing Career Decisions

The second research goal focused on the factors that affect graduates' choices to go into jobs other than traditional teaching. Financial gain, personal interests, career opportunities, job availability, job security, job flexibility, awareness, professional identity, and social factors are potential factors that can influence the choice of career.

Descriptive Statistics

Table 3: *Factors Influencing Non-Traditional Career Decisions*

Factor	N	Mean	SD	Rank
Career Advancement Opportunities	300	4.28	0.61	1
Salary and Financial Benefits	300	4.21	0.65	2
Personal Interest	300	4.17	0.68	3
Job Availability	300	4.09	0.70	4
Career Flexibility	300	4.02	0.72	5
Awareness of Alternative Careers	300	3.94	0.75	6
Job Security	300	3.87	0.77	7
Family/Social Influence	300	3.52	0.86	8

The highest means for making a career decision were opportunities for career advancement ($M = 4.28$, $SD = 0.61$), salary and financial benefits ($M = 4.21$, $SD = 0.65$) and personal interest ($M = 4.17$, $SD = 0.68$). High ratings also were given to job availability ($M = 4.09$) and flexibility ($M = 4.02$). The mean ($M = 3.52$, $SD = 0.86$) of family and social influence was the lowest. The findings indicate that the choice of alternative careers among graduates is more strongly motivated by the value of the profession and the economy rather than social expectations.

Correlation Analysis

Table 4: *Pearson Correlations between Career-Decision Factors and Willingness to Pursue Non-Traditional Careers*

Variable	1	2	3	4	5
1. Financial/Career Benefits	1				
2. Personal Interest	.48**	1			
3. Career Awareness	.42**	.46**	1		
4. Flexibility/Job Opportunities	.51**	.44**	.49**	1	
5. Willingness to Pursue Non-Traditional Careers	.59**	.63**	.55**	.57**	1

Note. $N = 300$. $p < .01$ (two-tailed).

All of the major career-decision factors were found to be statistically significant and positively related to willingness to pursue non-traditional careers using Pearson correlation analysis. The strongest correlation with willingness was for personal interest ($r = .63$, $p < .01$); the next strongest was for financial/career benefits ($r = .59$, $p < .01$), followed by flexibility and job opportunities ($r = .57$, $p < .01$) and career awareness ($r = .55$, $p < .01$). Graduates who experienced higher levels of personal interest, awareness, expected financial outcomes and employment conditions were more inclined to consider professions beyond traditional school teaching.

Multiple Regression Analysis

Table 5: *Model Summary for Predicting Willingness to Pursue Non-Traditional Careers*

R	R ²	Adjusted R ²	Std. Error of the Estimate
.741	.549	.543	.452

Table 6: *ANOVA for Multiple Regression Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	73.18	4	18.30	89.71	<.001
Residual	60.18	295	0.204		
Total	133.36	299			

The regression model was statistically significant, $F(4, 295) = 89.71$, $p < .001$. The four career-decision factors accounted for about 54.9% ($R^2 = .549$) of the variance in graduates' willingness to pursue non-traditional careers. The model's adjusted R^2 (.543) also shows that the model still has a large amount of explanatory power after accounting for the number of predictors.

Table 7: *Regression Coefficients Predicting Willingness to Pursue Non-Traditional Careers*

Predictor	B	Std. Error	Beta (β)	t	Sig.
Constant	0.421	0.182	—	2.31	.022
Financial/Career Benefits	0.218	0.045	.251	4.84	<.001
Personal Interest	0.291	0.043	.342	6.77	<.001
Career Awareness	0.176	0.041	.207	4.29	<.001
Flexibility/Job Opportunities	0.193	0.044	.226	4.39	<.001

All four predictors significantly and positively predicted graduates' desire to go into non-traditional careers. Personal interest was the strongest predictor ($\beta = .342$, $p < .001$), followed by financial/career benefits ($\beta = .251$, $p < .001$), flexibility/job opportunities ($\beta = .226$, $p < .001$), and career awareness ($\beta = .207$, $p < .001$). The results indicate that external employment conditions are relevant but that graduates' personal interest is most significant in influencing their decision on taking up alternative education-related careers.

Required Competencies

The third research aim analyzed the skills demanded in careers across the diverse education field. Literature studied for this project reveals that the competencies that are relevant and transferable are digital literacy, communication, creativity, leadership, research ability, project management, entrepreneurship, collaboration, critical thinking, and adaptability.

Table 8: *Descriptive Statistics and Ranking of Required Competencies*

Competency	N	Mean	SD	Rank
Digital Competencies	300	4.47	0.55	1
Communication Skills	300	4.39	0.58	2
Creativity and Innovation	300	4.31	0.62	3
Research Competencies	300	4.24	0.65	4
Leadership Skills	300	4.17	0.68	5
Project Management	300	4.08	0.71	6
Entrepreneurial Competencies	300	3.96	0.76	7

From Table 8, it can be seen that all the seven competencies are deemed important by the respondents for diversified education sector careers. Digital competencies were found to have the highest mean ($M = 4.47$) with a low standard deviation ($SD = 0.55$) making it very clear that students are aware of their digital skills. Communication skills ranked second ($M = 4.39$, $SD = 0.58$), followed by creativity and innovation ($M = 4.31$, $SD = 0.62$), research competencies ($M = 4.24$, $SD = 0.65$), and leadership skills ($M = 4.17$, $SD = 0.68$). Project management ($M = 4.08$, $SD = 0.71$) and entrepreneurial competencies ($M = 3.96$, $SD = 0.76$) were statistically significantly lower, but still positive, compared to the other areas. The results suggest that a pedagogical knowledge is not enough, but rather a multi-competence need: technological, interpersonal, creative, research, managerial and entrepreneurial skills are required for diversified activities in the education sector.

The quantitative results answer all the three research questions. First, the results showed that there are several non-traditional career paths available for Teacher Education graduates, including EdTech, curriculum development, instructional design, and educational research. Secondly, Career advancement, monetary gains, personal interest, employment opportunity, flexibility and career awareness are factors affecting graduates' career choices. Correlation and regression analyses also show that these factors are correlated with the intention of career non-traditional in a positive way, with the most significant factor being the personal interest. Thirdly, it was determined that competencies for career diversification would be digital competences, communication, creativity, research, leadership, project management and entrepreneurial skills.

Qualitative Findings

The findings of the semi-structured interviews with 15 Teacher Education graduates revealed five broad themes to offer further insights into graduates' perceptions and experiences of non-traditional careers in the education sector. The findings highlighted emerging career opportunities, motivations for diversification, barriers, required competencies, and the need for more career-oriented Teacher Education programs.

Theme 1: Emerging Career Opportunities.

There was a perception that the Teacher Education qualifications provide jobs outside of the classroom. They found the following career paths to be significant emerging areas of the EdTech

industry: EdTech, Instructional Design, Curriculum Development, Educational Publishing, NGOs, Corporate Training, Educational Research, and Consultancy. Emphasis was given to technology-related occupations in particular, where the participants thought that their pedagogical knowledge could be used in the field of distance education, creation of digital content, and instructional design. P3 explained, "A Teacher Education degree does not mean that we can only become school teachers. We can also work with online education platforms and develop digital learning materials." Similarly, P7 highlighted curriculum development as a relevant career because Teacher Education graduates already possess knowledge of learning objectives, teaching methods, and assessment. Nevertheless, the participants pointed out that there was a low level of awareness of some other professions, in particular, corporate training and consultancy.

Theme 2: Careers as a Way to Diversity.

Career growth, monetary benefits, being interested in the work, availability of jobs, professional development, and flexibility were cited as significant motivators to pursue non-traditional careers. There was a high level of personal interest; some graduates wished to stay involved with education but outside the traditional classroom. P2 said that, "I want to get into education, but more into design of learning materials and utilizing technology rather than teaching the same class each day." The participants also perceived that alternative career paths provided better prospects for being promoted, having higher compensation and for advancement in their professional development. Flexibility of online, freelance and project-based learning was another key motivation.

Theme 3: Barriers to Non-Traditional Careers

Even with a desire for career diversification, participants pointed to several obstacles that emerged as career awareness, lack of hands-on experience, lack of specific skills, traditional views about Teacher Education, and career guidance. P4 explained, "During my degree, most discussions were about becoming a school teacher. We were not properly introduced to careers like instructional design, EdTech or consultancy." The participants also noted that skills in practical application are often not fully acquired in Teacher Education, and that these are often required in technology-oriented jobs. Restricted experience with digital tools, content creation and learning-management systems was a particular challenge highlighted by P10.

Theme 4: Skills for New Job Opportunities

Participants highlighted the need for skills other than pedagogical ones in diversified employability. Often, digital competence, communication, creativity, research, leadership, project management and entrepreneurial skills were mentioned. Digital competence was presented in a particular way due to the increasing relevance of education supported by technology. P1 stated, "Digital skills are now essential. If graduates want to work in EdTech or instructional design, they need to understand digital platforms, online content and technology-supported learning." The same was true of communication, which was seen as vital between NGOs, training institutions,

research initiatives and training companies. Creativity, research and project management were also seen as important skills for participants to have in their various career settings.

Theme 5: Career oriented teacher education needed

The need to expand Teacher Education programs to train graduates for a wide range of careers in the education sector was strongly expressed by participants. They suggested raising the importance of counseling, practical digital trainings, internships, exposure to industry, project-based learning and entrepreneurship. P12 stated, "Students should have internships in EdTech companies, NGOs, research organizations and curriculum departments so they can understand how education knowledge is used outside schools." Similarly, P15 emphasized incorporating digital tools, entrepreneurship, and project management alongside traditional teaching courses. Overall, there was support for maintaining the pedagogical components of Teacher Education and reinforcing new career-related and transferable competencies needed for new job opportunities.

Integration of Findings

The findings of both phases of the study showed good convergence with each other after their integration. The quantitative results indicated that the most highly rated nontraditional career pathways were around EdTech, curriculum development, and instructional design. This was confirmed by the interview results, which revealed that these aspects of education—technology-based education, digital-content development and curriculum-related work—were seen as attractive alternatives to traditional classroom education.

For career decisions, the quantitative results showed that graduates' interest in their career, advancement, income, flexibility, and awareness of careers were important factors affecting their willingness to opt out of their career. The qualitative results further explained the quantitative results, as graduates showed a desire to develop their careers, improve their financial situation, have flexible schedules, and be able to continue to be engaged in education while enjoying their work.

There was also a high degree of consensus for both phases on the skills that are needed for further career development. Digital competence, communication, creativity, research, leadership, project management and entrepreneurial competence were all identified as significant, and in particular, digital competence was emphasized. Qualitative results, however, complemented the quantitative results by marking the survey findings with barriers like insufficient exposure to practicals, lack of career guidance, and traditional perceptions on Teacher Education. Overall, the integration verified the quantitative patterns and it added depth to the explanations of the motivations, competency needs and challenges of graduates for non-traditional careers.

Discussion

Non-Traditional Career Opportunities

The results show that Teacher Education graduates' self-perception of relevance to jobs outside of the traditional classroom is increasing as they become graduates. The most prominent career pathway was found to be Education Technology (EdTech), followed by Curriculum Development, Instructional Design and Educational Research. This is consistent with the continuous digitalization of education and the growth of professions based on technology. Similar to Dinger (2025), it can be claimed that the rapid process of digitalization and the use of internet-based learning are also changing the attitudes of prospective teachers towards their careers and providing alternative career opportunities. The results are also in line with the results of Rizqi et al. (2024) and Nabilah et al. (2025) in which it is found that the graduates of the education field are increasingly pursuing other professions, particularly outside the teaching field. Overall these results show that pedagogical knowledge is being transferred across the following domains of digital learning, curriculum, research, publishing, and other contexts that are emerging in the education sector.

Factors Influencing Career Decisions

An important factor in graduates' decisions for their chosen careers was their interests in career advancement, financial gains, personal interest, job availability and flexibility. Career advancement, with the highest descriptive rating, was the strongest relationship with willingness and the strongest regression predictor of willingness. This indicates that the level of attractiveness of the job employment conditions is not a decisive factor for diversification for students: They are especially interested in job diversification matching their interests and professional objectives. The result aligns with the findings of Pham et al. (2024) that highlighted that career exploration, self-efficacy, and contextual support are all factors in career choice. The results also support Social Cognitive Career Theory because the interest of the graduates, their anticipated career, their perceived opportunities and their environment were all interrelated in determining their willingness to pursue other careers.

Required Competencies

The results also show that skills that go beyond standard pedagogical training are important for career diversification. Communication, creativity, research, being a leader, project management and entrepreneurial skills were ranked next, with digital competence being the most important. This focus dovetails with the growing technology-focused jobs in the emerging education sector. In a similar study, Kocsis and Pusztai (2024) found gaps between the competencies graduates acquire and the skills demanded at work. The practical exposure to digital tools and specific professional skills also were found limited in the interview findings. In terms of Human Capital Theory, boosting these skills is an investment in the productive capacity of graduates and could have a positive impact on their employability in a variety of work environments (Gurung et al., 2023).

Integration of Mixed-Methods Findings

There was a significant convergence in the two phases of the integration of quantitative and qualitative evidence. The survey results were further confirmed by the interview participants, who highlighted the significance of digital skills, financial prospects, flexibility, personal and professional aspirations, and EdTech and related career fields. The quantitative results were complemented by the qualitative phase, however, which revealed: Career guidance was lacking, placements were not adequately practical, specialized skills were lacking, and traditional views of TE were barriers to diversification. The qualitative evidence thus provided corroborated the statistical patterns as well as deepened understanding of why graduates might not be able to find employment in other fields. The findings collectively show that Teacher Education programs should continue to have pedagogical foundations but expand their career preparation.

Practical Implications and Recommendations

The findings have implications for universities, Teacher Education departments, career counselors, employers and policymakers. Teacher Education programmes should be expanded to include alternatives to teaching, expand digital skills, and include internships at EdTech companies, NGOs, research institutions, curriculum departments, and other education-sector institutions. Teacher Education (TE) departments must implement career diversification courses and reinforce project management, entrepreneurship, digital and transferable skills needs in a hands-on and project-based approach. More exposure to professional environments would enable graduates to relate pedagogical knowledge to new job opportunities. Career counselors should raise the awareness of non-traditional careers by graduates, and offers systematic career plan and guidance for job according to the individual interests, competencies, employment opportunities. University-industry collaboration should be further strengthened and more internships, working visits to industry and training for graduates offered. Policymakers should seek to improve the congruence between the teacher education programs and evolving labor-market needs and should be willing to support policies that open up diverse employment avenues for Teacher Education graduates.

Conclusion

The present study focused on career diversification and opportunity for non-traditional work among Teacher Education graduates, career decision factors and skills needed for diversified employment among Teacher Education graduates. Results show that a range of non-traditional school teaching careers can be gained through Teacher Education qualifications. Alternative careers in the field of Educational Technology (EdTech), curriculum development, instructional design, educational research, publishing, civil society organization (NGO), corporate training, and consultancy were identified as relevant careers, with a specific focus on technology-related careers.

The study also showed that a number of personal and job-related factors affect the attitudes of graduates towards undertaking non-traditional occupations. Career advancement, financial considerations, personal interest, job opportunity, flexibility, and career awareness were significant factors and personal interest was the most prominent predictor for willingness to consider

alternative careers. Competencies which go beyond traditional pedagogical knowledge are also needed for successful career diversification. The skills most needed for success in new jobs in the education sector were recognized as skills such as digital competence, communication, creativity, research, leadership, project management and entrepreneurial skills.

The outcome of the integrated findings further underscored the barriers such as low awareness about career, lack of exposure in practice, lack of expertise and traditional views on Teacher Education. The results highlight the importance of expanding TE preparation with career advising, hands-on experiences, internships, and improved links with new and growing education sector industries. Overall, the study contributes to Teacher Education and graduate employability literature by demonstrating how pedagogical preparation can support diversified career pathways and by highlighting the competencies and institutional support required to prepare graduates for a changing education-sector labor market.

Limitations and Future Research

This study has several limitations, including a lack of information on how to support teachers to successfully diversify their careers and the fact that it looked at only a small number of individuals. The quantitative phase was a cross sectional study that took a snapshot of the graduates' perception and intentions about the career at one point in time and was not able to determine whether this perception changes as the graduates progress in their careers. Secondly, self-reported measures were used mainly, so response bias and personal perceptions may have affected the results of the study. Thirdly, the findings may not be generalizable to Teacher Education graduates in other educational and labor-market settings because of the geographic scope. Lastly, the number of individuals in the qualitative phase (15) was small and offered important explanations but might not reflect the richness of the graduates' experiences.

Longitudinal studies should be used to investigate career decisions and job outcomes of graduates over time. Studies are also required to be conducted at the workplace, with the aim of understanding the skills that employers are looking for in Teacher Education graduates. More comprehensive research involving different universities, regions and countries might give a more general picture on career diversification. Special emphasis needs to be placed on quickly emerging EdTech and digital education professions. Investigate the impact of the use of artificial intelligence, automation and new educational technologies on job opportunities, competences and professional roles for Teacher Education graduates should also be studied in the future.

References

- Akhtar, N., Aslam, N., Hussain, S. Q., & Memon, A. (2021). Qualitative Analysis of Diffusing ERE cycle in Teaching at Higher Education: Experiential Learning Practices in Pakistan. *Ilkogretim Online*, 20(5), 7525-7539.

- Ansari, R., Akhtar, N., & Hafeez, A. (2024). Exploring the Perceptions of Secondary School Teachers on Teaching Licenses in Sindh: A Qualitative Study. *International Journal of Social Science & Entrepreneurship*, 4(3), 126-147.
- Billones-Franco, M. X. D. P., Alpasan, M. J. T., Chavez, M. J. M., Cortel, C. H. G., Destua, K. B., & Dianson, P. B. (2024). Beyond the Blackboard: unveiling the diverse career landscape of education graduates. *International Journal for Multidisciplinary Research*, 6(4). <https://doi.org/10.36948/ijfmr.2024.v06i04.26414>
- Danish, F., Akhtar, N., & Imran, M. (2025). AI-Driven Personalization in Educational Marketing: A Framework for Enhancing Student Recruitment and Retention. *Journal of Political Stability Archive*, 3(2), 559-590.
- Dawborn-Gundlach, M. L. (2025). An investigation of alternative pathways to teacher qualifications in Australia. *Education Sciences*, 15(8), 956. <https://doi.org/10.3390/educsci15080956>
- Diamas-Palo, J. K. (2025). From industry to classroom: Lived experiences of non-education graduates as professional teachers in the senior high school level. *International Journal of Educational Management and Development Studies*, 6(3), 186-210. <https://doi.org/10.53378/ijemds.353248>
- Dinçer, B. (2025). Digitalization in mathematics education: how distance and online learning shape pre-service teachers' career perceptions. *Frontiers in Education*, 10. <https://doi.org/10.3389/feduc.2025.1639893>
- Diokno, J. P., & Erojo, L. (2025). "I'm curious – What influenced your decision not to pursue teaching after graduation?" *Diversitas Journal*, 10(3), 1311-1332. <https://doi.org/10.48017/dj.v10i3.3513>
- Falch, T. (2022). Teacher education and early teaching career. *Teachers and Teaching*, 28(8), 943-963. <https://doi.org/10.1080/13540602.2022.2137135>.
- Fuentes, A. C., & García, M. R. (2024). Digital competence analysis to inform current pedagogy and curricula. *Research in Education and Learning Innovation Archives*, 33. <https://doi.org/10.7203/realia.33.29257>.
- Gamage, A. N. (2025). A comparative analysis of qualitative and mixed methods research: Strengths, limitations, and practical applications. *World Journal of Advanced Research and Reviews*, 25(3), 2040-2046. <https://doi.org/10.30574/wjarr.2025.25.3.0947>
- Gomez, S. M., & De Luna, A. B. M. (2023). Competence training and employability. *Journal of Educational and Social Research*, 13(1), 1. <https://doi.org/10.36941/jesr-2023-0001>.
- Govindasamy, P., Cumming, T. M., & Abdullah, N. (2024). Validity and reliability of a needs analysis questionnaire for the development of a creativity module. *Journal of Research in Special Educational Needs*, 24(3), 637-652. <https://doi.org/10.1111/1471-3802.12659>
- Grosemans, I., & De Cuyper, N. (2021). Career competencies in the transition from higher education to the labor market: Examining developmental trajectories. *Journal of Vocational Behavior*, 128, 103602. <https://doi.org/10.1016/j.jvb.2021.103602>
- Gurung, S. K., Chapagain, R., & Thapa, B. G. (2023). Perceptions of Employability of Undergraduate Business Program Graduates: A Qualitative analysis. *Journal of Business and Management*, 7(01), 138-157. <https://doi.org/10.3126/jbm.v7i01.54557>

- Hafeez, A., Yaseen, G., & Imran, M. (2019). Management Paradigm Change in Pak-Turk (International Schools & Colleges) After a Failed Military Coup in Turkey: A Case Study.
- Haider, S., Mirwani, R., Imran, M., & Haider, H. (2025). The Emotional Landscape of Organizational Change: A Qualitative Study of Teachers in Lasbela, Balochistan. *Journal of Political Stability Archive*, 3(3), 1482-1502. <https://doi.org/10.63468/jpsa.3.3.98>
- Heusel, L., Glaesser, J., & Kelava, A. (2026). Career Transitions in Teacher Education: A Multigroup analysis of STEM and Non-STEM graduates. *International Journal of Science and Mathematics Education*, 24(5). <https://doi.org/10.1007/s10763-026-10682-y>
- Imran, M., Akhtar, N., & Khan, N. (2026). Ethical Leadership in Early Years Education: Implications for Teacher Professional Ethics and the Learning Environment—A Qualitative Study. *Journal of Political Stability Archive*, 4(1), 260-281. <https://doi.org/10.63468/jpsa.4.1.15>
- Izah, S. C., Sylva, L., & Hait, M. (2023). Cronbach's Alpha: a cornerstone in ensuring reliability and validity in environmental health assessment. *ES Energy & Environments*. <https://doi.org/10.30919/esee1057>
- Kakooza, A., Kaahwa, M. G., & Owino, P. (2025). Enhancing employability skills in Pre-Service Teacher Training: Strategies for Higher education Institutions in Uganda. A case study of Kyambogo University. *East African Journal of Arts and Social Sciences*, 8(2), 53-63. <https://doi.org/10.37284/eajass.8.2.2978>
- Kan, L., Degotardi, S., & Li, H. (2022). The impact of COVID-19 on the delivery of preservice teacher education: a scoping review. *Asia Pacific Education Review*, 27(1), 273-286. <https://doi.org/10.1007/s12564-022-09816-y>
- Keane, E., Heinz, M., & Mc Daid, R. (2022). *Diversifying the teaching profession: Dimensions, dilemmas and directions for the future* (p. 268). Taylor & Francis. <https://doi.org/10.4324/9781003188735>
- Kocsis, Z., & Pusztai, G. (2024). 'Where soft skills are (not) developing...': A study of graduates' skills and the role of university in preparing students for the labour market in Hungary. *Journal of Teaching and Learning for Graduate Employability*, 15(1), 409-429. <https://doi.org/10.21153/jtlge2024vol15no1art1826>
- Lo Presti, A., Capone, V., Aversano, A., & Akkermans, J. (2021). Career Competencies and Career Success: on the roles of employability activities and academic satisfaction during the School-to-Work transition. *Journal of Career Development*, 49(1), 107-125. <https://doi.org/10.1177/0894845321992536>
- Mankash, M. A., Ahmed, S. T., Shabbir, N., & Imran, M. (2025). Second Language Learning in the Digital Age: How Technology Shapes Language Acquisition at Universities in Karachi, Pakistan. *Liberal Journal of Language & Literature Review*, 3(1), 182-199.
- Nabilah, J., Ping, M. T., Hermagustiana, I., Sunardi, Sunggingwati, D., & Rusmawaty, D. (2025). From Teaching to Thriving: Exploring the lived experiences of English education graduates in Non-Teaching careers. *Borneo Educational Journal (Borju)*, 7(1), 158-177. <https://doi.org/10.24903/bej.v7i1.1973>

- Nilsson, P., & Cederqvist, A. (2024). Building teacher knowledge and identity– career changers' transition into teaching through a short teacher education programme. *European Journal of Teacher Education*, 48(1), 132–152. <https://doi.org/10.1080/02619768.2024.2432406>
- Othman, S., Steen, M., & Fleet, J. (2020). A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *Journal of Nursing Education and Practice*, 11(2), 75. <https://doi.org/10.5430/jnep.v11n2p75>
- Pardo, C. G., & Relon, L. P. (2023). Tracer study and employment of the teacher education graduates of a university in North Luzon, Philippines. *Asian Journal of Education and Human Development*, 1(1). <https://doi.org/10.69566/ajehd.v4i1.71>
- Pham, M., Lam, B. Q., & Bui, A. T. N. (2024). Career exploration and its influence on the relationship between self-efficacy and career choice: The moderating role of social support. *Heliyon*, 10(11), e31808. <https://doi.org/10.1016/j.heliyon.2024.e31808>
- Rizqi, S. D., Retnaningdyah, P., & Lestari, L. A. (2024). Phenomena of English teacher education graduates choosing careers other than teaching. *EDUKASIA Jurnal Pendidikan Dan Pembelajaran*, 5(1), 1061–1068. <https://doi.org/10.62775/edukasia.v5i1.940>
- Samakao, M., & Masaiti, G. (2025). An Employability Thermostatic Framework for enhancing graduate teacher employability in an evolving labour market. *British Journal of Multidisciplinary and Advanced Studies*, 6(2), 42–63. <https://doi.org/10.37745/bjmas.2022.04265>
- Seva, J., & Accad, A. (2025). Unveiling the Realities of Unemployment among BTVTEd Graduates: A Qualitative Insight into their Lived Experiences. *Psychology and Education a Multidisciplinary Journal*, 41(5), 661–679. <https://doi.org/10.70838/pemj.410510>
- Suryani, A., & George, S. (2021). "Teacher education is a good choice, but I don't want to teach in schools." An analysis of university students' career decision making. *Journal of Education for Teaching International Research and Pedagogy*, 47(4), 590–604. <https://doi.org/10.1080/02607476.2021.1903304>
- Tretyakova, T. V., Vlasova, E. Z., Buryanina, N. S., Egorovna, A. T., & Markova, L. L. (2021). Formation of digital educational ecosystem for teacher education. *LAPLAGE EM REVISTA*, 7(Extra-C), 249–258. <https://doi.org/10.24115/s2446-622020217extra-c1009p.249-258>
- White, S., Bourke, T., Mills, R., Mills, M., Van Leent, L., Wood, C., & Readette, M. (2024). Career change teachers: solving the teacher shortage? *European Journal of Teacher Education*, 48(1), 97–112. <https://doi.org/10.1080/02619768.2024.2407546>
- Zaidi, S. S., Imran, M., Khoso, F. J., & Sultana, Z. (2024). Impact of Technologies and Co-Curricular Activities on Students' Academic Achievement at the Undergraduate Level. *Journal of Social & Organizational Matters*, 3(3), 75–90. <https://doi.org/10.56976/jsom.v3i3.99>