Enhancing In-service Teachers' Capacity for Careers Education Integration at Middle Grade Level

by

Zahra Shafqat

(Registration No: 00000402638)

Submitted to the Department of Behavioral Sciences

School of Social Sciences and Humanities

in partial fulfillment of the requirements for the degree of Master of Sciences

National University of Sciences & Technology (NUST)

Islamabad, Pakistan

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A thesis submitted to the National University of Sciences and Technology, Islamabad,

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Master of Science in
Career Counseling and Education

Supervisor: Ms. Nadia Jahan

School of Social Sciences and Humanities
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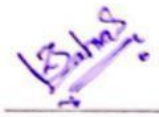

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DEDICATION

I dedicate this thesis to the students who inspire the pursuit of knowledge, the teachers whose dedication shapes future generations, and to the betterment of our country. May this work contribute, in some small way, to the advancement of education and the development of a brighter future for all.

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Zahra Shafqat

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ABSTRACT

In the contemporary landscape of youth unemployment and skills mismatch, a crucial element emerges in addressing these challenges is careers education. This study investigates the perceptions and readiness of middle-grade teachers in Azad Jammu and Kashmir (AJK) regarding the incorporation of careers education into their teaching practices, with emphasis on their training needs. The methodological approach adopted in this study was mixed methods sequential exploratory study design. In the first phase of the study, semi-structured interviews were done with 12 in-service English and Science teachers using an exploratory qualitative research methodology to ascertain their knowledge, attitudes, and level of readiness for careers education. The data was analyzed by using the reflexive thematic analysis (Braun & Clarke, 2021). During second phase, a 3-day training module was developed for in-service middle grade teachers by reviewing English and Science textbooks. Finally, in the last phase, training module was implemented and evaluated. Data was analyzed to determine the difference in teachers' understandings of careers education integration through descriptive analysis. The study underscores the need for continuous in-service training programs that equip teachers with the necessary skills and knowledge to deliver careers education effectively. This research suggests that effective integration of careers education requires focused professional development, strong policy support, and cooperation with external partners.

Keywords: *careers education; middle grades; teachers training; module development*

CHAPTER 01: INTRODUCTION

This chapter examines the importance of careers education for middle grade students, the necessity of professional development for teachers to effectively integrate careers education into their instructional practices, and the obstacles that impede teachers from incorporating careers education into their classrooms. It will highlight the importance of the study, identify the research gap, outline the research questions, describe the methodological approach, and articulate the purpose of the study.

1.1 Background of the Study

In the 1980s, professionals in specialized careers were perceived solely as information providers (Guichard, 2001). The concept of profession was analyzed by evaluating the attributes of those who engaged in it or achieved success in their practice (Davitz & Ball, 1978). In contemporary times, the socio-economic and cultural environment has shifted the focus from the professional vocation itself to the individual who carries it out. Hence, it is vital for us to get knowledge about the structure and composition of the profession. Career development is considered by focusing on personal growth and the ability to move between different occupations (Patton, 2022). Effective career advising necessitates career planning, as individuals manoeuvre through different choices within the school system and subsequently transition into the labour market (Wang, 2009).

The main purpose of education is to provide students with the essential skills and knowledge needed to navigate through life (Morita et al., 2018; Perry, 2008). This purpose is significant not only in the first phases of development but also during the entire lifespan (Super,1980). Careers education has gained new significance within the framework of lifelong learning (Patton, 2022). Careers education has the capacity to revolutionize the perception of educational material and foster the expansion and influence of practical

technical education (Akos et al., 2011; Recruit, 2017). Talib et al. (2015) conducted a study which demonstrated that a career program implemented in a Malaysian community college resulted in a significant rise in participants' scores on career planning. Eesley and Wang (2017) discovered that careers education increases students' inclination towards pursuing entrepreneurial jobs. The program's self-understanding prompted a change in decision-making on certain occupations in the fields of education, healthcare, and law. This study confirms that providing career-relevant information can influence the career goals of high school students. These shifts have mainly been observed in professions that are directly linked to the choice of undergraduate majors (Moriyasu & Kobayashi, 2022). For individuals to effectively discover appropriate employment and successfully manage their own professional trajectories, it is crucial to cultivate vocational competencies and acquire knowledge about both present and future career opportunities and skill requirements (Higuchi, 2005). Obtaining this labor market knowledge assists individuals in their lifelong process of integrating into the workforce, with a focus on achieving social and self-acknowledgement.

Careers education encompasses two crucial processes: Career advising pertains to providing guidance and recommendations regarding one's professional path, whereas career design focuses on the strategic planning and development of individuals' training and education for their careers (Kenny, 2018). However, it accurately captures the fundamental impact of education in achieving career goals (Fujita, 2011). Careers education aims at equipping individuals with the necessary skills and abilities to initiate and effectively manage their careers (Lemeni & Mihalcea, 2005).

The urgency to develop career abilities is typically at its peak when young individuals are faced with the deadline of transitioning from the familiar to the unfamiliar (Clarke, 2018; Heckhausen & Tomasik, 2002; Okay-Somerville & Scholarios, 2017). The sense of urgency

may rapidly diminish when the unfamiliar transforms into the current state of affairs: Young adults may delay the development of their skills for future use. Indeed, it is possible that there may be variations in how job competencies evolve over time, likely influenced by the attainment of goals. It is crucial to comprehend the evolution of career skills during the last stage of study before graduation and the initial months in the labour market (Brenninkmeijer, et al., 2013; Halbesleben et al., 2014). The labour market, as well as vocations, has grown increasingly volatile and unpredictable. In such circumstances, possessing agency and continuously enhancing career competencies is crucial for maintaining employability and achieving success in the labour market (Blokker et al., 2019; Bridgstock, 2009; Kuijpers, 2019; Schoon & Heckhausen, 2019; Tomasik et al., 2009). Studies have also shown that professional competencies are essential in helping individuals smoothly transition into the job market (Kuijpers & Meijers, 2012), as well as contributing to one's career achievements (Eby et al., 2003; Lent, 2013; Rogers & Creed, 2011).

The school-to-work signifies that young people experience stress as they navigate the transition from education to an unpredictable future, which is characterized by a lack of predictability (Grosemans et al., 2020; Lindfors et al., 2014). Moreover, the transition from education to the labour market is limited by a normative and rigid timescale (Tomasik et al., 2009). Prior research has demonstrated that various aspects undergo modifications prior to individuals joining the profession, including their level of goal commitment and their level of engagement in learning (Haase et al., 2012; Upadyaya & Salmela-Aro, 2015).

According to Super (1990), children between the ages of 12 and 14 undergo a developmental phase where they enhance their abilities and are in the process of exploring new opportunities. Obtaining relevant career information is important and involves what Stumpf et al., (1983) define purposeful acts and ideas as means of acquiring previously unknown knowledge about careers, jobs, or organizations. This is especially relevant for

adolescents who, as Super (1957) states, are actively involved in thorough career inquiry throughout this stage of their professional development. Approximately thirty years ago, early advocates of middle school education emphasized the significance of "learning experiences that directly address problems that are important to students" (Lounsbury & Vars, 1978). When considering relevance, it is important to consider the developmental requirements of early adolescents, along with other considerations. Careers education, which was first introduced in secondary schools in the 1970s, is a strategy that focuses on developing a curriculum that is both applicable and cohesive, while also meeting the developmental needs of early adolescents. "Learning becomes more meaningful when it is linked to real-life situations, and at the same time, young learners develop an understanding and appreciation for the roles of their families" (Gallivan, 2003). Smith (2000) found that career exploration programs for school children positively impact their academic and occupational advancement. Nevertheless, as per the findings of the Southern Regional Education Board (1998), nearly 50% of students who finished vocational preparation programs reported a lack of a definite career objective or assistance in formulating a study plan. Insufficient careers education may have restricted students' comprehension of potential job options (Hager et al., 2007). Consequently, it is advisable to initiate careers education at an early stage (Arrington, 2000). During the early adolescent years, students engage in fantasy and tentative decision-making, as described by Ginzberg (1952). Since the 1970s, educational programs focused on helping students with work-related activities, such as making career decisions, have been referred to as careers education.

Furthermore, career paths are often limited by factors such as gender roles, social values, and cultural norms, as discussed by Gottfredson (1981) and Cook et al. (1996). The effects mentioned by Fouad and Smith (1996) have a substantial effect on subsequent decisions about schooling and job paths. Moreover, individuals engage in significant

deliberation on their professional identity (Akos et al., 2004) and actively investigate and validate their job choices (Super, 1990). Osborn and Reardon (2006) argue that middle school students face mounting pressure to make significant decisions regarding their future jobs, such as selecting the educational paths they will pursue in high school. Careers education has manifested in several ways, including the implementation of the school to Work Act. However, the most widely suggested technique by careers education leaders, like Hoyt (2005), is the incorporation of career information into core curricula.

Smith (2000) suggests that middle school teachers and administrators can effectively push kids to prepare for and appreciate different occupations by developing a curriculum that is challenging and relevant. Nevertheless, although core subject instructors are anticipated to have a substantial impact on this developing career education strategy, there is limited research examining the viewpoints or attitudes of middle school teachers towards professional development. The inclusion of careers education integration in the curriculum for middle school students is a universally applicable solution, irrespective of their academic performance or level of participation.

The literature emphasizes that teacher competence is the crucial element in enhancing the quality of education (Fwu & Wang, 2002; Medley and Shannon, 1994; Pearlman & Tannenbaum, 2000; Shulman, 1986; Westera, 2001). To ensure universal access to education, the government must construct and expand numerous schools, recruit a substantial number of teachers, and furnish the necessary educational resources. The study by Miguel and Barsaga (1997) concluded that the instructor had a pivotal role in determining student achievement. The caliber of education is contingent upon the caliber of instructors, especially during the initial phases of schooling when students are in their early years, and notably in rural areas (Châu, 1996). The expertise and mentorship of educators other than career counsellors play a crucial role in influencing impressions (Akos et al., 2011).

Prior research conducted by Oppenheimer and Flum (1986) indicates that teachers may have a strong inclination towards careers education. Nevertheless, it is crucial to recognize the complex nature of these views, as they are shaped by multiple factors including diverse understandings of careers education, academic level, school objectives, and general perspectives on the role of educators. Teachers can significantly influence students' job performance by cultivating a stronger rapport with them, offering valuable insights on academic and professional domains, and alleviating the stress associated with making professional choices (Mau et al., 2017). Teachers have a vital role in assisting young individuals in developing their career identities and effectively transitioning into additional education and employment (Dodd & Hooley, 2018). Teachers can shape students' career decisions by serving as role models throughout instruction and assessment of their topics (Butera et al., 2021; Ekmekci & Serrano, 2022). This can be achieved by making the content more meaningful, aligning it with students' long-term objectives, and adopting a long-term perspective in teaching and learning (Butera et al., 2021). Competent educators can effectively perform career-guidance duties at a foundational level in three interrelated facets of the career-guidance process: personal development, education, and career planning (Tibu, 2019).

Most teachers at the basic and secondary school levels lack professional teaching degrees, and a significant proportion of them have not pursued education beyond the secondary school level (Kanu, 1996). Teachers have significant constraints in actively engaging in the effective execution of new curriculum or techniques (SACMEQ II, 2003). Teachers not only have to deal with limited access to knowledge, but they also confront institutional pressure to steer young folks towards decisions that primarily benefit the school or college, given its competitive demands (Akos et al., 2011). Hemsley-Brown and Foskett (1998) shown that teachers frequently had inadequate knowledge and awareness regarding

post-16 options and occupations. This lack of information influences the choices that teachers prioritize when talking to students daily. (Foskett et al., 2005).

Training is indispensable for enhancing the quality of education in schools (Karacan & Akçabozan, 2022). Providing training to instructors for career-guidance activities is a method to empower kids in a society that is undergoing significant changes (Croft & Wood, 2015). Previous studies have shown that training programs can effectively enhance the career-guidance skills of instructors who also serve as career-guidance advisers. Nevertheless, it is imperative that these educators acquire appropriate starting instruction, knowledge, and readiness for this occupation (Karacan & Akçabozan, 2022; Kuijpers & Meijers, 2017).

Allocating resources to teacher training for careers education has substantial advantages, such as fostering environment in which students are better prepared to make informed decisions and develop a successful career trajectory. Teachers' professional development should include a comprehensive understanding of the significance of career coaching in middle grades. Furthermore, it is important to emphasize the significance of incorporating the notion of careers education into educational policy and the professional development of teachers, as it pertains to mainstream school education (Hussain, 2020). An all-encompassing training program for careers education should include theories related to career development, thorough research on occupational aspirations, the evaluation of interests, needs, values, abilities, and other important factors, occupational categorization, and various sources of occupational information (Kasyanova, 2021).

1.2 Problem Statement

The global community has increasingly recognized that the problem of youth unemployment, and the increasing skills mismatch are major challenges (ETF, 2019; ILO, 2021; World Economic Forum, 2020). In Pakistan, there is a growing number of young

individuals who are facing difficulty in obtaining suitable employment due to a lack of skills that align with the demands of the work (Farooq & Muhammad, 2021; Labour Force Survey, 2021; Memon et al., 2019; World Bank Data, 2023; Zafar, 2016).

Furthermore, it has been observed that our teachers frequently lack the ability to provide sufficient guidance to pupils regarding their career decisions (Iqbal & Dool, 2023; Jahan et al., 2023; Zeb et al., 2022). The students fail to acquire the necessary scientific, mathematical, language-related, and other fundamental knowledge and skills. The issue arises from the unequal treatment of private and public-school systems by the government and the public. As a result, the quality of teaching varies across different school systems. For instance, there is a higher prevalence of underpaid, poorly trained, and unqualified teachers in low-fee private and government schools located in rural areas of Pakistan (Hooley et al., 2017; Kanwal et al., 2020). Due to inadequate teaching quality and disparities in the education system, kids have weak foundational academic capabilities (ASER, 2019). Therefore, upon careful observation, it becomes evident that there is a significant gap in educational opportunities between students attending elite private schools and government schools in metropolitan areas (Bilal & Malik, 2014; Iqbal & Dool, 2023; Nasir et al., 2017).

Careers education is important as adolescents who participate in this program have higher academic performance and possess a greater understanding of various job options (Akos et al., 2011; Hughes et al., 2016; Legum & Hoare, 2004; Orthner et al., 2010, 2013; UNESCO, 2022). A significant obstacle is the scarcity of resources like financial resources, particularly in the context of work-related learning, where there is a lack of skilled trainers.

1.3 Research Gap

Existing literature has examined the influence of careers education and trained educators on students' academic and professional lives; nevertheless, there is a dearth of

research concerning the middle grade level. This study focuses on the capacity building of teachers for careers education integration at middle grade level.

Research studies conducted in Pakistan have shown that there has been insufficient attention given to implementing the Common Core curriculum in grades K-8. These studies have also highlighted the gaps in either the absence of Common Core or its implementation in an inappropriate manner (Bilal & Malik, 2014; Tanveer-Uz-Zaman & Butt, 2014; Yaqoob et al., 2017; Nasir et al., 2017). Subsequently, this research focuses on the middle grade level particularly.

Moreover, given the existence of successful models in other nations like Japan, USA and Australia, it is particularly perplexing that Pakistan has been hesitant in embracing models in this field (Akos et al., 2011, Bilal & Malik, 2014; Hooley et al., 2017; Iqbal & Dool, 2023; Jahan et al., 2023; Tanveer-Uz-Zaman & Butt, 2014). Nevertheless, we are currently facing difficulties in this position, specifically in training our educators on how to incorporate careers education into their instruction. The absence of interactive teaching methods and the presence of untrained teachers result in poor quality of teaching, leading to students' deficiency in fundamental knowledge, abilities, and attitudes acquired (Najmonnisa & Saad, 2016; Osamwonyi, 2016). Therefore, this research aims to address the gap by examining the influence of training programs on the integration of careers education at the middle grade level, attributed to untrained educators.

Additionally, Iqbal and Dool (2023) have advocated for the improvement of teacher training to facilitate the integration of careers education at the middle grade level, addressing issues such as unemployment and skills mismatch. This research evaluates the impact of the teacher training program on the integration of careers education at middle grade level.

1.4 Purpose of the Study

The purpose of this research is to explore the perspectives, understandings and knowledge of in-service middle grade teachers in District Poonch, Azad Kashmir who are responsible for teaching English and Science and to enhance the in-service teachers' capacity for careers education integration at middle grade level.

1.5 Research Questions

This research is guided by following research questions:

- What are the perceptions of middle grade teachers regarding the provision of careers education?
- How can a training program enhance in-service middle grade teachers' capacity of careers education integration?
- How does the implemented training program influence teachers' knowledge and pedagogical skills for integrating careers education at middle grade level?

1.6 Research Objectives

The objectives of this study are:

- To investigate teachers' perceptions of careers education integration at middle grade level.
- To implement a training program for enhancing middle grade teachers' capacity for careers education integration.
- To evaluate the effectiveness of the training program on teachers' knowledge and pedagogical skills in integrating careers education at middle grade level.

1.7 Methodological Approach

The research is based on instructional design model ADDIE. In this research, ADDIE is used to develop and implement a 3-day training program for enhancing in-service teachers' capacity for careers education integration at middle grade level. Through this intentional and iterative process, we first conducted semi-structured interviews with 12 in-service middle grade teachers to explore their perspectives, understandings and knowledge regarding careers education integration at middle grade level. We then critically reviewed the English and Science textbooks to identify the spaces in the chapters to integrate four components of careers education using DOTS model. Based on the thorough analysis of interviews and review of textbooks, training program was designed, developed, implemented and evaluated.

Exploratory sequential mixed methods study design was used (Cresswell & Poth, 2018). Mixed methods research involves qualitative and quantitative data collection and analysis approaches within the same study (Creswell & Clark, 2017). Mixed method approaches provide the opportunity to investigate contextual aspects, such as culture, perceptions, and beliefs, in a qualitative manner, while also developing quantitative measures (Bergman, 2008; Onwuegbuzie et al., 2010)

The research is guided by the interpretivism idea, which posits the existence of many realities. Social scientists who adhere to this paradigm acknowledge and value the personal interpretation of social behaviour (Taylor & Medina, 2011).

The population for this study comprised in-service middle grade teachers in district Poonch, Azad Kashmir, who were responsible for teaching English and Science. The population was selected because they are directly involved in delivering career education during the crucial middle grades, when students are in the exploration stage (Super, 1980). Participants were chosen using purposive sampling (Palinkas et al., 2015; Patton, 2015). The method was chosen to get the in-depth data that is relevant to this study and enrich the

analysis to enhance our findings (Bischoping, 2009; Kothari & Gaurav, 2015; Rouse & Daellenbach, 2010).

1.8 Significance of the Study

This research might be highly significant as it highlights that trained teachers are highly equipped to incorporate careers education into their classroom practices, which is helpful for students for their lifelong learning and developing skills that are essential for employment. This study may influence education leaders, administration, training departments for reforms and organize continuous professional development programs for teachers to incorporate careers education efficiently. Findings of this study can inform policy makers and administration about resource scarcity and may influence them to allocate resources that are integral for careers education implementation in schools. This study may add to the existing literature regarding careers education, teacher training and educational outcomes which may lay a foundation for future studies.

1.9 Scope and Delimitation

This scope of this study involves in-service middle grade teachers who are responsible for teaching Science and English. Training program was specifically designed and developed for middle grade Science and English teachers in District Poonch, AJK. As this study provides valuable insights, it also has some limitations. One of the limitations is gender imbalance, as most of the sample included female population which might have resulted in different gender perspectives,

Second limitation is that some participants might have given socially desirable answers for which methodological triangulation was adopted. Third, post training observations in classrooms for careers education integration was not possible due to limited time so longitudinal studies are recommended for future research. Lastly, only three days

training program is not sufficient for teachers to grasp the whole concept of careers education and become professionals at integrating careers education, so it is recommended to training department to conduct continuous professional development programs.

CHAPTER 02: LITERATURE REVIEW

This chapter seeks to examine the significance of careers education in the development of pupils at the middle grade level. This chapter outlines the role of teachers in integrating careers education, their requirements for incorporating it into classroom practices, the challenges associated with its implementation, and a theoretical framework for a comprehensive understanding of the phenomenon.

2.1 Historical Evolution of Careers Education

The transition from an agricultural-based national economy to an industrial-based economy in the United States during the late 19th and early 20th centuries was closely associated with the emergence of vocational guidance. This transition was influenced by the industrial revolution spreading from Europe to the United States. (Parsons, 1908). As urbanization and occupational diversity grew, so did the national focus on improving vocational education and addressing the demand for knowledge on how individuals may find and pursue new work opportunities. By the late 1800s, especially in urban regions, the availability of detailed and extensive occupational information had increased to such an extent that families or neighbourhoods were no longer the main sources of job-related information or job distribution. Instead, more structured mechanisms, including basic forms of vocational guidance, started to develop in schools, settlement houses, and community centres (Guichard, 2001). One significant factor contributing to the growth of vocational guidance was the increasing migration of immigrants from economically disadvantaged countries to the United States in search of better opportunities (Brewer, 2011). At the same time, a similar trend was observed within the United States, with people moving from rural to urban areas due to the growing availability of urban jobs, especially in major cities where industries producing steel, furniture, automobiles, and other large capital goods were concentrated (Wilson, 2016). During both the early and late twentieth century, numerous

individuals advocated for educational reform, contending that schools were too focused on academic subjects, overly geared towards college preparation, and lacking in vocational training. Moreover, social reformers and human rights advocates were promoting an increasing moral imperative against child labour. They contended that labourers in the burgeoning economy of the early twentieth century were not to be regarded as simple property of employers, to be utilized and discarded, but rather as humans possessing intrinsic dignity and the right to choose their own destinies.

Cremin (1964), a historian of education, posits that a consequence of the Progressive Education movement throughout the late 1800s and the early twentieth century was the rise of the guiding movement, emphasizing vocational support. He argued that the social reform efforts of urban settlement workers played a significant role in the early development and implementation of vocational guidance in the schools of Boston and other cities during the early 1900s. Four significant factors contributed to the development of vocational guidance in the United States: the division of labour, technological advancements, the expansion of vocational education, and the proliferation of modern democratic systems (Brewer, 1942). Additional analysts expanded upon the correlations between the increase and reorientation of vocational guidance and counselling over the last century and the impacts of political or social occurrences such as legislation, national crises, changes in social values, the civil rights and women's liberation movements, and economic circumstances.

The research conducted by Borow (1964), Brewer (1942), Cremin (1964), and Stephens (1970) pertains to the era commonly recognized as the inception of vocational assistance in the United States. During this period, Parsons was widely acknowledged as the founder of the vocational guidance movement and the creator of the career counselling process. In his later years, Parsons shifted his attention towards industrial education and vocational guidance. He believed that a significant number of individuals, particularly

European immigrants, were being underutilized both economically and socially due to the disorganized way they entered the specialized realm of factory work. Parsons, like many of his contemporaries, criticized public schools for focusing too much on academic learning and argued that there should be a balance between book study and practical education. He suggested that children who work should dedicate some of their time to cultural classes and industrial science. The early forms of vocational guidance and counselling were developed in response to the problems and issues listed above, which include concerns about human dignity, the successful alignment of individuals with suitable employment, and the need for educational and societal reform (Wilson, 2016). The initial vocational guidance procedures were regarded as practical and compassionate methods to assist individuals in aligning their skills and interests with the demands of the job market.

The concept of career development was in its early stages, while a formal theory of career development had not yet been established. Parsons, in his conceptualization of the process, introduced the phrase vocational guidance. Parsons viewed vocational assistance as a personal and individualized process, which he referred to as "vocational counselling" (Cremin, 1964; Parsons, 1909). The individual expressed a desire to establish methods that would enable school children, adolescent school leavers, and adults to engage in genuine thinking regarding their career options.

In the 1950s and 1960s, as well as in later years, more significant theories of career development were established and examined. The career theories proposed by Roe (1956), and other scholars such as Holland (1966), Krumboltz (1979) have led to the development of various paradigms in understanding career behavior. These paradigms derive from interdisciplinary perspectives, including the effects of child-rearing practices on the development of work-related interests, the influence of behavioural styles or personality types on career decisions, and the significance of distinct learning experiences and life events in

shaping individual preferences. Roe (1956), Holland (1966), Krumboltz (1979) and Super (1957, 1990) pioneered the creation of numerous assessment tools (such as the Self-Directed Search, Vocational Preference Inventory, Adult Career Concerns Inventory, Career Maturity Inventory, Values Inventory, and Career Beliefs Inventory) and counseling techniques that put into practice the concepts found in career theories. The process of developing theories and creating new exams and career interventions proceeded throughout the remaining years of the twentieth century.

In the 1950s, 1960s, and 1970s, the ideas of theory building, individual differences, learning and development, trait-and-factor methods, personality typologies, and interest measurement were combined into more comprehensive sets of ideas. These ideas were developed over the period of time. As a consequence of this, the terminology that is utilized in the field of vocational advice and counselling has gradually altered to include phrases such as career guidance and career counselling. Several researchers, including Crites (1981), Gysbers and Moore (1971), Herr and Cramer (1996), and Wrenn (1964), as well as new views regarding the practice of career development, were influential in this transformation. During these decades, there was a process of strengthening and solidifying our understanding of career behavior and how it may be applied to design effective career intervention programs. The practice of career development is based on a collection of ideas and methods that were created and improved during the twentieth century (Herr, 1999; Savickas, 1999). A review of guidance research conducted in the Nordic nations from 2003 to 2016 reveals an expanding area of study focused on educational and vocational assistance within a school setting (Haug et al., 2019). Current research has prioritized rigorous investigations into the management and administration of career guidance, as demonstrated by the works of Bengtsson (2016) and Kjaergård (2012). In addition, there has been an increasing interest in researching and evaluating careers education for young kids in areas outside of this region, as

indicated by recent studies conducted by Hooley et al. (2015), Hughes et al. (2016), and Kashefpakdel and Percy (2017).

Researchers have acknowledged the significance of the correlation between obtaining career-related information and making effective career choices. Careers education offers systematic help to students in selecting their future career pathways. The importance of careers education has increased globally due to the changing work market and its capacity to address challenges such as unemployment and skills mismatch. Careers education originated in the early twentieth century with the introduction of vocational coaching by pioneers such as Frank Parson in 1909. Over the years, prominent theorists like as Donald Super (1953), John Holland (1959), John Krumboltz (1979), and Mark Savickas (2002) have made significant contributions to this field. Careers education has undergone significant changes in the modern era. Despite several technology developments, there are still impediments that impede their effective adoption in schools.

2.2 The Concept of Careers Education

Careers education refers to a range of activities conducted inside educational settings with the aim of improving the process of career development among students (Akos et al., 2011; Ali et al., 2012; Flum & Cinamon, 2006). Careers education encompasses a range of educational programs and activities inside schools that aim to foster self-awareness, investigation of many career options, and the process of making informed career decisions (Akos et al., 2011; Kenny, 2013). Careers education, unlike career guidance, encompasses actions that facilitate the transfer from educational institutions to the broader society. These activities are integrated into all educational levels, ranging from preschool to elementary, continuing through middle school, and culminating in high school education (Fujita, 2011).

Savickas (2008) recognized Tiedeman (1964) as the pioneering career theorist who emphasized purpose, rather than work, as the focal point of professional development.

Tiedeman (1964) defines career as more than just a linear progression of job, but rather as a deliberate pursuit of fulfilling one's life goals and ambitions. Tiedeman and Field (1964) asserted that meaning serves as a catalyst that propels individuals' careers and connects the gaps in their career trajectory as they navigate through developmental, personal, and professional changes. Tiedeman (1964) advocated for career counsellors to aim for the ambitious objective of motivating individuals to seek a purposeful life, as meaning is what permits people to deliberately transition from a condition of perplexity or change to their desired goal.

2.3 Importance of Careers Education in Contemporary Education System

One of the primary purposes of schools is to facilitate the acquisition of knowledge and skills to equip young individuals for their post-school lives (Bilal & Malik, 2014; Iqbal & Dool, 2023). In Pakistan, like in many other nations, most young individuals, usually after completing several years of additional schooling, will join the workforce and start earning a salary, either on a part-time or full-time basis. Depending on many considerations, such as family obligations, individuals will generally spend multiple decades working in a succession of occupations (Aiken & Johnston, 1973; Prediger & Noeth, 1979; Thoresen et al., 1967).

Students' career identity, self-confidence, well-being, satisfaction with counselling training, ability to stay committed, determination to make a positive difference in the lives of others, and career achievements are all enhanced by promoting their personal development, sense of direction, and self-understanding, as highlighted in the literature (Luke & Kiweewa, 2010; Roach & Young, 2007; Woodside et al., 2007; Yamaoka, 2009). Theoretical models in the field of career development highlight the significance of early-life phases in shaping career development and the decisions individuals make regarding their careers throughout their lives (Gottfredson, 1981, 2005; Super, 1990). These programs have the potential to improve the process of career development for children and society. Several scholars have

emphasized the significance of early career interventions and careers education as mechanisms that provide support and act as preventive measures in the realm of career development (Cinamon & Dan, 2010; Cinamon et al., 2019; Harkins, 2000; Hoyt, 1974; McMahon & Watson, 2017; Porfeli et al., 2008; Watts, 2001; Watson et al., 2015). Scholars have acknowledged that incorporating careers education programs within the curriculum would aid in the seamless assimilation of the younger generation into the evolving job market (Kenny, 2013; Perry et al., 2010; Yates & Bruce, 2017).

Morita et al. (2018) contend that the introduction of careers education programs in schools could potentially enhance the annual income of graduates, while certain daily activities have the potential to boost students' earnings. If kids assume coordinating positions in middle school or leadership positions in primary school, or both, their later wages may be higher consequently. It implies that the primary objectives of careers education, such as fostering skills in interpersonal communication, information use, future planning, and decision-making, should be given equal importance to vocational programs (Yamaoka, 2009). According to Menzies (2013), schools should prioritize maintaining students' ambitions and a smart approach to achieve this is by collaborating with parents/guardians to enhance their ability to assist their children's education. Menzies also determined that successful intervention programs were likely to encompass "exemplary guidance on career choices, practical exposure to work environments, and educational activities related to employment." Careers education is a crucial component of numerous educational systems that can foster social inclusion, resulting in social cohesiveness, economic prosperity, and societal advancement (Jenson, 2010; Norton & de Haan, 2013; OECD, 2011).

2.4 Global Trends in Careers Education

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan, supported the advancement of careers education as stated in the 1999 Central Council

for Education report titled "On Improving the Connection between Elementary and Secondary Education and Higher Education". Subsequently, it implemented multiple strategies to aggressively promote the growth of careers education. As of 2012, around 80% of elementary schools and nearly all middle and high schools employ staff focused on careers education. Moreover, 50% of elementary schools and 80% of middle and high schools have established annual guiding plans for careers education (National Institute for Educational Policy Research, 2013). In 2012, the participation rate of students in public middle schools in internships or job placements was 98.0%, as reported by the National Institute for Educational Policy Research. The internship completion percentage in high schools was 79.8%. The availability of opportunities to foster students' future occupational independence through the development of reasoning and motivation is on the rise. Schools have been offering up-to-date careers education to assist students in their progression towards further education and employment (Ishioka, 2007; Takase, 1998; Yamaoka, 1998). Therefore, careers education in schools aimed to facilitate the transfer from school to society, there were no significant problems.

Educational institutions in the United States have endorsed a comprehensive curriculum that include the implementation of careers education programs (Lapan, 2004; National Career Development Association, 2018). The United States seeks to enhance support for colleges and schools through the integration of professional routes and industry clusters (Debono et al., 2007; Lazarides et al., 2016; MacDonald & Marsh, 2004; Trotman et al., 2019). The goal is to adequately equip students to satisfy the requirements and standards set by businesses (Hamilton, 2012). In Australia, New Zealand, and the United Kingdom, careers education programs are assessed to ensure they satisfy the needs of young people in secondary education and beyond. This evaluation is conducted by the Career Development Institute, the Department of Education and Training, and the Education Review Office. In

2016, two significant policy announcements were made, highlighting the growing significance of career education in schools in New Zealand. Initially, a strategic blueprint was established to revolutionize career guidance in secondary schools and merge careers education with academic instruction, so ensuring that each student possesses an individualized professional roadmap. In addition, each school will employ a team of well-trained and highly talented career advisors (Yates & Bruce, 2017).

California established a three-tiered public higher education system comprising the California Community College System, the State College System, and the University of California, following the recommendations of the Master Plan for Higher Education in California (Coons et al., 1960). Community colleges fulfill several functions for students, such as helping in transferring to other institutions, providing remedial education, granting associate degrees in arts or sciences, and delivering vocational training (Solórzano et al., 2005, 2013; Villasenor et al., 2021). In addition, the Netherlands has implemented intervention programs in schools that consist of a personal development program, portfolio design, and individual discussions. The purpose of these programs is to provide students with assistance in the process of building their professional identities and to encourage independent study in the career development sector (Draaisma et al., 2017; Mittendorf et al., 2011).

The guidance counselling model in Ireland comprises three dimensions: personal and social, educational, and career guidance counselling. It encompasses two activities: guidance and counselling. The specifics are delineated in publications from the Department of Education and Science (DES) in 2005 and the National Centre for Guidance in Education (NCGE) in 2004 and 2017 (Hearne et al., 2016; Institute of Guidance Counsellors, IGC, 2016; Leahy et al., 2016). The National Institute for Careers Education and Counselling (NICEC) in England develops programs in this domain and is responsible for their

implementation and evaluation. Since September 2013, local-authority-maintained schools in England have been legally obligated to provide impartial career guidance to students (Long & Hubble, 2019). In England, the Education Act of 2011 has made secondary schools solely responsible for career and personal advising, because of changing policies over the past decade. The introduction of the Gatsby Benchmarks (DfE, 2018; Gatsby Foundation, 2014) has significantly impacted this agenda. It has also affected the nomenclature used, as one-to-one assistance is now referred to as personal guidance (Everitt et al., 2018). In contrast to Ireland, which takes a holistic and integrated approach, England maintains a clear distinction between personal functioning and professional responsibilities. The achievement of desired job outcomes is the primary focus of careers education, although issues regarding mental health and welfare are addressed through the provision of counselling services (DfE, 2016).

According to a recent poll conducted by Erlingsdóttir and Guðmundsdóttir (2017), 42% of compulsory education in Iceland provides students in 10th grade with elective or mandatory careers education. Additionally, this poll indicates that 78% of mandatory educational institutions hire school counsellors. Icelandic students appear to receive inconsistent levels of careers education (Røise, 2020). The Organization for Economic Co-operation and Development (OECD) states that Finland's career guidance and counseling system is a significant factor in the country's low educational dropout rates. As a result, career guidance and counseling are now mandatory in all Finnish schools' curricula (OECD, 2014a). Like Norway, careers education is a scheduled component of the curriculum in Finnish schools (Plant, 2003). As stated by Sweet et al. (2014), the curriculum includes a cumulative duration of 76 hours of planned activities throughout grades seven to nine. Trained school counsellors typically facilitate class-based activities, according to their report. Furthermore, there is a provision for personalized advice and collective counseling, as well as hands-on job experience in various professional settings (Finnish National Agency for Education, 2016).

As part of the comprehensive career education curriculum, every student in mandatory education dedicates a period of two weeks to get practical experience in a professional setting to familiarize themselves with the work environment (OECD, 2014). The integration of careers education into teaching practices in Finnish educational institutions is seen as one of the major strengths of the topic in OECD evaluations (Vuorela & Metsä, 2015).

2.5 The Role of Careers Education in Student Development

Careers education plays a major role in the development of students by providing them with career knowledge, opportunities for exploration, and the ability to make educated decisions about their preferred paths towards prospective advancement in the workforce. This requires the active involvement of all teachers in providing comprehensive learning program education to every student during their secondary school. The concept of guiding students' discovery is rooted in the idea that there are various paths for students' diverse development (EDB, 2014). Yousaf and Akhter (2018) emphasized the importance of developing information skills for students' professional advancement. Information skills are crucial for students' job growth since they enable individuals to effectively recognize and resolve workplace challenges. Evidence has shown that students who possess proficient problem-solving skills during their education are more adept at tackling problems, hence enhancing their prospects for success in their professional endeavours.

It is essential for the intellectual, emotional, and social development of kids to take part in extracurricular activities and sports outside of the classroom. Students are given the opportunity to gain and cultivate critical life skills that are important for their future careers through the participation in these educational activities. Despite the fact that education system of Pakistan focuses a large emphasis on academics, it usually overlooks the significance of extracurricular activities (Bohnert et al., 2010; Denault & Poulin, 2009; Fredricks & Eccles, 2006). Nevertheless, there is an increasing recognition that engaging in

sports and extra curricular activities can be advantageous in fostering students' professional trajectories. Literature (Ahmed et al., 2019; Maqsood et al., 2021) have demonstrated the importance of prioritizing co-curricular activities in the education and curriculum. This perspective is also critiqued from a career standpoint. This is because extra curricular activities are considered significant factors in developing soft skills or non-cognitive skills. Skills such as tenacity and grit are positively associated with future professional success. Research also indicates that these skills are crucial and can offset disadvantages in a less privileged school. Engaging in sports and co-curricular activities facilitates the development of emotional abilities. Students develop the ability to manage their emotions, enhance resilience, and promote self-confidence. These skills are essential for students to succeed in their career pursuits and personal lives (Hussain et al., 2017; Hussain, 2020).

According to Shavelson et al. (1976), who were the first to construct the theoretical basis for modern self-concept research, an individual's self-concept refers to their personal perceptions of themselves. It consists of comprehensive self-concepts that include emotional, social, and academic dimensions. The academic self-concept refers to a student's overall perceptions or attitudes on their academic accomplishments (Byrne & Gavin, 1996; Marsh, 1990c; Marsh & O'Neill, 1984; Shavelson Bolus, 1982; Wigfield & Karpathian, 1991). The academic self-concept is domain-specific, indicating that self-concept in a particular field, such as mathematics, does not automatically extend to other subjects, such as reading (Arens et al., 2011; Jansen et al., 2014; Marsh & Yeung, 1997). According to Zhang and Tang (2017), students that have a better academic self-concept possess confidence in their ability to study, which leads to increased motivation, persistence, and engagement in learning activities. In contrast, students who have a poorer self-concept in academics have reduced confidence and are generally less involved in learning activities (Nagengast et al., 2011). The self-enhancement model posits that self-concept plays a crucial role in determining academic

achievement. Therefore, improving careers education to boost self-concept could lead to improved academic performance (Calsyn & Kenny, 1977).

Research has confirmed that students who engage actively in their education, regard school as a significant experience, and exhibit enthusiasm in school activities are more likely to attain good academic achievement (Klem & Connell, 2004; Wang & Holcombe, 2010) and are less prone to school dropout (Finn & Rock, 1997). Specifically, the performance and involvement of students in middle school have a crucial role in their progress within the educational system and serve as significant indicators of their likelihood to graduate from high school (Blafanz et al., 2009). According to Perry (2008), students who perceive their education as meaningful and equipping them with the necessary skills to accomplish their future objectives are more inclined to excel academically and successfully complete their studies. An important teaching strategy emphasized in school reform initiatives is to enhance the relevancy of curriculum. This facilitates pupils in establishing a link between the subject matter and their environment or future ambitions (Orthner, 2007).

2.6 Careers Education at the Middle Grade Level

The primary obstacles in adopting careers education at the middle grade level are the growing academic workload and the evolving dynamics of student-teacher and peer relationships (Iqbal & Dool, 2023). Nevertheless, this can be a fruitful endeavour and serve as a chance for personal development and exploration by including careers education from a young age. Academic viewpoints on careers education support the idea of offering careers education starting from the early stages of education, as children naturally and subconsciously acquire knowledge about different professions (Hooley et al., 2017; Zaman & Butt, 2014). They are acquiring knowledge about various professions both within and beyond the educational institution through their parents, relatives, surroundings, and acquaintances. Consequently, it is simple for this inadvertent acquisition of knowledge to be transformed

into deliberate acquisition through careers education. By engaging in this activity, the adolescents cultivate sound discernment, enhance their ability to analyse and evaluate, and exercise forethought before acting (Mordal et al., 2020). Providing students with information and preparation for their careers has a beneficial impact on achieving their career goals (Akos & Kretchmar, 2017). Additionally, studies have found that engaging in career exploration can increase self-efficacy (Babarović et al., 2020; Turner et al., 2022), while self-improvement and self-awareness contribute to this as well (Zhang & Chen, 2020). Moreover, cultivating critical thinking abilities, sound judgment, and an eagerness to explore other careers has demonstrated advantages (Mordal et al., 2020). Guan et al. (2022) assert that self-efficacy beliefs have a direct and indirect influence on an individual's career objectives. When it comes to preparing students for their future jobs, experts contend that the cultivation of transferable skills, such as effective communication, self-assurance, sound decision-making, and critical thinking abilities, is crucial. These skills are valuable because they can be applied to a wide range of tasks and responsibilities. The perspective posits that in the age of progress, the labour market will necessitate the possession of multitasking skills. Research conducted in South Africa has demonstrated that career-related interventions, such as reflexivity and self-assessment, can enhance career adaptability (Maree, 2020).

Furthermore, research on school engagement has demonstrated that students who have a perception that their education is both important and purposeful in terms of preparing them to achieve future goals are substantially more likely to thrive academically and continue their studies until they graduate (Perry, 2008). Enhanced school participation not only diminishes the probability of adverse consequences, such as poverty, dependence on public assistance, and bad health conditions (Blafanz et al., 2009; Castellano et al., 2003; Plank, 2001), but also enhances the probability of students pursuing higher education or successfully transitioning into a career or job (Fredricks et al., 2004; Trice & King, 1991). In early

adolescence, pupils begin to develop their identities, influenced by elements such as occupational identity, gender norms, race, class, and social valuation. These effects can affect their future job progression. Although middle school students may not be predisposed to make conclusive career choices, they are influenced by the professions of their parents or community members and must select middle and high school courses that can significantly affect their future career opportunities and educational pathways (Akos et al., 2007). A study conducted by Orthner et al. (2010) revealed that 80% of the children surveyed who were starting Grade 6th had thoughts about their future careers, indicating a preparedness for exploring several career options. A study conducted by Kenny et al. (2006) found that low-income ninth-grade students who engaged in more career planning had higher levels of school valuing and a stronger sense of belonging to their school over time. In a similar vein, Perry et al. (2010) investigated the impact of career-planning assistance on the level of student involvement and academic performance in middle and high school, specifically focusing on low-income kids. Students who had a greater exposure to career-oriented planning were found to be significantly more likely to be actively interested in their education, according to the findings of Perry and his colleagues. Furthermore, their level of involvement in school was proven to be a strong predictor of achieving higher grades.

2.7 Integration of Careers Education

To achieve successful integration of careers education, it is necessary to adopt an "integrated approach" rather than teaching it in isolation from other courses or presenting it as a separate subject. This method aims to establish a relationship between various educational contexts and the real-world work environment (Blotnicky et al., 2018; Maree, 2020). Turner et al. (2022) argues that for effective integration of careers education, it is crucial to have a clear and detailed plan that aligns with an individual's personal congruence of career goals. This alignment is essential as it ultimately motivates individuals to explore new

opportunities. Integrative approaches aim to encompass more than just the incorporation of career-related activities and experiences into curricula (Maree, 2020). The integrative method refers to the combination of courses that share a set of skills that are well-defined and consistent across all curricula. These skills emerge from many subjects and are interconnected and mutually supportive (Daubney, 2021). Students can learn about vocations beyond the confines of the academic environment. Students gain professional awareness from their surroundings, as well as from their family and parents, either directly or indirectly (Welde et al., 2016).

The educational strategy for careers education integration has been promoted to enhance education in the 21st century (Hoeg & Bencze, 2017; Guzey et al., 2016). The essence of 21st-century education lies in the integration of collaborative and self-directed learning, enabled by the intentional use of technology and the creative application of existing knowledge to address real-world challenges (Dede, 2010; Howland et al., 2012). The integrative careers education is centred around real-world challenges that necessitate the use of engineering methods to find solutions. This approach encourages students to engage in self-directed and collaborative learning, as well as the practical application of scientific, mathematical, and technological knowledge (Kuo et al., 2019). Current research suggests that well-designed and executed careers education activities have the potential to increase students' motivation, foster higher-order thinking and integrated understanding, and equip them for future career advancement (Fan & Yu, 2017; Honey et al., 2014; Kuo et al., 2019). However, the implementation of integrated careers education poses a pedagogical difficulty for numerous teachers and teacher educators due to their potential lack of adequate technical knowledge and understanding of design thinking principles. There is a scarcity of research on teacher professional development, as evidenced by the small number of studies conducted by Al Salami et al. (2017), Chai (2019), Cavlazoglu and Stuessy (2017), and Lee et al. (2019).

Teachers must have the necessary expertise in subject matter, teaching methods, and related abilities to bring about the reform. Self efficacy of teachers is the evaluation a teacher makes of their own abilities to achieve the desired educational results based on their teaching responsibilities (Tschannen-Moran & Hoy, 2001). It is based on their evaluation of their career expertise, which encompasses their understanding of the subject matter, knowledge of teaching methods, and the integration of these two types of information to develop their pedagogical knowledge of content (Shulman, 1986). Teachers' self-efficacy is characterized by multiple dimensions. One aspect of a teacher's psychological state is to determine whether to initiate a reform and then commit the necessary effort to successfully implement the change (Deehan et al., 2017). When determining whether or not integrated careers education is successful in producing positive learning outcomes for students, the self-efficacy of the teacher is an essential factor to consider (Honey et al., 2014). Multiple scholars have emphasized the necessity of an integrative paradigm to tackle the issue of insufficient implementation in classroom practices (Honey et al., 2014; So et al., 2017; Roehrig et al., 2012).

2.8 Teacher's Role in Middle Grade Careers Education

Miguel and Barsaga (1997) conducted a study in which they investigated the many elements that influence the performance of children. These factors included the instructor, the student, the parents, and the community. The conclusion of the study was that the instructor played a significant part in influencing the level of accomplishment attained by the students. According to Chau (1996), the quality of education is directly proportional to the quality of the teachers who teach it. This is especially true during the early years of education, when pupils are still adolescents, and particularly in rural areas. In this case, the significance of elementary school teachers regarding their academic and professional skills is paramount. The literature emphasizes the value of the teacher's skill in subject knowledge, pedagogical

content knowledge, and curriculum knowledge for the academic performance of students (Chapman and Mahlck, 1997; Kanu, 1996; Chau, 1996).

Teacher self-efficacy refers to the level of confidence a teacher has in their ability to positively impact students' academic performance, even in the face of challenges or student apathy (Brouwers & Tonic, 2000). Research consistently shows that teachers who have high teaching self-efficacy are more receptive to new ideas and more willing to use innovative methods to meet their students' needs (Tschannen-Moran & Hoy, 2001; Weisel & Dror, 2006). Moreover, research has shown that when students have a higher sense of self-efficacy in a specific area, they tend to engage more in that subject, as demonstrated by the increased exposure they receive (Garvis & Pendergast, 2011). Teachers with stronger self-efficacy may be more inclined to include diverse possibilities into their classroom due to their heightened sense of competence (Habayib & Cinamon, 2023).

The attitudes of instructors have been identified as a crucial and influential factor in the successful implementation of educational programs (Lim, 2009; OECD, 2016; Oppenheimer & Flum, 1986; Reinke et al., 2011; Renju et al., 2010). Teachers' attitudes are a critical determinant in the efficacy of inclusion initiatives, particularly with the integration of students with disabilities into mainstream classrooms (Chow & Winzer, 1992; Hastings & Oakford, 2003; Hayes & Gunn, 1988; Williams & Algozzine, 1977). Gal et al. (2010) emphasized the significance of teachers' attitudes as a human environmental component that can support the inclusion of children with impairments. The attitudes of elementary school teachers towards career development can significantly influence their conduct in this area and their readiness to effectively implement intervention programs in education. Maier et al. (2013) emphasized the possible impact of preschool teachers' mood on classroom practices in the domain of scientific instruction in kindergarten. The researchers discovered a positive correlation between attitudes towards scientific teaching and both observed instructional

methods and adherence to a new science curriculum. Therefore, it seems that being exposed to a field in a good way at an early stage of development has a significant impact, highlighting the importance of career education during school.

A study conducted by Akos et al. (2011) revealed that middle school teachers strongly agreed that the curriculum should equip young individuals for future employment. They also recognized the importance of incorporating job and career-related topics within the core curriculum as part of career education initiatives. Akos et al. (2011) discovered notable disparities in teacher attitudes depending on the socioeconomic backgrounds of the schools. Teachers from schools with lower socioeconomic backgrounds had more favourable attitudes towards career education. Teachers at low socioeconomic schools may have a greater inclination to promote upward social mobility among students through the implementation of career education.

In addition, teachers play a crucial role in providing careers education to students by helping them choose school topics, career paths, and identifying their aptitudes and interests (Zeb et al., 2022; Ali & Shafiq, 2019). This supervision to students also requires monitoring their academic progress, familiarizing them with the prescribed curriculum, identifying exceptional learners, addressing their educational requirements, and aiding them in obtaining information regarding further education (Khan et al., 2012). The review indicates that teachers need to be at the forefront when delivering CGC to students. This endorses the concept of careers education, which relies mostly on teachers as it is incorporated into the curriculum.

2.9 Challenges in Careers Education

The problem of students lacking the necessary skills and knowledge for their future occupations is a long-standing issue that exists both on a global and national scale. Students may lack awareness of the specific knowledge and skills necessary for their desired

occupations, as well as the specific requirements of those occupations within their circumstances (Mupinga & Canigilia, 2019; Ridge et al., 2020). The students' lack of understanding regarding career preparedness highlights the discrepancy between the courses offered in schools and their chosen career paths in higher education and future professions (Kutnick et al., 2020; Mupinga & Canigilia, 2019). Consequently, students who are dissatisfied with academic subjects that do not interest them may be more likely to drop out, leading to increased stress and demotivation. In their study on disadvantaged kids in the United States, Lindstrom et al. (2020) found that college and career readiness is linked to the school, community, and family environments. When these environments are effectively supported, they contribute to a distinctive level of preparedness for college and careers.

The 21st century has witnessed intricate and perplexing restructuring of careers education for young individuals, leading to a dearth of systematic assistance for many (Hughes, 2017). In 2011, the Act assigned the duty of providing careers education directly to schools, without providing any specific funds, support, or expertise. This was a significant change, as most schools had previously relied on receiving careers education passively from other sources. The lack of effective careers education during this period led to a prolonged state of perplexity, loss of professional status, and departure of numerous practitioners (Neary & Priestley, 2018). The emphasis on employability skills and social mobility has become the primary catalyst for careers education in schools in recent years (Hearne & Neary, 2021). This has been elucidated by the necessity to more effectively synchronize schools with workplaces to enhance the ambitions of young individuals (Mann, 2012; National Career Council, 2013). The changes have had a significant impact on the careers workforce, resulting in a greater number of school-based careers counselors being engaged directly by institutions (Everitt et al., 2018).

The time constraints were the most significant logistical factors in implementing new, challenging standards, while they primarily affected students. Teachers and principals had difficulties due to limited class time, making it challenging to include teacher planning time for standards-related activities during the school day. Supplementary assistance for teachers, such as individualized guidance and highly esteemed materials, have the potential to alleviate time constraints in the classroom (C-SAIL, 2019).

Teachers have cited the lack of parental support as a significant obstacle, in addition to the issues associated with the diverse range of student needs and abilities (Hussain & Hameed, 2014). Undoubtedly, standards-based reform is a topic that generates disagreement in public opinion, and numerous parents find it challenging to comprehend or endorse this approach. The surge of opposition and limited understanding adds extra strain on teachers, schools, and districts (Ali & Abid, 2021). To tackle an unhelpful parental and community atmosphere, educational institutions and districts can prioritize the creation of fresh parental engagement initiatives, parental assistance, and increased efforts to communicate standards. Effective communication regarding the academic benchmarks that students are required to achieve in each grade helps minimize confusion among parents. Similarly, providing comprehensive explanations of test results and their implications for students can also alleviate any uncertainty (C-SAIL, 2019).

Studies indicate that children from privileged families are more likely to have access to superior educational resources, including highly skilled teachers, superior facilities, counsellors, and advanced curricula, which contribute to making more informed professional decisions (Kanwal et al., 2020; Munir et al., 2017). Consequently, this leads to enhanced readiness in educational institutions and can pave the way for more promising professional prospects in the future. Conversely, individuals from poorer socioeconomic backgrounds may lack access to education of equivalent quality. Consequently, individuals may encounter

difficulties in pursuing improved professional prospects or in vying for lucrative employment positions (Blustein et al., 2016; Kolodinsky et al., 2006; O'Brien et al., 1999; Wood & Kaszubowski, 2008). Inequalities based on social class can have a significant influence on career advancement by affecting the acquisition of skills and knowledge necessary for well-paid positions (Freeman et al., 2016; Hendricks et al., 1996; Hurtado et al., 2009; Nora & Cabrera, 1996).

The instruction provided by teachers about careers can be outdated or stereotypical due to their poor understanding (Reiss & Mujtaba, 2017). Classrooms are growing more diverse in terms of learning resources and requirements, which is causing teachers to struggle in delivering grade-level instruction that meets the standards to students with different backgrounds and skills (Munir et al., 2017). To meet the diverse needs of a student population with varying abilities, it is essential for educators to engage in conversations and aid in implementing effective instructional practices in their classrooms (Ali & Shafiq, 2019; Asghar and Ajmal, 2022; Hassan et al., 2022; Yaqoob et al., 2017). Given that the main obstacles to tackling this difficulty are probably related to expenses, organization, and direction, it would be beneficial to prioritize professional development for both principals and teachers that emphasizes the creation of an inclusive classroom and provides access to high-quality online educational resources (Flum & Cinamon, 2006).

Delivering ongoing professional development for teachers on integrating career education is difficult due to the sheer number of teachers to be reached and the necessity for regular updates to keep up with advancements in careers education. Sustainability refers to the consistent and enduring regeneration and efficient utilization of resources, while scalability refers to the ability to reach and spread ideas to a wide audience. These two traits, as identified by Albion et al. (2015) and Voogt et al. (2015), are crucial for achieving success. Obstacles to expanding and maintaining professional development include social and cultural

factors, insufficient technological, pedagogical, and content knowledge among teachers (Mishra & Koehler, 2006), inadequate infrastructure, limited Internet access, language barriers, and geographical distance (Edirisinghe, 2015).

2.10 Training Needs and Professional Development

The professional growth of teachers necessitates a continuous commitment to learning, starting with teacher education programs before they begin their careers and continuing throughout their whole professional life (Borko et al., 2010; Hawley & Valli, 1999; Little, 2006). Education reforms are initiated by implementing new methods, which in turn begin with providing training and opportunities for professional growth (Chennat, 2014). Numerous teacher education institutions encounter difficulties, with the most arduous one being the organization of internships, practice teaching, or school experience programs. The proficiency of a trained educator is contingent upon the calibre of the curriculum they were exposed to and the way it is executed. Kanu (1996) observes that teachers have significant constraints in actively engaging in the successful execution of new curricula or methodologies due to lack of training. The quality of teaching is influenced by various factors, including the teacher's professional competence. This includes their knowledge of the subject matter, pedagogical content, teaching and learning methods, curriculum, teaching experience, and certification status (Shulman, 1986, Grossman, 1995, Westera, 2001). Hammond (1999) research reveals a constant and substantial positive correlation between the percentage of highly trained instructors and student performance on the National Assessment of Educational Progress (NAEP) reading and mathematics exams. The success of a teacher is contingent upon their performance in the classroom, which in turn relies on their level of competence. Chapman and Mählck (1997) state that training is the most used method, either alone or in combination with other methods, to enhance the quality of instruction.

Shulman (1986) supports this notion by asserting that teacher capacity building programs should encompass all three forms of knowledge: subject knowledge, pedagogical content knowledge, and curricular knowledge (Medley, 1982). According to Westera (2001), competent performance is dependent on competence itself. Effective communication is fundamental to the practice of successful teaching. According to Wade and Moor (1992), teachers require pedagogical knowledge and training to become skilled educators who are self-assured in their abilities and have confidence in their students' potential. Pajares (1992) argued that teacher educators should consider the attitudes, expectations, and views of student teachers during their training term. This can facilitate the development of values and desirable skills among student teachers.

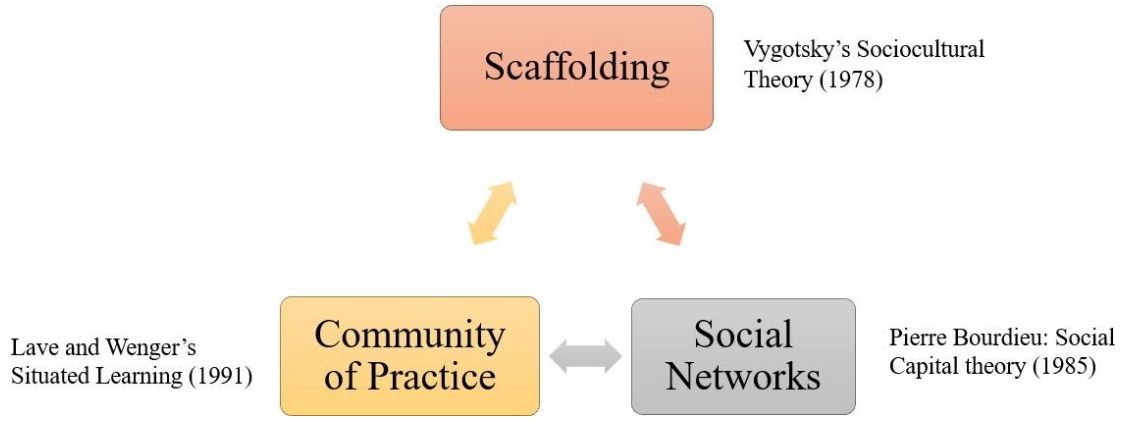
The objective of teachers' training is to enhance the social skills of teachers to successfully manage their students, consequently boosting their performance (Boudersa, 2016). The acknowledged advantages of teacher training encompass enhanced levels of student attainment, exemplary learning and instruction in educational institutions, enduring and favourable effects on student outcomes, fostering greater student engagement, efficacy, and motivation, and fostering a shared language to facilitate communication among educators across all sectors, settings, and stages (Alfaidi & Elhassan, 2020; Rockoff, 2004).

2.11 Theoretical Framework

This study is guided by the following theoretical framework.

Figure 1

Theoretical Framework



2.11.1 Social Networks

Social capital theory (SCT) was originally formulated by Bourdieu (1985) as the aggregate of tangible or intangible assets linked to possessing a stable network of established relationships defined by mutual recognition or acknowledgment. The core concept is that a network provides advantages to its members by facilitating access to the social resources embedded inside the network (Bourdieu, 1985; Florin et al., 2003; Portes, 1998).

It is possible to split social capital into two components: (a) the actual social relationships that enable individuals to access the resources possessed by their companions, and (b) the number and quality of those resources (Bourdieu, 1985; Hazen et al., 2016; Portes, 1998). Social capital can be divided into these two components. With regard to the social capital theory in the supply chain, the members of the chain engage with one another, which ultimately leads to the broad adoption of the network's norms and values. In addition, through the exchange of information, data, and analysis, they contribute to the overall improvement of the network's functioning. This notion has been corroborated by multiple investigations (Chiu et al., 2006; Hazen et al., 2016; Huysman & Wulf, 2006). In their 2005

study, Kankanhalli and colleagues claim that social capital is responsible for the creation of the conditions that are necessary for the dissemination of information and knowledge. On the basis of this premise, Hazen et al. (2016) argue that the social capital theory ought to be utilized in order to investigate big data, with the objective of improving sustainable performance.

2.11.2 Scaffolding

The concept of scaffolding, derived from construction work, refers to the support provided to a youngster or novice that allows them to successfully solve a problem, complete a task, or achieve a goal that would otherwise be beyond their abilities without assistance (Wood et al., 1976). Scaffolding is commonly associated with Vygotsky's sociocultural theory (Vygotsky, 1978). According to Vygotsky, learning occurs initially in a social context through interactions with others, and then it is absorbed at an individual level. Education is frequently facilitated by individuals, ideally by a more proficient individual like an instructor. Vygotsky's notion of the zone of proximal development is intricately connected to the concept of scaffolding. The zone of proximal development refers to the gap between a learner's ability to perform tasks on their own and their ability to perform tasks with assistance from someone who is more knowledgeable. Scaffolding can be defined as a form of assistance provided inside the zone of proximal growth, possessing specific attributes. The concept of scaffolding has been employed in studies examining dyadic interactions (Wood et al., 1978), interactions between a teacher and small groups of students (Van et al., 2014), and whole-class instruction (Smit et al., 2013). Van et al. (2010) described scaffolding in their review as a form of support that is marked by its adaptability or contingency, gradual reduction over time, and the transfer of responsibility for learning or a task to the learner. This attribute is seen as an essential prerequisite for the occurrence of scaffolding. If there is no conditionality in the support, then scaffolding is not occurring.

2.11.3 Community of Practice

Regarding Wenger's concept of community of practice, it is crucial to acknowledge that it has progressively evolved in terms of intricacy and emphasis. The notion of CoP was first introduced by Wenger and Jean Lave in their 1991 paper, "Situated learning: Legitimate peripheral participation." Lave and Wenger employed an anthropological viewpoint to contend that learning encompasses more than mere reception or absorption of knowledge. According to Lave and Wenger (1991), learning is better understood as "increasing participation in communities of practice". Wenger et al., (2011) provided a more contemporary definition of CoP as a "learning partnership" when individuals mutually benefit from learning together about a specific field. They utilize one another's practical expertise as a valuable learning asset". According to Wenger (2004), the domain of a community of practice refers to the specific area of knowledge that unites the community, shapes its identity, and outlines the essential topics that members must focus on. The domain, therefore, is the defining characteristic that establishes the unique identity of a group and sets it apart from a mere gathering of friends or a network of social contacts. The collective group of individuals living in a specific geographic area or sharing common interests and goals. According to Wenger (2004), the community refers to the individuals who find the subject matter important, the level of connection between members, and the determination of who is part of the community and who is not.

CHAPTER 03: METHODOLOGY

This chapter provides a comprehensive review of research methodology, research design, and philosophical paradigm employed to explore teachers' perceptions of careers education integration at the middle grade level, along with the development of a module for teachers' capacity building and the enhancement of in-service teachers' capacities for careers education integration at middle grade level. This chapter encompasses the data collection and analysis processes, as well as the ethical considerations implemented to ensure compliance with research ethics.

3.1 Research Methodology

The research is based on instructional design model ADDIE (Carkhuff & Fisher, 1984; Molenda et al., 2003; Ritchey et al., 2011; Shambaugh & Magliaro, 2006; Smith & Ragan, 1999; Sugar, 2014). In this research, ADDIE was used to develop and implement a 3-day training program for enhancing in-service teachers' capacity for careers education integration at middle grade level. Through this intentional and iterative process, we first conducted semi-structured interviews with 12 in-service middle grade teachers to explore their perspectives, understandings and knowledge regarding careers education integration at middle grade level. We then critically reviewed the English and Science textbooks to identify the spaces in the chapters to integrate four components of careers education using DOTS model. Based on the thorough analysis of interviews and review of textbooks, training program was designed, developed, implemented and evaluated.

The ADDIE instructional design framework is used when it comes to design training programs for teachers (Branch, 2009). This model has five phases: Analysis, Design, development, Implementation and Evaluation. Each stage of this study corresponds with the phases of ADDIE. The analysis phase of ADDIE involves an instructional issue which is explored, and needs are identifies. In our study, we used analysis to explore teachers'

perspectives, their understanding, knowledge and needs to integrate careers education at middle grade level. During the design phase of ADDIE, we identified the objectives of our training program and outlined the content of the program which helped in giving a structure to our training module. The third phase of ADDIE is development, where we developed the training module which involved lesson plans of 6^{th}, 7^{th} and 8^{th} grade English and Science textbooks, training manual, and training plan. During the last two phases of ADDIE, the training program was implemented and evaluated using pre-posttest to see the difference in their understandings regarding careers education integration at middle grade level.

3.2 Research Design

Mixed methods research encompasses the integration of qualitative and quantitative data gathering and analysis techniques within a singular study (Creswell & Clark, 2018). This research approach integrates qualitative and quantitative information to deliver a thorough solution to a research problem. Data integration, the systematic merging of quantitative and qualitative data, can transpire through multiple methodologies and at diverse levels during the study design, data collecting, data analysis, and reporting/data interpretation phases (Creswell & Clark, 2017). Exploratory sequential mixed methods study design was used (Cresswell & Clark, 2018; Morse & Niehaus, 2009) to enhance in-service teachers' capacity for careers education integration at middle grade level based on ADDIE. An exploratory sequential design is a mixed methods research framework in which the quantitative data gathering, and analysis occur subsequent to the qualitative data collection and analysis (Fetters et al., 2013).

Mixed method approach provides the opportunity to investigate contextual aspects, such as culture, perceptions, and beliefs, in a qualitative manner, while also developing quantitative measures (Onwuegbuzie et al., 2010). In addition, the integration of data enhances the reliability of qualitative findings when the quantitative results align with them in an exploratory sequential design. There is a need for mixed method research that explicitly

focus on investigating teachers' attitudes and requirements for integrating careers education at the middle grade level. Therefore, the purpose of this study is to explore the perspectives of middle grade teachers who are responsible for teaching English and Science regarding careers education integration.

Integrating two techniques may be more beneficial than employing a singular methodology due to the incorporation of methodological triangulation (Bergman, 2008). A researcher aims to improve the precision of their comprehension of a research topic by directly contrasting results derived from one methodological approach (qualitative or quantitative) with those from another (quantitative or qualitative) to discern areas of concordance or discordance (Clark & Ivankova, 2016; Teddle & Tashakori, 2009; Ventakesh et al., 2013), as this is likely to provide a more holistic understanding of the phenomena under investigation that cannot be entirely grasped through the exclusive use of either qualitative or quantitative methods. A mixed-methods design integrates multiple data sources, facilitating the analysis of complex issues, thereby increasing certainty and broadening the implications of the conclusions (Lund, 2012; Maxwell, 2016; Morgan, 2014; Poth & Munce, 2020; Shorten & Smith, 2017).

3.3 Population and Sampling

The population for this study comprised in-service middle grade teachers in district Poonch, Azad Kashmir, who were responsible for teaching English and Science. The population was selected because they are directly involved in delivering career education during the crucial middle grades, when students are in the exploration stage (Patten & Newhart, 2018; Super, 1980). If the needs of students are not adequately met during this time, there is a risk of them becoming diverted from the correct path. Determining sample sizes is crucial and relies on factors such as representation, subject-matter competence, and theme saturation (Brisebois et al., 2016). In the qualitative phase of this investigation, Guest et al.

(2006) defines the appropriate sample size as attaining saturation between 6 and 12, with 30 being the maximum limit. To achieve QUAL saturation in this paper, the objective was to obtain a sample size of n = 12. For the quantitative phase of study, a sample of 30 teachers were selected, and teachers training program was implemented and then evaluated using pre and posttest.

Table 1

Participants Demographic for Phase 1

GENDER	AGE RANGE	QUALIFICATION	GRADE LEVEL	SUBJECTS
Female	34-39	MA/MSc	6th-8th	English
Male	46	MA/MSc	7th-8th	English
Male	40-45	MA/MSc	7th-8th	Science
Female	40-45	MA/MSc	6th-8th	English
Female	28-33	MPhil	5th-7th	Science
Female	28-33	MPhil	6th-8th	Science
Female	40-45	MA/MSc	7th-8th	English
Female	40-45	MA/MSc	6th-8th	English & Science
Female	34-39	MA/MSc	8th	Science
Female	22-27	MPhil	6th-8th	Science
Female	28-33	MPhil	6th-8th	Science
Female	34-39	MPhil	7th-8th	Science

Table 2

Participants Demographics for Phase 3

SR. NO.	TEACHING EXPERIENCE (YEARS)	SUBJECT
1.	5	Science
2.	5	English
3.	19	English
4.	7	English
5.	2.5	English
6.	8	Science
7.	3	English
8.	4	Science
9.	3	Science
10.	5	Science
11.	7	Science
12.	15	English
13.	10	English
14.	10	Science
15.	2.5	English
16.	3	Science
17.	2	Science
18.	3.5	Science

SR. NO.	TEACHING EXPERIENCE (YEARS)	SUBJECT
19.	7	Science
20.	5	Science
21.	6	Science
22.	16	English & Science
23.	10	English & Science
24.	25	English & Science
25.	24	English
26.	18	English & Science
27.	30	English & Science
28.	21	English

3.4 Sampling Technique

Participants were chosen using purposive sampling (Palinkas et al., 2015; Patton, 2015). As our study required sample with specific characteristic, teachers who were responsible for teaching English and Science at middle grade level with minimum three years of experience. The method was chosen to get the in-depth data that is relevant to our study and enrich the analysis to enhance our findings (Barnsbee et al., 2018; Bischoping, 2009; Kothari & Gaurav, 2015; Rouse & Daellenbach, 2010).

Inclusion Criteria involved teachers who were currently employed with minimum three years of teaching experience of English and Science at middle grade level in government schools. Teachers with less years of experience or who were not currently employed were excluded. This helped to collect the data that was highly relevant to our study and research objectives.

3.5 Research Paradigm

A research study is generally guided by research paradigms, which relate to the researchers' core philosophical convictions about truth, reality, and the research subject (Maxwell, 2005). The text encompasses the researchers' presuppositions regarding ontology and epistemology, which serve as guiding principles for the research process. Ontology is the branch of philosophy that deals with the fundamental nature of truth, specifically focussing on the nature of reality. Epistemology concerns the nature and expressions of human knowledge, particularly focusing on how we attain comprehension of reality (Cohen et al., 2007). A researcher may utilize several approaches to uncover truths and obtain knowledge, contingent upon their objectives. Mixed-methods research is a technique that integrates multiple methodologies to systematically and ethically answer research inquiries (Bryman, 2012; Creswell, 2015; Creswell & Plano Clark, 2011). This entails the collection, analysis, interpretation, and presentation of both qualitative and quantitative data. The research is guided by the interpretivism idea, which posits the existence of many realities (Guba & Lincoln, 1994). Social scientists who adhere to this paradigm acknowledge and value the personal interpretation of social behaviour ((Bryman, 2016; Taylor & Medina, 2011). Interpretivists possess the ability to comprehend social processes and subsequently analyse and interpret them. Interpretivism is informing the analysis at every stage of this research. It emphasises the subjective nature of knowledge, allowing me to explore the perceptions and understandings of teachers regrading careers education integration at middle grade level. This approach recognises that the meaning is constructed through personal experiences, making it essential for me, as a researcher, to interpret the participants' perspectives and understandings within their specific social and educational contexts. By using interpretivism, I can delve into the nuanced, context-dependent insights that teachers hold regarding careers education.

3.6 Data Collection

For phase one, 12 semi structured interviews (Gibson & Brown, 2009) were conducted with in-service middle grade teachers who were teaching English and Science. To achieve clarity in the areas of investigation and evaluation, Arksey and Knight (1999) advocate for the inclusion of two interviewers. However, this perspective is contradicted by Whiting (2008), who argues that a single interviewer is adequate. Whiting (2008) supports this claim by offering comprehensive interview guidelines. This paper employs a solitary interviewer, as per the methodology outlined by Whiting (2008). The semi-structured interview questionnaire (see Appendix 5) for this study was designed according to the protocols and recommendations established by Scheele and Groeben (1988), Graneheim and Lundman (2004), and Whiting (2008). These guidelines highlight the need of basing the questions on the literature that has been evaluated.

Moreover, these instructions determined the location for the research, which in my research was the staffroom of the school or an empty room. It was ensured that no one could cause any disruptions during the interview. In addition, the participants were given a concise overview of the research, and the objective of the interview was explicitly explained. The interviewer provided an explanation of the different sections of the questionnaire and ensured that the entire session adhered to the predetermined ethical guidelines. The interviews were conducted orally, utilising probing approaches to get a precise and unambiguous response. The interviewer transcribed the participant's responses word-for-word, recording them on both tape and interview answer sheets. Recording the interviews provide a comprehensive approach for collecting data (Creswell, 2017).

For phase two, English and Science textbooks were reviewed in detail to identify the spaces to integrate careers education using DOTS model (Law & Watts, 1977). Teachers were contacted to suggest the chapters to develop careers education-based lesson plans. After

careful review of these textbooks, lesson plans were developed by integrating components of careers education using the content of the chapters. Expert reviews were done, where teachers provided their valuable feedback and suggestions to improve the lesson plans. Six lesson plans were developed, following progression. In grade 6th English and Science lesson plans, self and opportunity awareness were integrated, in grade 7th English and Science lesson plans, self, opportunity awareness and decision making were incorporated, while for grade 8th lesson plans, it was made sure to incorporate all four components: self, opportunity awareness, decision making and transition learning into the lesson plans. Revisions were done to make the lesson plans practical and effective.

For phase three, pre and post tests were developed to see the difference in the understandings and perspectives of teachers regarding careers education integration into their classroom practices. During the third phase, where training was implemented, participants were asked to complete the pretest before starting the training and post test by the end of the training to see the difference in their understandings. The study participants were requested to fill out a survey that covered the test variables and research topics (Van De Walle, 1997).

3.7 Data Analysis

Data was analysed in two phases. In phase one, we used reflexive thematic analysis (Braun & Clarke, 2021) to interpret the data and enrich our analysis exploring teachers' perspectives, knowledge, understandings and needs. In phase three, descriptive statistics was employed to see the difference in understandings of teachers' perspectives, understanding and knowledge regarding careers education integration at middle grade level into their classroom practices (Field, 2018).

3.7.1 Phase 1

To analyse the collected verbatim, reflexive thematic analysis (Braun & Clarke, 2021) was employed. Reflexive thematic analysis is a method for analyzing qualitative data that is comprehensible and theoretically flexible. It facilitates the detection and analysis of patterns or themes within a particular dataset (Braun & Clarke, 2012). The reflexive approach to TA underscores the researcher's active participation in the creation of knowledge (Braun & Clarke 2019). An inductive approach was followed. Codes generated based on inductive approach are exclusively based on the substance of the data, without any pre-existing theory. In this study, the data is not coded according to a pre-established coding framework or theory. Instead, it is "open-coded" to accurately capture the meaning conveyed by the participants (Braun and Clarke 2013).

This study addressed the research questions using an interpretivist and constructivist paradigmatic framework. An essential premise we embraced for this study was to accurately represent educators' personal narratives regarding their views, beliefs, and experiences, while also acknowledging the impact of my own judgements as the researcher. I found that using Reflexive Thematic Analysis (RTA) was appropriate for my study as it facilitated the collection and analysis of qualitative data while honouring and representing the participants' subjective experiences. Furthermore, it recognized and accepted the reflexive impact of my interpretations as a researcher. Reflexive Thematic Analysis comprises six steps (Braun & Clarke, 2021) that enable researchers to recognise and address the significant elements of a thematic analysis.

Table 3

Phases of Reflexive Thematic Analysis as proposed by Braun and Clarke (2021).

Phase	Task	It was done by…
1	Familiarization with the Data	Transcribing and reading the whole data twice
2	Generating Initial Codes	Identifying codes, noting similar verbatims under the same code
3	Searching for Themes	Reviewing data and noting potential themes
4	Reviewing Themes	Reviewing themes and the codes grouped under it. Drawing thematic map to understand the connection better between themes.
5	Defining and Naming Themes	Reviewing and refining themes continuously; reading the verbatim again and again to come up with the most relevant title.
6	Writing the Report	Writing detail of each step and stages along with the verbatim

3.7.1.1 Familiarization with the Data. During this stage, I commenced my acquaintance with the data by first listening to each audio recording once before transcribing it. I employed an active listening exercise to acquire a thorough understanding of the primary subjects addressed in each interview prior to transcribing them. This also provided me with an opportunity, unencumbered by tasks like documenting facts, to recall gestures and behaviours that may or may not have been captured in the interview notes. I personally transcribed every dialogue immediately following the active-listen playback. Upon completing the transcription of all interviews, I meticulously examined each transcript several

times. At this juncture, I made a record of informal observations regarding the initial patterns in the data and noteworthy sections in the transcripts that could be of interest. In addition, I recorded my thoughts and emotions on both the data and the analytical procedure.

3.7.1.2 Coding. Coding is a flexible and dynamic procedure that frequently undergoes changes during the analytical process (Braun et al., 2021). Advancing through the analysis helped increase understanding of the data, which led to the discovery of new patterns of meaning. Both semantic and latent coding were employed. None was prioritized over the other. Instead, semantic codes were generated when meaningful explicit data was processed, whereas latent codes were derived from relevant underlying data.

The initial phase of coding was carried out utilising the 'comments' feature of a word document. This enabled the recording of codes in the margin, while also emphasising the specific section of text associated with each code. Maximum four iterations were done to ensure that codes were reflecting the data. A few codes were developed initially that weren't reflecting a clear meaning of the data, for example "challenges". This code was vague and wasn't conveying the meaning of the data. Like challenges in what? Through multiple iterations and reflexivity, it was improved and final code developed was "Challenges in completing the syllabus due to project-based learning" which is clearly conveying the meaning of the data. I documented the progression of my coding process in an excel sheet, where I recorded data items in the initial column and subsequent iterations of codes in each following column. I found it beneficial to emphasise the modified codes in each subsequent cycle.

3.7.1.3 Generating Initial Themes. This phase commenced once all pertinent data items were coded. The emphasis shifted from examining individual data points within the dataset to assessing the overall relevance and coherence of the dataset. The encoded data was analysed to ascertain how different codes could be combined based on common meanings to

generate themes or sub-themes. Themes must have distinct traits and may even display inconsistencies to other themes; yet they should together provide a coherent and lucid representation of the dataset. The identified themes are intrinsically linked to the data through an inductive approach. The inductive approach entails coding data without according to a known coding framework or the researcher's predefined analytical concept. This type of thematic analysis is guided by the data itself (Braun & Clarke, 2006).

I used excel sheet for reflexive thematic analysis, subthemes were developed from the data after fourth interview, so I was highlighting the codes that were similar or had potential to become sub-theme or theme.

3.7.1.4 Developing and Reviewing Themes. During this step, I conducted a comprehensive and iterative analysis of the probable themes concerning the coded data items and the entire dataset (Braun & Clarke, 2021). At this time, I began to realize that several candidate themes might not provide significant interpretations of the data. I conducted a bifurcated assessment. In the preliminary phase of the review, I analyzed the relationships between the data items and codes that elucidate each theme and sub-theme. Should the items/codes display a coherent pattern, it is deduced that the anticipated theme/sub-theme offers a logical explanation and may augment the overall narrative of the data. At the secondary level, the prospective themes were assessed in relation to the dataset. The themes were assessed for their capacity to provide the best suitable comprehension of the data in relation to the research questions. The researcher assessed the validity of each individual theme to evaluate if they accurately represented the meanings found in the entire data set (Braun & Clarke, 2006). The codes, subthemes, and themes were thoroughly examined during each phase. If I determined that a code was not accurately capturing the data, it was promptly modified. If there was any code that overlapped or was irrelevant, it was eliminated (King, 2004). During this phase, it became apparent that several themes lacked sufficient data

to substantiate them, or the data were too heterogeneous. Certain themes were more effective when presented as subthemes, whereas other subthemes required consolidation. (Braun & Clarke, 2006).

3.7.1.5 Refining, Defining and Naming Themes. During this step, I conducted a thorough analysis for each specific theme, where I identified the narrative associated which each theme and established its boundaries. The themes were not deemed conclusive until all the data had been thoroughly examined.

3.7.1.6 Writing-up. After determining the final themes, I initiated the task of writing the reports. To provide a clear and comprehensive account of the techniques employed to get our findings, I adhered to present both shorter quotes embedded throughout the narrative and lengthier block quotes. Each quote was accompanied by a distinct identifier to indicate the representation of different participants across the results. All the themes, including inconsistent data, were addressed in the concluding discussion portion of the manuscripts. In this study, we compared our results with the existing literature and determined the areas where our findings aligned, diverged, or contributed to the current knowledge on the subject.

3.7.2 *Credibility and Trustworthiness*

Guba and Lincoln (1989) asserted that the credibility and trustworthiness of a study are established when peers are presented with the experience and can acknowledge it. Credibility relates to the consistency between respondents' viewpoints and the researcher's representation of them (Tobin & Begley, 2004). Lincoln and Guba (1985) presented various ways to augment credibility, including prolonged engagement, persistent observation, data triangulation, and researcher triangulation. Peer debriefing was done as a means of obtaining an external assessment of the research process. This enhanced the credibility of the study. Credibility was assessed through member checking, which entailed verifying the findings and interpretations with the participants (Lincoln & Guba, 1985). To achieve dependability, we

ensured that the research process is defined by logical coherence, traceability, and thorough documentation (Tobin & Begley, 2004).

3.7.3 Phase 3

Descriptive analysis was employed to evaluate the data from the pre and post-tests of the quantitative phase of the study (Field, 2018). Descriptive statistics are numerical values that encapsulate the data to elucidate the events that transpired inside the sample (Thompson, 2009). The purpose of this descriptive analysis was to see the difference in understandings of teachers regarding careers education integration at middle grade level. This method was suitable to provide a summary of central tendency and frequency measures. The mean scores of pre-test and post-test were calculated which revealed the difference in understandings of teachers understandings. Frequency distributions were also examined which identified the variations in responses of the sample. Standard error bars were created in graphical representations to see the variability in the data. Smaller error bars mean less variability and higher reliability while larger error bars represent more variability and less reliability.

3.8 Ethical Considerations

Ethical clearance certificate was obtained from NUST ethical committee to get the permission to start collecting our data. All ethical considerations were strictly adhered to. Consent was taken prior to the interview; project information sheet was shared with participants before the interviews to ensure their willingness to participate in the interview. Anonymity was highly maintained during the analysis procedure to ensure confidentiality. All information was secured using instructional guidelines.

CHAPTER 04: FINDINGS

This study was aimed to answer three research questions. Based on those questions data was collected. This chapter will present the findings of this study and involves the major themes that generated from the data and the relevant verbatim will be added to them. This chapter will present the data from phase one and phase three collectively as presenting qualitative and quantitative data separately, even within the same publication, hinders the reader's ability to fully comprehend the process. In addition, within the context of an exploratory sequential design, the integration of data contributes to the enhancement of the dependability of the qualitative findings when the quantitative findings are in accord with the qualitative findings (Onwuegbuzie et al., 2010).

4.1 Purpose of Education

A major theme generated from the data was the purpose of education where participants shared their perspectives on the actual purpose of education. Based on that following subthemes were developed as shown in Figure 1.

4.1.1 Development of Skills and Interests

Participants addressed developing skills and interests of students as the major purpose of education, where it depends on education to develop and enhance students' skills and interests. As stated by particpants:

"ap bacho ka interest shru sy hi develop karain" (ID 1).

"apko communication ayegi apko interaction ayega logon k sath to better society ki taraf ap jayen ge" (ID 10).

"hum sab se important cheez jo hoti hai wo communication hai mein jisko kahun gi'' (ID 4).

Participants mentioned emotional development, character building and behavioral development as the core purpose of education. Enhancing students' skills and personalities so they can become respectable citizen of society was seen as the major finding from the data.

As participants highlighted:

ye hai k socialization k lye emotional aspect boht zaruri hai zahir hai emotions ko control Karna Apko pta hona chahye apko kab emotions ko control Karna ap ko pata hona chahye apko kab communicating hona hai kis trah ka hona ha assertive kab hona hai aggressive kab nahi hona. (ID 10)

"lekin basically education ka purpose ya hona chahia ka bacha respectable citizen aur respectable insan ban saky, jo mashray ka lia mufeed sabit ho saky" (ID 5).

"I think positive changing of behavior is basic purpose of education" (ID 6).

4.1.2 *Personal Development and Grooming*

Another major purpose of education that developed from the data was personal development and grooming that involved both personality and mental growth ensuring the well-established future of students.

"*Education ka basic maqsad e yhi ha k bacha khud ko establish kr sky" (ID 5).*

"bacha ko groom krna aur prepare krna taka wo society ma move on kr saka" (ID 8).

"The purpose of education is to groom the students" (ID 8).

"apki jo grooming hai, apka jo mental level hai uski grooming hai. ka apna move kesay karna hai dunia mein yani competitive world mein is education ko use karty hovy kesay move on karna hai" (ID 7).

"insan ki thinking main positiveness ani chahye" (ID 12).

4.1.3 *Societal Impact and Contribution*

A significant finding addressing the purpose of education was the influence and contribution of students to their society. Responses indicated that education not only equips

students with financial stability but also empowers them to assist others. A participant remarked:

"Wo financially ya kisi bhi tareeqy sy burden create ni karta hia balkay logo ko facilitate krta hai" (INT 12).

A participant further asserted that a well-educated student will not be a burden to society but will instead contribute to its advancement.

"in the same way financial way main bhi vo positive thinking is way main karega ka vo kisi par burden ni banega, uski thoughts main mashray ki up lifts shamil honi chiye" (INT 12).

"ek educated person mashray par ek burden ni hota" (INT 12).

Data indicated that the purpose of education was to cultivate entrepreneurs who not only work independently but also employ others; a well-educated individual considers not only their own interests but also that of others.

jiski soch ye ban gai hai mainy job ni karni hai ek business establish karna hai waha par main ek thory bary environment par kam karonga vo sirf apny profit ka liye, balky vo thinking is hawaly sy karega ka wahan par several people ko main employed karonga. (INT 12)

"vo dosro ka sahara banega aur dosron ko bhi opportunities provide karega" (INT 12).

4.1.4 *Differentiated Learning*

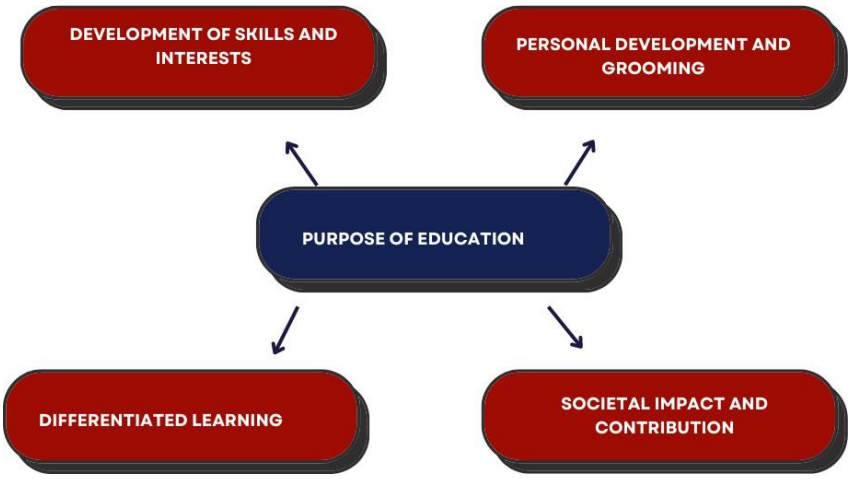
Data reported that based on individual differences, there should be different teaching learning strategies to meet the learners needs. As reported by the data:

"Kuch differences basically bachon k andar na differences hain" (ID 10).

"ap k bache ki nature Kya ha us k according ap ko Thora boht modify Karna chahye" (ID 10).

Figure 2

Figure shows the first major theme i.e. purpose of education and its subthemes



4.2 Familiarization with Careers Education

The findings related to teachers' familiarity with careers education revealed a significant gap in their knowledge (See Figure 2).

4.2.1 *Lack of Careers Education Awareness*

Many participants expressed unfamiliarity with the term itself, as indicated by statements such as*:*

"apka ye project hamare pass aya, uske baad hmaara aik mindset bana hum logon na search kia hum logon ke samny boht saray papers aiyen phir uske baad hum na is cheez ko parha" (ID 6).

Data revealed that participants lacked familiarity with career education prior to the interviews. Acquiring insights into careers education led them to acknowledge its significance and the necessity of its incorporation into classrooms.

"Ap yahan pe ayi hain to hmary mind me kch cheezen to ayen gi. K hum bachun ko is hwalay se kren" (ID 4).

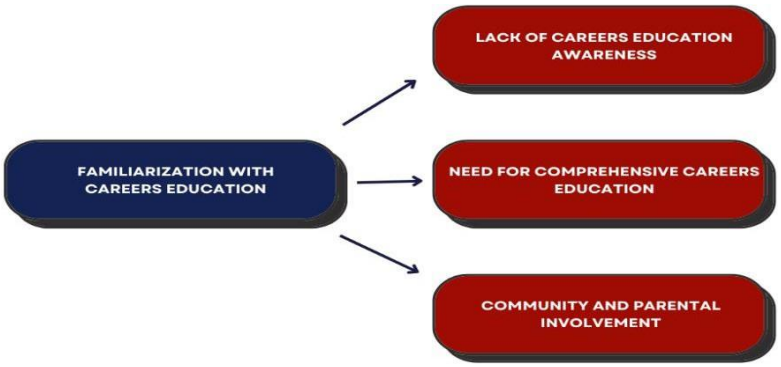
Participants emphasise on lack of familiarity with term careers education prior to the interview:

isse phely career education sincerely baat rahi hoon ke mujhe idea toh hota hai zahir hai hum logon lekin us tarf hamara focus hi nahi thaa ab jab se yeh project hamare pass aiya isko parhna shuru kia toh hum na focus kia ke career education bhi kuch hai. (ID 6

"shuru kia toh hum na focus kia ke career education bhi kuch hai" (ID 6).

Figure 3

Figure shows second major theme i.e. familiarization with careers education and its subthemes



This lack of awareness was further evident in their perceptions of the current curriculum, with many teachers believing that their existing teaching practices did not incorporate career-related elements.

"Nai yeh mtlb yeh jo he na yeh to hamare school jo education ho rai he na yeh to istarah se to nai he?" (ID 2).

Many teachers expressed limited knowledge about CE, its components, and its significance in education. Some were unfamiliar with the term itself.

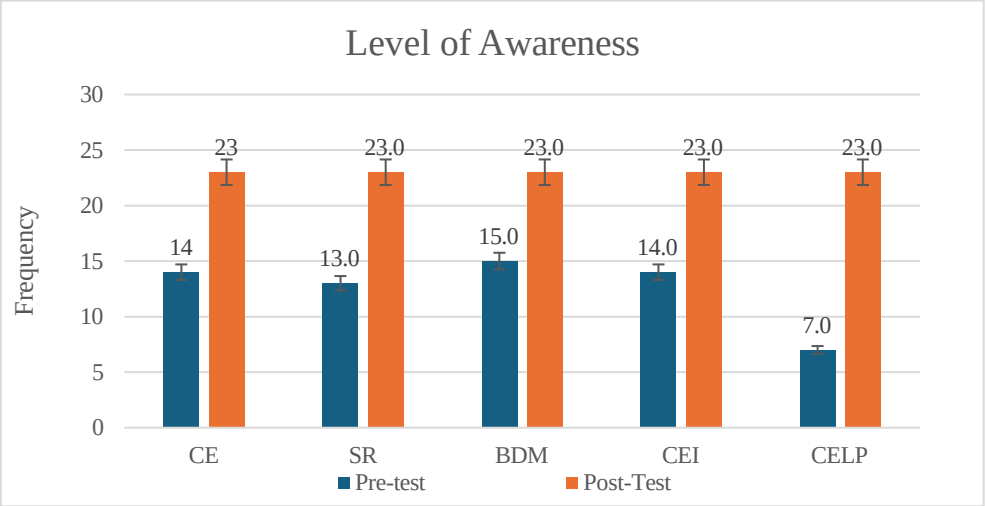
"Dekhien isse phely hum logon na career education pe koi itna focus nahi kia" (ID 6).

"*Meri tu itni maloomat ni h is bara ma baki apka bht shukria ap na mari knowledge m izafa kia, kyun ka hm bs parhatay hi hain tu itna knowledge ni tha is baray m hmara"* (ID 5).

Results from the quantitative phase of the study where training was implemented also validate the findings of qualitative phase. It was tested on Likert scale of 3, where 3 was "yes". It is evident from the bar charts where teachers' understanding regarding careers education, its significance for students' readiness, backward design model, careers education implementation and careers education-based lesson plans was tested, revealed that before the implementation of training program, participants were not familiar with careers education' significance but post-test shows otherwise. Standard error bars were used to represent the variability in the data.

Figure 4

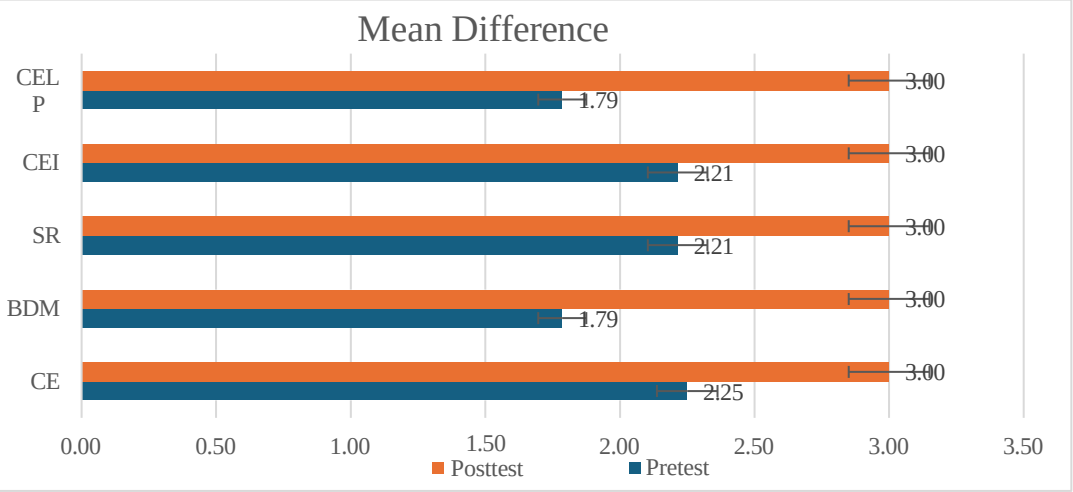
Bar chart represent the difference in pre and post test



As seen in Figure 4., data represents the mean difference in the pre and posttest. Data revealed a significant gap in teachers understanding after the training. Standard error bars associated with each mean score reveal less variability and higher reliability. It is evident the training implemented was effective as the bar charts show a significant difference in their understanding regarding careers education understanding at middle grade level.

Figure 5

Bar chart shows the mean difference in pre and post test



4.2.2 Need for Comprehensive Careers Education

Despite this limited awareness, teachers recognized the potential benefits of a comprehensive careers education program. They emphasized the importance of exposing students to a wide range of career options at an early age, stating that

"agar junior level pe wo aik cheez adopt kr lein gaye toh wo itny competent hojaiyen gaye ke wo kisi bhi jagah ja kar compete kar sakty hain" (ID 7).

Participants emphasized the importance of a well-structured CE curriculum, covering a wide range of career-related topics.

"*Thora sa hona chahiye ke bachon ko ke career opportunity unke liye kia kia hainn phir unko yeh hota hai na ke unko thora explore karne mein madad milti hai" (ID 4).*

They highlighted the need for a holistic approach to CE. Their attitude towards careers education implementation was quite positive.

"*School ke andr hamra jo government sector hai suke andr intahi zarurt hai iski" (ID 9).*

4.2.3 Community and Parental Involvement

Participants recognized the necessity of parental and community engagement in the careers education of students. They acknowledge the significance of community engagement and must collaborate with students to disseminate career-related information.

"hamre community ke log hain na wo bachon ke sath cooperate karien" (INT 7).

Data indicated the influence of family on children's job choices. Numerous students often select careers in accordance with familial expectations.

mein apni family ki missal apko de sakhti hoon hamare job achy hain Alhamdullillah hamare family mein zayada tar medical ka rujhan hai toh wo bachy unko shuru se hi hota hai ke hum na medical ki taraf jana hai jab ke parents bilkul chor dety hain. (INT 9)

One participant illustrated the importance of parental involvement in sharing career related information by stating that parents can manage some time for their children and share their personal experiences regarding their professions, this might help students in careers education.

"bachon ke parents hain wo aisa experience share kar sakhty hain jesa aik doctor hai dosra engineer hai toh wo bachon ke liye thora time manage kar ke kuch help out is tarha kar sakhty hain" (INT 7).

In alignment with this perspective, one participant emphasized the significance of careers education for parents as well. Exclusively offering careers education to

adolescents may be insufficient, as parents significantly influence their professional trajectories and career choices.

aik cheez zroor kahungi k parents ko career counselling ki career education ka batane ki kyunke parents boht bara role play krte hen apke bache ki usmen mtlb teacher jitnaa bi bolde agr parents ka ni hota toh iss waja se parents ka zroori. (INT 10)

4.3 Teachers' Role in Careers Education Provision

The findings shed light on the role of teachers for providing effective careers education to students in classrooms. Despite their limited awareness, participants recognized the teachers' role in successful incorporation of CE in classrooms.

4.3.1 *Teacher as a Counsellor*

Collected data revealed that teachers consider one of their roles is to act as a counsellor. As highlighted by a participant:

"Teacher ek counsellor kam karta hi karta hai" (ID 1)

Moreover, data provides evidence for teachers' role on providing guidance and counselling to students based on their interests. As highlighted by a few participants, there was a notable pattern in the data where participants were acknowledging that teachers' role is central in providing careers education to students by guiding and counselling them based on their interests. As indicated by participants:

"teacher ka pas is liye bhejty hain k vo usko guideline provide kary sedhy rasty par daly aur main smjhta hunk a career ka hawaly sy teacher ka role bhot hi bunyadi hai" (ID 12).

"jb hm koi subject parhata hn tu us ma uska interest level ka mutabiq ham usko educate kr skta hn usna kn sa profession ma jana h" (ID 8).

"Thora ap side by side bache k sath counselling kar len" (ID 10).

Participants also suggested to further explore the interests of students to analyse students' potential and interests to guide them accordingly. As highlight by the participants:

"hum mazeed us k interest ko explore kar sakhty hain" (ID 6).

"teacher class mein lecture ke douran aisa thora boht bata sakhty hain ke kon kon se career hain ap kis kis taraf ja sakhty hain" (ID 7).

"wo bachon ke potential ko dekh kar nadaza laga sakhta hai ke wok is taraf jaiyen toh jalwa dikha sakhty hain" (ID 7).

"bacho k interest ko daikhna ha aur un ko batana ha ka is ka kya use ha aur ya kaisa ho skta aur isko kaisa professional life sa link kr skta hn" (ID 8).

Not only provision of careers education, paricipants also highlighted that character building is also the responsibility of teachers, as students spend most of the time of their day with their teachers so building lifelong skills is one of the main roles of teachers.

"unki character building bhi teacher ki zimdari hai" (ID 9).

"as a teacher its our responsibility ka ya lifetime skill ham na bacho ma develop krni ha ka" (ID 8).

Participants acknowledged their roles not just as a guidance provider but also considered themselves as a main pillar of the society. It also emerged from the data that students tend to listen to their teachers more as compared to their parents which also signifies the role of a teacher in students' overall development.

"Teacher tu mashra ka ak bht aham satoon h aur kyn ka bacha teacher ki suntan b ziada ha" (ID 5).

"teacher jo hai parent ki tarha hota hai" (ID 7).

"main role teacher ka hi hai parents ka bhi role hai sab se phely lekin teacher ka main role hai" (ID 11).

"teacher pe, only solely depend krra he teacher pe" (ID 10).

4.3.2 Teachers' Need for Careers Education Implementation

A recurring theme in the data is teachers' needs for careers education implementation. Though, teachers were familiar with their role in CE provision, but they also acknowledged their capabilities and shared their needs to implement careers education efficiently into their classroom practices. As reflected by the data:

"jab tak staff ko khud nai ayega na khud woh train hoga to dosron ko phir kya training degi" (ID 2).

Participants shared their perspectives; their responses were a clear preference for the need of professional development. It is evident from the data that teachers' awareness regarding careers education integration is the first and foremost step to deliver careers education in classroom practices.

"hamare staff mei awareness honi chahiye kistrah k woh kaise krke apne bachon ko leke kaisi activity krwaye" (ID 2).

"bachon mein careers sy relevant jo skills hy unko kaisy enhance kia jae mtlb agar hum un mein koi core skills paida krna chah rahay hy tou wo teachers ko yeh training honi chahiye ky kaisy wo karega" (ID 3).

4.3.3 Management and Policy

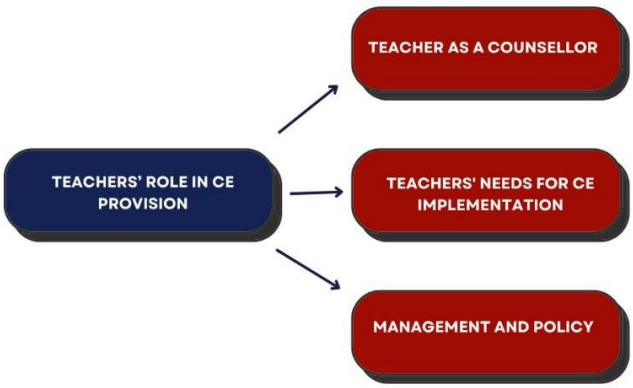
As participants highlighted their role and responsibilities as a teacher in successful careers education implementation, they also didn't forget to mention the huge role of management and policy makers. As stated by participants:

"so management ko bhi cooperate krna chahye or ye cheez add krni chahye" (ID 5).

"basic role hi management ka hai" (ID 6).

Figure 6

Figure shows third major theme i.e. teachers' role in CE provision and its subthemes



As highlighted by the participants earlier, how their rigid curriculum doesn't allow them to incorporate CE effectively, they shared their perspective on the role of management, pertaining the effective incorporation of careers education into curriculum contingent upon their cooperation and them issuing a notification regarding delivery of CE into classrooms, this will bound the teachers to incorporate CE into their teaching practices.

"management ki taraf se agar hamay instruction aati hain kea p yeh cheezien implement karwani hain toh I think ke kuch bhi impossible nahi hai" (ID 6).

Participants emphasised the role of management in careers education provision.

unko [management] ye remind karwana chiye once again ka waldain apny bacho ko bhejty hian usky sath uska career bhi tu us career related cheez sy mutaliq yaha par agaai di jay aur occasional trainings bhi di jay taky bacha jab yaha sy matric karky bahir jay to usky pas koi skills hon professionally vo kuvh kar saky (ID 12)

4.4 Implementation of Careers Education

Teachers identified various challenges in implementing CE and provided some recommendations that could be helpful in successful integration of careers duration at middle grades (See figure 6).

4.4.1 *Challenges in Providing Careers Education*

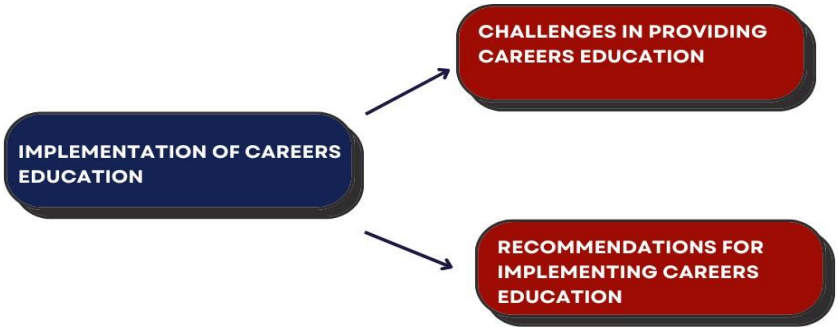
Teachers mentioned various challenges in CE integration including time constraints, lack of resources, and heavy academic workload. Lack of resources, including materials, technology, and professional development, hinders the implementation of CE. Resistance to change, particularly among older teachers, is a significant barrier.

"*phla ka log hn unko kch itna ata jata ni h, ajkl technology ka door ha aur unko shyd computer ki definition v ni ati ho gi(INT 5)*

"jo hamari purani teachers hen unko in cheezon ki awareness abi chalen nts jo araha he usmen unhone montessori bi rakha sab kuch yeh jo primary teachers hen unko in cheezon ki awareness nahi he" (INT 2).

Figure 7

Figure shows fourth major theme i.e. implementation of careers education and its subtheme



Teachers are overwhelmed by administrative duties and a demanding academic workload, resulting in little time for careers education. As one teacher stated,

"hamay har roz koi na koi circular aata hai, notifications aaty hain hum un notifications ko ly chalty hain hum ussy nikal kar bahir kam kar sakhty" (ID 9).

The current curriculum is inflexible and predominantly centred around exams, which poses challenges in incorporating novel concepts such as careers education.

"*Now one thing is that ka hm log syllabus bound hota hn(INT 8) ham bht restricted hoty hain ka hamara pas jo procedure hota ha us s guzr ka ya sb kr skta hn" (INT 8).*

In addition, limited time is the major challenge in implementation.

"mein apko sach bataon toh hamara pura time divided hota hai(INT 9)ussi period ke andr karna hamre liye muskil hota hai" (INT 9).

The rigid structure of the existing curriculum and the emphasis on examinations were also seen as obstacles:

agar project par laga detay hain, tu hamara syllabus reh jata hai, Syllabus rehny ki ye waja hai ka hamara pas itny achy students ni hain ka inko humay bhot time chapter ki reading karwany my lag jata hai vo phir reading karwany main phir chapter parhany main kafi time lagta hai. (INT 1)

"hum syllabus ke dour mein lagay hovy hain" (INT 7).

Additionally, teachers expressed concerns about a lack of resources and resistance to change among colleagues.

"*Facilities tu hmra pas na hona k brabr hn" (INT 5).*

"I think lack of resouces hi sab se main reason ha" (INT 6).

"ham limited resources ma bhi ya koshish krta hn ka jitna ho skta hn unko krwayn. (INT 8).

Several teachers have voiced worries regarding insufficient resources multiple times.

"q k hmary pas us tarah se resources nahi hoty, lack of resources h, jese lab equipments hain , hmary pas kafi saray nahi hoty" (INT 8).

"Resources na hony ke braber hain" (INT 9).

"hamara jo education sector hai wo wese bhi wo resources ke hawalay se kafi unlucky hai har hawalay se hi beshak wo experience ke hawlay se kar lein ya financial kar lein ya education ki quality" (ID 7).

Participants have mentioned the education system of AJK as the unlucky one, when it comes to resources.

"hamara jo education sector hai wo wese bhi wo resources ke hawalay se kafi unlucky hai har hawalay se hi beshak wo experience ke hawlay se kar lein ya financial kar lein ya education ki quality" (ID 7).

Data also highlights the hindrances in implementing specific teaching strategies. Lack of resources is the major barrier in implying respective teaching strategies.

"kabhi apky pas resources ni htoy kabhi kuch ni hota tu ziadatar use jo hoti hai vo abhi tak traditional lecture method hi hai" (ID 1).

4.4.2 *Recommendations for Implementing Careers Education*

To address these challenges, participants offered suggestions for effective CE implementation, such as incorporating CE into existing subjects, establishing separate posts for career counsellors at schools, and building partnerships with local industries. As one participant stated,

"har school main career counsellor ki ek post ho to ek counsellor achay sy guide kar sakt hai" (ID 1).

Teachers suggested integrating careers education into the existing curriculum.

"*hamara jo curriculum hai usme addition honi chahiye work related job hi topics hain job hi books hain wo ad honi chahiye" (ID 11).*

"mein kehta hoon aik naya curriculum ban'na chahiye jisme aik subject separately na ho toh baki subject ke sath link ho(INT 11), aur addition bhi honi chahiye" (ID 11).

Incorporating career related topics into textbooks was suggested by teachers.

"apka curriculum hai ya textbook hai usme is tarha k cheezien shamil honi chahiye" (INT 4).

"Main yeh kehti hn k kuch aur topics honay chahiye k jo hum bachon ko mukhtalif careers k baray mein bataye" (INT 3).

4.5 Teaching Learning Strategies

A recurring theme emerged from the data is the teaching learning strategies which participants shared can be useful in effective delivery of careers education.

4.5.1 *Effective Teaching Methods*

Data revealed that participants put significant emphasis on project/demonstration method but also shared that resource constraint is a significant hinderance in its effective incorporation.

"hum project method karwaty hain ya phir ap dekhain demonstration method sab sy acha rehta hai vo jo method hai idher ni hoskta" (ID 1).

Field trips, roleplays, playing educational videos in the classrooms were the strategies participants highlighted for efficient integration of careers education.

"yeh ho sakhta hai hum trips ka arrange kar sakhty hain" (ID 4).

"bacha ko roleplay sa krwa skta hn" (ID 5).

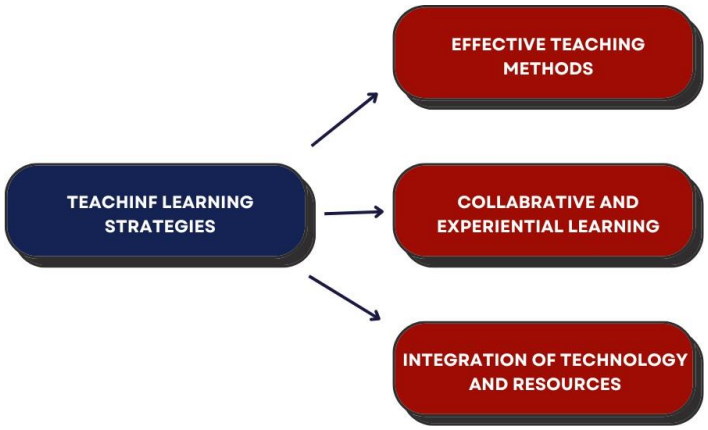
"ap bacha ko videos dikha skta hn un sa projects banwa skta hn js sa un k interest develop hta ha" (ID 8).

Developed countries' practices were looked forwarded to in successful implementation of careers education. Teachers suggested to move their strateiges from theory to practical to incorporate CE effectively.

"developed countries hain usme sab se phely practical hota hai phir theory hoti ha" (ID 4).

Figure 8

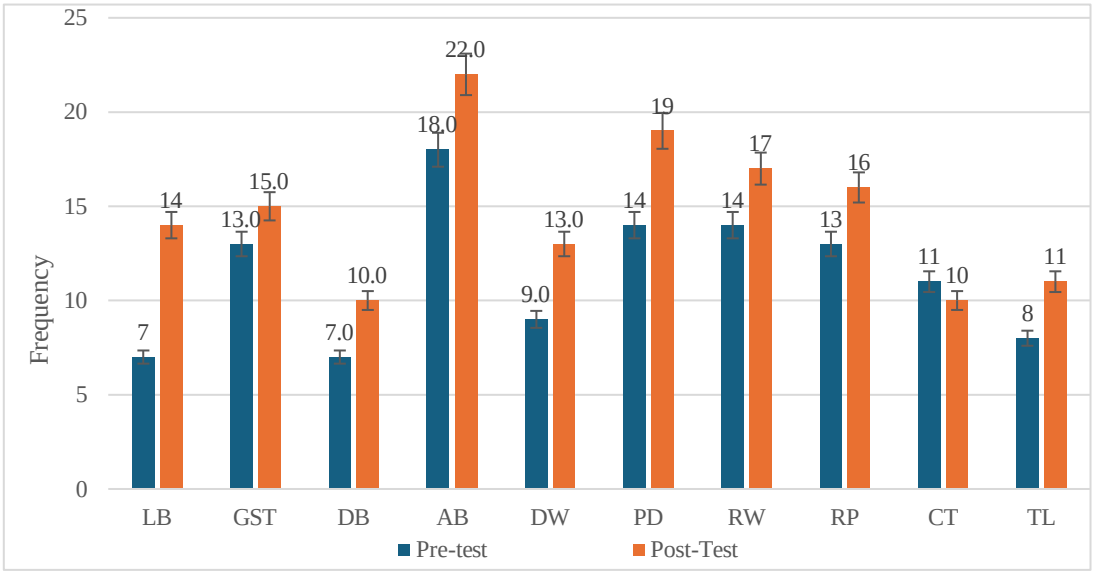
Figure shows the fifth major theme i.e. teaching learning strategies and its subthemes



In the quantitative phase of the research, teaching learning strategies were also tested during pre and post-test. As evident from the bar chart shown in Figure 8., there is a significant difference in some teaching learning strategies. As seen in the chart, teachers were already confident about their teaching learning strategies. Lecture based, guiding, sharing and telling, discussion based, activity based, drawing and writing exercises, presentation and demonstration, application of knowledge to real world, role playing, use of critical thinking for problem solving and reflection on teaching and learning were tested on Likert scale of 5 where 5 was "very confident".

Figure 9

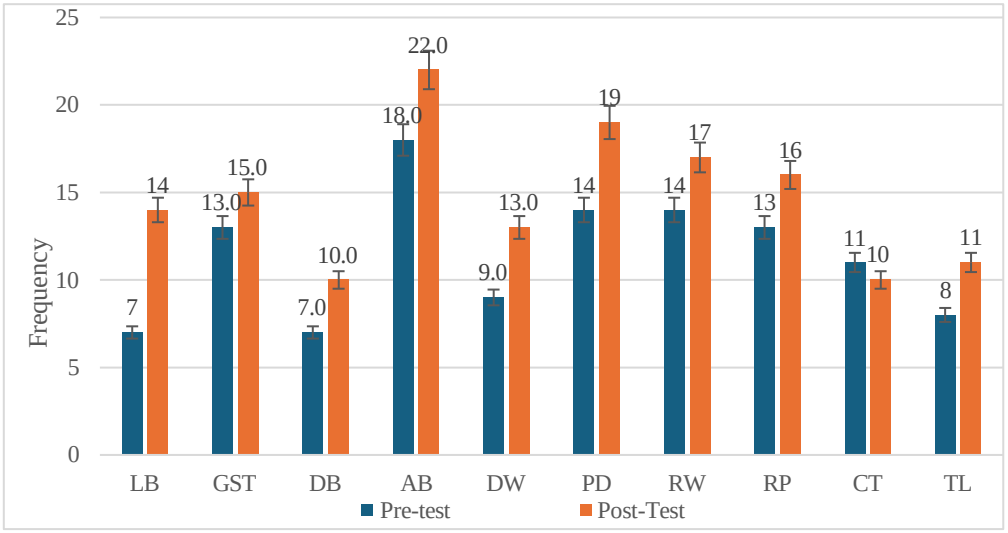
Bar chart represents the difference in pre and posttest of teaching learning strategies



Data in figure 9., represents the mean difference in the pre and post test of teaching learning strategies. Standard error bars represent the variability in the data. The error bars in this bar chart represent that the data is less variable which mean higher the reliability. There is increase in the positive responses of almost every teaching learning strategy except use of critical thinking for problem solving. Participants were more confident about this in pretest as compared to the post test, which could be due to their limited understanding regarding the application of critical thinking in classrooms. After training, their understanding about the complexities related to the use if critical thinking enhanced which resulted in decrease of confidence in this strategy.

Figure 10

Bar chart represents the mean difference in pre and posttest of teaching learning strategies



4.5.2 *Collaborative and Experiential Learning*

Participants mentioned that the education system should be more experiment based rather than theory based.

"hmra content experiment pa base hna chahia theory pa ni practical hna chahia ha" (ID 5).

Teachers emphasised the need for practical learning for the betterment of society.

"agar hum rata system se thora practical ki taraf aajaiyen gaye na bachy bhi easy hojaiyen gaye teachers bhi burdenise nahi hoon gaye aur hamre society bhi achi taraf jaiye gi" (ID 7).

Teachers shared their classroom practices that are helpful for skill development in students:

lesson mein hum is tarah ki cheezein rakhy collaborative work rakhy hum log jo hy experimental work rakhy mukhtalif field mein jb jaiengy wo log to practically kareingy tou hum wahan py experimental work rkh skty hy phir teamwork rkhy phir

hum unko grouping mein kaam kr wae phir activity-based hum un sy kuch projects bnwae. (ID 3)

"sab se phely activity based hai" (ID 6).

4.5.3 *Integration of Technology and Resources*

Participants shared the best practices to integrate careers education into classrooms. Using technology is one of the strategies to implement careers education.

"ab teaching learning mein a-v aids zayada hoti hain zayda cheezien aajati hain" (ID 4).

"classroom mein yehi kar sakty hain ke unko technology se introduce karwien ke hamare jo ajkal ki technologies hain kia hain aur kis tarha se help kar rahi hain" (ID 6).

Participants acknowledged the need for technology usage in classrooms as the students today are more oriented towards technology.

"Technology oriented bache hn ajkl k to inki na ye cheezen achi lgti hn. Wahan pe kaam kia jaye" (ID 10).

"ap in se choti si documentary bhi bnwa skte hn" (ID 10).

4.6 Capacity Building Needs

Findings revealed the significant gap in teachers' knowledge and understanding of careers education and the recognition towards the need of continuous professional development (See figure 10).

4.6.1 *Need for Continuous Training and Development*

Teachers consistently emphasized the need for comprehensive professional development for effective implementation of careers education at middle grade level. As one participant stated:

"Pehly teacher ko in cheezon ka pata hoga toh aagy transfer kar sakay ga" (ID 11).

Figure 11

Figure shows sixth major theme i.e. capacity building needs and its subthemes

Teachers acknowledged their limited knowledge and confidence in careers education and expressed a strong desire for in-depth training to fully comprehend the concept before implementing it with students.

"Pehly tu main smjhta hun k jo hamary teachers hain they should be provided this sort of education unko ye education bhot hi taky unhy khud pata ho ka careers education kiya hai" (ID 12).

"I think sab se main step teacher training hai" (INT 6).

Teachers expressed awareness of their limited knowledge and understanding of CE and emphasized the need for professional development to effectively deliver CE to students. As another participant added:

"As a teacher mujhy awareness hogi tu ma bacho ko dun gi aur tb hi main usko subject say a practical se link kr skti hoon" (ID 8).

Participants insited on skill enhancement of teachers first, so they can feel confident about transferring knowledge to their students.

"teacher ki skills ko ap enhance kren" (INT 6).

4.6.2 Effective Training Methods and Resources

Participants stressed the importance of practical training, emphasizing the need for hands-on activities and real-world examples. Access to relevant resources was also identified as crucial. Teachers suggested variety of training methods that would be effective for them including refresher courses, industry visits, guest lectures, short courses, online courses etc. Thay also highlighted the importance of quality trainers and experts. As the verbatim stated:

"ap kisi industry ka visit karwain unko batein mukhtalif professions ke baary mein" (ID 11).

"Training ka lia bht acha trainers hona chahia hn" (ID 5).

Teachers recommended a range of training options that would be helpful for them, such as refresher courses, industry visits, guest lectures, short courses, and online courses:

teachers ky liye short courses karway jay short courses main ye jo module jinka humny zikr kiya hai ye rakhy jay tu teachers ko training provide ki jay dosra ye hai ka mentorship program rakhy ja skty hain us sy hat ky ye hai ka online courses rakhy jay online courses krway jay teacher ko ye vo cheezain hain jis s yap provide kr is tarah jo

professionals hain different areas ka unko hum invite karskty hain unko hum invite karskty hain school main we must inivte them in school. (ID 12)

4.6.3 Challenges and Gaps in Training

Teachers highlighted the lack of specialized CE training, inadequate training opportunities, and the absence of support structures for professional development.

"refresher courses nahi hen hamen concepts he ni he kisi cheez ka" (ID 2).

Ongoing trainings often includes rote memorization rather than practical learning which adds nothing to the learning of teachers.

"training hamre jo hoti bhi hain us trha se book se rata ratayi chezien hamay parhayi jati hain" (ID 6).

A notable dearth of training opportunities exists for teachers in District Poonch, AJK. Participants reported receiving no formal training during their service.

Consequently, their inability to acquire necessary careers education skills hindered their capacity to effectively deliver CE to students.

maine bataya na k hum logo ko careers education k baray mein mtlb k 5 years ho gaye Naukri k meray induction ko 5 saal ho gae is tarah ki koi training nahi mili. hamari training nahi thi ky hum bacho ko bata sky ky yeh agar hum un logo ko parhatay hy ya kr watay hy tou konsi skills unki develop hogi mtlb wo konsay career mein ja skty hy. (ID 3)

"hum ny teachers ko wese train nahi kia" (ID 7).

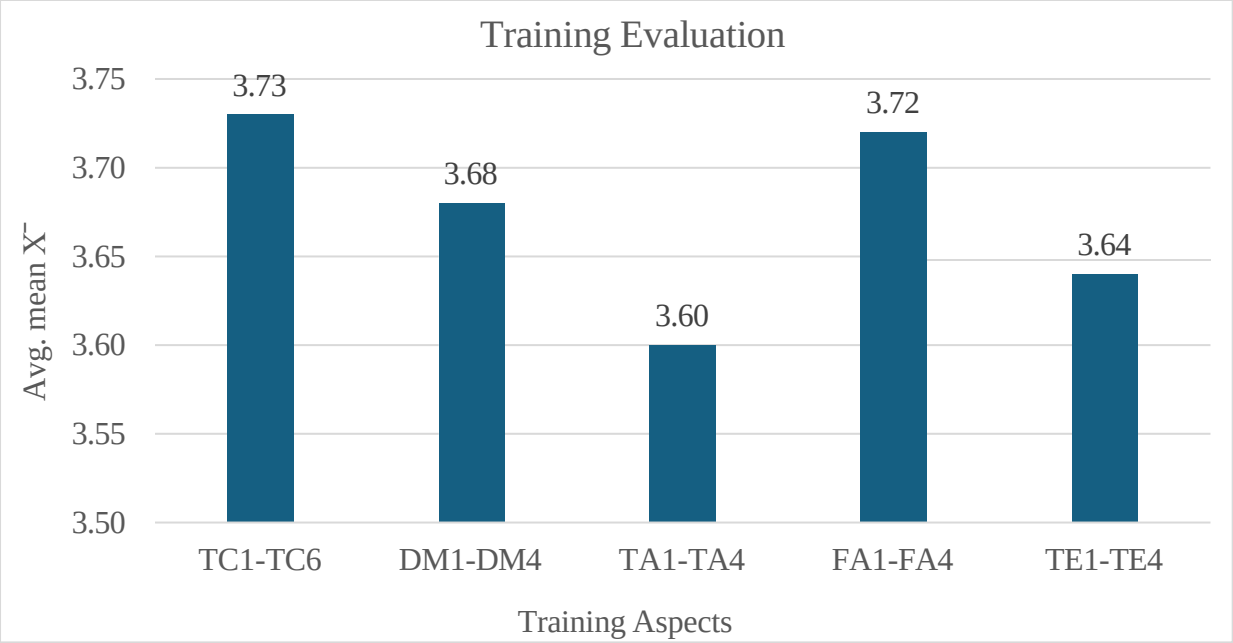
Many teachers demonstrated limited awareness of the diverse range of careers and professions available. While familiar with traditional and societally valued occupations within Azad Kashmir, they lacked knowledge of contemporary and emerging career paths. This knowledge gap significantly impeded their ability to effectively deliver careers education to students.

"*hamare jo teachers hain unko abhi nahi pata mukhtalif professions ke baary mein unko yeh batana boht zaruri hai" (ID 11).*

At the end of this study, training program was evaluated where different aspects of training including Training content, Delivery methods, Training activities, Facilitators and Training environment was tested. Results revealed that participants were highly satisfied with all aspects of training. Training activities revealed the least score as compared to other aspects which is attributed to the limited activities during the training due to time constraints.

Figure 12

Bar chart represents the average mean of the training aspects used to evaluate the training



In summary, the key findings presented in this chapter provide a comprehensive overview of teachers' perceptions, knowledge and their understanding regarding careers education integration at middle grade level. The themes discussed in this chapter provide valuable insight into the needs of middle grade teachers in District Poonch, Azad Kashmir in terms of delivering careers education effectively in classrooms. The findings underscore the need for continuous professional development for teachers for skill enhancement to provide careers education efficiently. Furthermore, the results also highlight the difference in teachers' understandings regarding careers education integration at middle grade level. Moving forward, in next chapter we will discuss how these findings contribute to the broader context of successful integration of careers education at middle grade level.

CHAPTER 05: DISCUSSION

This chapter will discuss the findings of our study in relation to the existing literature. The purpose of this discussion is to relate the findings of our study to a broader context and interpret them in relation to the concept of scaffolding by Vygotsky's sociocultural theory (1978), social networks by Bourdieu (1985), and Lave and Wenger's framework of community of practice (1991). The key findings include teachers' attitude and awareness towards careers education, its implementation at middle grade level, challenges associated with careers education implementation at middle grade level including rigid curriculum, time and resource constraints and the need for continuous professional development for capacity building of teachers to implement careers education effectively.

The concept of scaffolding proposed by Vygotsky, is highly relevant in understanding the findings of this study. Scaffolding refers to the support provided to a youngster or novice that allows them to successfully solve a problem, complete a task, or achieve a goal that would otherwise be beyond their abilities without assistance (Wood et al., 1976). According to Vygotsky (1978), learning occurs initially in a social context through interactions with others, and then it is absorbed at an individual level. Awareness gap among teachers regarding careers education and its integration into classroom practices aligns with the concept of scaffolding, where it states that learners get benefitted from a more knowledgeable person. In our study, the idea of scaffolding (Vygotsky, 1978) was integrated since the development of a training module, where we developed the module for gradual learning and skill enhancement of teachers for careers education integration into their classroom practices. Moreover, the need for continuous professional development can be seen as scaffolding, where teachers require training for their gradual learning, provided by a more knowledgeable person for their skill enhancement to integrate careers education into classroom practices. In our study, implemented training program provided scaffolding, as it revealed significant

difference in teachers' understanding and attitude towards careers education in pre and post test evaluation.

Social capital by Bourdieu (1985), enriches our findings. Social capital theory suggests that the combined tangible or intangible assets that are associated with having a stable network of established relationships characterized by reciprocal familiarity or acknowledgment. The fundamental idea is that a network offers benefits to its members by granting them access to the social resources that are integrated inside the network (Bourdieu, 1985; Florin et al., 2003). For teachers, these networks are their colleagues, fellow schools, professional associations and community in which teachers stay and their interaction may give them access to the resources that might help them in provision of careers education. In our study findings, challenges associated with implementing careers education including limited resources can be understood through the concept of social networks (1985). It suggests that leveraging social networks might help in acquiring the resources that are needed to implement careers education into classrooms. The positive shift in teachers' attitude after training program reveals that social networks play a crucial role in active engagement, access to resources and achieving the objectives.

Teachers' awareness and attitude towards careers education and the challenges associated with implementing careers education aligns with the framework of community of practice. According to Lave and Wenger (1991), learning is better understood as "increasing participation in communities of practice". This concept suggests that creating teachers' communities can better help them in addressing the challenges and providing the possible solution, sharing their perspectives, understandings and the best practices to provide careers education into classrooms. As teachers share common goals, so by promoting collaborative learning and shared resources, it could better equip teachers with the skills and strategies that

would help them in incorporating careers education despite challenges like resource constraints or rigid curriculum.

Findings of this study aligns with the existing literature. The aspect that one of the primary purposes of schools is to facilitate the acquisition of knowledge and skills to equip young individuals for their post-school lives is the finding of our study which is also highlighted by Akos et al. (2011), Morita et al. (2018), Perry (2008). According to Akos et al. (2011), CE refers to educational initiatives within schools that aim to provide students with the necessary skills and knowledge to make informed decisions about their careers, our study findings also highlight the importance of CE provision at school level. Limited awareness of teachers regarding careers education and its integration aligns with Reiss & Mujtaba (2017) findings where they argue that teachers sometimes provide outdated and stereotypical instruction when it comes to careers education which hinders the effective implementation of CE.

Despite that awareness gap, teachers acknowledged the importance of careers education integration at middle grade level. Teachers' positive attitude towards CE is crucial which is consistent with the existing literature, which highlight that the attitudes of instructors have is crucial and influential factor in the successful implementation of educational programs (Lim, 2009; OECD, 2016; Reinke et al., 2011; Renju et al., 2010). Teachers' attitudes have been found to be a critical factor in the effectiveness of inclusion programs in regular classrooms (Chow & Winzer, 1992; Hastings & Oakford, 2003; Hayes & Gunn, 1988; Williams & Algozzine, 1977). Gal et al. (2010) emphasized the significance of teachers' attitudes as a human environmental component that can support the inclusion of children with impairments. The attitudes of elementary school teachers towards career development can significantly influence their conduct in this area and their readiness to effectively integrate careers education programs in classrooms. Maier et al. (2013) emphasized the possible

impact of teachers' mood on classroom practices in the domain of scientific instruction classrooms. The researchers discovered a positive correlation between attitudes towards teaching and both observed instructional methods and adherence to curriculum. Therefore, it seems that being exposed to a field in a good way at an early stage of development has a significant impact, highlighting the importance of career education during school. Our study findings are in harmony with the existing literature which emphasizes on the implementation of careers education to equip students 'with the skills that would help them in future careers and employment. Middle school teachers strongly agreed that the curriculum should equip young individuals for future employment (Akos et al., 2011). They also recognized the importance of incorporating job and career-related topics within the core curriculum as part of career education initiatives.

The findings of our study, in which educators emphasised the importance of enhancing skills through careers education for future employment, are consistent with prior research that highlights the persistent issue of students lacking the necessary skills and knowledge for their future careers, both on a global and national scale. Students are deficient in information and inadequately equipped for their professions (Mupinga & Canigilia, 2019; Ridge et al., 2020). The students' inadequate understanding of career preparedness highlights the difference between the curriculum offered in schools and their chosen academic and professional paths in higher education and future careers (Mupinga & Canigilia, 2019; Kutnick et al., 2020). Turner et al. (2022) suggest that it is crucial to implement careers education successfully, as supported by the literature. They stress the importance of having a well defined and thorough plan that corresponds with an individual's personal congruence of career goals to successfully integrate Careers Education (CE).

The findings underscored the importance of parents in supplying career-related information to their children. Reflecting on the significance, findings indicated the necessity

for careers education for parents, given their influence on their children's professional choices. Previous literature indicates that educators have identified insufficient parental support as a considerable impediment, alongside challenges related to the varied needs and abilities of students (Hussain & Hameed, 2014), corroborating our findings on the impact of parental involvement on students' career choices. The insufficient comprehension of parents regarding many career alternatives in today's society may hinder students from pursuing modern paths instead of traditional careers. The increase in opposition and insufficient comprehension imposes further pressure on educators, educational institutions, and districts (Ali & Abid, 2021). Careers education just for pupils may be ineffective if parents lack awareness of contemporary employment options and are not supplied with relevant career information. To address an unproductive parental and community environment, educational institutions and districts should prioritize the development of new parental engagement programs, parental support, and enhanced communication of standards. Clear communication about the academic standards that students must meet in each grade reduces uncertainty among parents. Likewise, offering extensive career education for students helps mitigate any ambiguity (C-SAIL, 2019).

The challenges identified in our study such as rigid curriculum and resource constraints are in line with the previous studies which indicate that the education system in Pakistan confronts numerous obstacles, such as limited resources, insufficient teacher preparation, antiquated pedagogical approaches, inadequate career guidance, and unequal educational access. Rural and distant regions experience restricted access to quality education, and gender gaps endure, with females facing social, cultural, and economic barriers to school (ASER, 2019; ASER, 2021).

The findings regarding the inflexible curriculum align with the findings of Iqbal and Dool (2023), who assert that Pakistan's education system prioritises exam preparation and

syllabus completion over skill development. This prevents teachers from going beyond mere memorisation, which is further supported by our own findings. Teachers reported that rote learning is prevalent in schools, and they feel powerless due to management policies that prioritise completing the syllabus.

The teaching and learning strategies offered by instructors in our study are in line with global best practices that effectively incorporate career education into classrooms. According to the literature, a crucial teaching method highlighted in school reform attempts is to improve the pertinence of the curriculum. This facilitates the establishment of a link between the academic discipline that students are studying and either their immediate environment or their ambitions for the future (Orthner, 2007). The study findings emphasised that collaborative learning, experiential learning, and the use of technology and resources are effective strategies for incorporating CE. These strategies align with the core strategy of the 21st century, which combines collabrative and self-directed learning, facilitated by purposeful utilisation of technology and innovative application of existing knowledge to solve real-world issues (Dede, 2010; Howland et al., 2012). The findings underscore the importance of employing a diverse range of teaching and learning tactics. This aligns with previous research indicating that utilising a variety of strategies can assist students in addressing real-world difficulties and developing the abilities necessary for the 21st century (Kuo et al., 2019).

The findings of this study indicate that hands-on activities, role plays, field trips, and experiential learning were effective methods for preparing students and integrating career education (CE) into classroom practices. These findings align with the current literature, indicating that meticulously planned and executed activities can augment student motivation, foster higher-order thinking and integrated comprehension, and better prepare them for future career progression (Fan & Yu, 2017) In this study, teachers suggested to incorporate educational strategies that cater students according to their individual needs. Teachers

acknowledged individual differences and posited for inclusive education which contributes to the previous studies highlighting that the inclusive education seeks to guarantee that learners with varying preferences and needs, have equitable access to learning resources, services, and experiences in a broad sense. This can result in more innovation and production, ultimately leading to sustained economic viability. Various educational design frameworks, such as Differentiated Instruction and Universal Design for Learning, have been suggested to promote inclusive education (Florian & Linklater, 2010; Hanushek & Woessmann, 2010; Meyer et al., 2014; CAST, 2014; Rose & Meyer, 2002; Srivastava et al., 2015; Tomlinson & McTighe, 2006 UNESCO, 2005).

The findings indicated that teachers lack confidence in incorporating teaching and learning methodologies into their classroom practices to effectively implement careers education. This issue might be addressed by providing them with training on how to integrate careers education. Previous research consistently demonstrates that teachers with high levels of confidence and self-efficacy are better equipped to successfully integrate careers education. These educators exhibit greater receptiveness to novel concepts and demonstrate a heightened willingness to employ innovative techniques to address the needs of their students, as highlighted by studies conducted by Tschannen-Moran & Hoyt (2001) and Weisel & Dror (2006). Teachers that possess a higher level of self-efficacy are more likely to include a wider range of possibilities into their classroom, since they have a heightened sense of competence (Habayib & Cinamon, 2023).

The necessity for capacity building, as noted in our study, aligns with the literature's emphasis on the ongoing professional development of teachers to ensure the successful implementation of careers education. Insufficient teacher professional development has been identified as a major factor contributing to the ineffective integration of careers education at the middle grade level. This finding supports existing literature that emphasises the main

obstacles to addressing this challenge in careers education implementation are the lack of ongoing professional development for teachers and principals. According to literature, teachers have the responsibility of aligning their instruction with standards and addressing the learning deficiencies of students who have significant gaps in their knowledge. This can be achieved using appropriate teaching strategies, which can be facilitated by continuous training (Center on Standards, Alignment, Instruction, and Learning [C-SAIL], 2019). According to Albion et al. (2015) and Voogt et al. (2015), providing continuous professional development for teachers on incorporating career education is challenging because of the large number of teachers that need to be reached and the need for frequent updates to keep up with advancements in career education. This aligns with our findings that there are gaps in teachers' training, as many teachers have never attended any training sessions during their tenure and the current training practices are repetitive, targeting the same teachers each time. Continuous professional development, as described in the literature, is essential for enhancing the calibre of instruction in educational institution. The competence of a well-trained educator depends on the quality of the curriculum they have been exposed to and the way it is implemented. Slater et al. (2012) have found that there is variation among teachers in their capacity to enhance students' academic performance on examinations, and this variation is directly linked to the calibre of their training. This has significantly fostered the prevalent notion that a "competent" educator, equipped with requisite skills acquired via teacher training programs, can enhance students' academic capabilities and performance metrics (Rockoff, 2004). The quality of teaching is impacted by multiple elements, one of which is the teacher's professional competence. This encompasses their expertise in the specific field, their understanding of effective teaching strategies, their familiarity with different educational approaches, their experience in teaching, and their official certification status (Châu, 1996; Grossman, 1995; Shulman, 1986; Westera, 2001). Hammond's (1999) analysis reveals a

constant and significant positive correlation between the ratio of well-trained instructors and student performance on the National Assessment of Educational Progress (NAEP) reading and mathematics assessments. This aligns with our own research, which indicates that a teacher's effectiveness is dependent on their performance in the classroom, which, in turn, is influenced by their level of competence. The significance of teachers' involvement in incorporating careers education is also shown by the findings of Miguel and Barsaga (1997), who contend that the instructor plays a crucial role in shaping student success (Boudersa, 2016).

Conclusion

The purpose of this study was to explore the perspectives of middle grade teachers regarding the implementation of careers education in District Poonch, Azad Kashmir. Moreover, this research aimed to evaluate the impact of a training program designed and developed for enhancing teachers' capacity for careers education integration and to identify the difference in teachers' understanding for integrating careers education at the middle grade level. Through a comprehensive study of both qualitative and quantitative data, analysis revealed that teachers often associate education with character building, skill development and social responsibility. Yet, it can be inferred that there exists a lack of understanding among instructors regarding careers education and its successful incorporation at the middle grade level. Despite the limited awareness, they recognise the significance of providing careers education at the middle grade level, and they have a positive attitude towards integrating it. The analysis revealed the importance of community and parental involvement in disseminating career related information to students that can help them in making career choices. Participants acknowledged their role acknowledging their responsibility not just as a teacher but as a counsellor and career educator whose job is to build students' character as well as provide opportunity awareness and develop skills that are necessary to succeed in the job market. The study underscored the importance of teaching learning strategies. Differentiated learning has also been emphasised meeting individual needs for enhanced learning. Collaborative and experiential learning is crucial, with teachers recognizing the value of practical, real-world applications in fostering student engagement and to gain the maximum understanding of careers. Nevertheless, research suggests that there are other obstacles that impede the successful execution of careers education, such as time constraints, budget limitations, and inflexible curriculum. The education system in Azad Kashmir continues to prioritise rote memorisation, hindering teachers from prioritising the

development of pupils' skills. Instead, the emphasis remains on completing the syllabus. To overcome these challenges, teachers need ongoing professional development that offers them a comprehensive understanding of careers education, its strategies, and hands-on learning experience to equip them with the necessary skills to effectively integrate careers education into their classrooms. The effectiveness of training program was evident in the post training assessment. Prior to the training, participants were more focused on the resource constraints and traditional educational roles, such as academic performance. However, post training, a broader understanding emerged, with teachers emphasising development of skills in students relevant to the job market using the resources available. Participants demonstrated a clear understanding of careers education and its integration into classroom practices. There was a significant difference in teachers' understanding of careers education prior to the training and post training. Furthermore, there was an improvement in confidence of teachers regarding teaching learning strategies for careers education integration. The findings of this study go beyond the classroom and connect to the broader educational outcomes, such as preparing students to be a responsible and productive member of society and equipping them with the skills that help them succeed in the work force. Teachers recognised careers education as a core need for students. To integrate careers education efficiently into classrooms, there is a need for continuous professional development of teachers to gain comprehensive understanding of careers education, so teachers can effectively incorporate careers education into classrooms and equip students with the necessary skills required for careers.

Implications of the Study

The findings of this study have substantial implications for the integration of careers education at the middle grade level. The implications go to professionals in the field of careers education, as well as those in positions of leadership in schools and education, and the department responsible for teacher education and training. Careers practitioners are advised

to incorporate careers education into classroom methods. To achieve gradual learning and improve skills, it is advisable to work together with instructors and career educators to effectively exchange practices and introduce innovative methods in the implementation of careers education. To bridge the knowledge gap among teachers and foster a positive attitude towards implementing careers education, it is recommended that the teacher education and training department arrange ongoing professional development programs. These programs will enhance the teachers' abilities in this field, ultimately equipping our students with the necessary skills for their future careers. The obstacles to implementing careers education, such as inflexible curriculum and limited resources, indicate the need for systemic reform. This entails collaboration between school and education leaders to provide the necessary human and capital resources, as well as fostering teacher collaboration and professional development initiatives.

Limitations and Recommendations

While this study provides valuable insights into the integration of careers education, nevertheless, a few limitations have been acknowledged. Initially, a sample consisting mostly of females was collected, resulting in a gender imbalance. This may have led to variations in perspectives between males and females within the sample. It is possible that male teachers might have different views or challenges related to careers education integration. Furthermore, in the quantitative phase of the research, it is possible that certain participants provided socially desired responses. This issue was addressed by employing method triangulation in the quantitative pre-post-tests. Additionally, the training program was conducted over a short period of three days. While the program had a noticeable impact on teachers understanding, however the limited duration may not have been sufficient for deeper understanding of careers education and may be inadequate for sustained change in teaching practices. Another limitation was the inability to conduct post training classroom observations

due to time constraints. Classroom observations would have allowed for deeper assessment of how teachers applied their newfound knowledge in the real-world settings and how effective the training was in practice. Without this element, long term impact of training remains unclear.

Based on these limitations, several recommendations can be made. Firstly, future studies should aim for a more balanced gender sample to ensure the adequate representation of both male and female perceptions and experiences. Moreover, longitudinal studies with frequent observations would provide a clearer picture of how training programs impact teachers' practices in classrooms. Observing teachers post training would enable researchers to assess the effectiveness of careers education over time. It is also recommended that the teacher education and training department organise ongoing professional development programs specifically focused on careers education and its integration. Offering multiple training sessions across the academic year, may equip teachers with necessary skills and knowledge that is needed for careers education integration into classrooms. This can help teachers enhance their teaching strategies. By creating opportunities for teachers to refine their teaching approaches, these programs could significantly enhance the effectiveness of careers education in schools.

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APPENDINCES

Appendix 01

S³H

SCHOOL OF SOCIAL SCIENCES & HUMANITIES (S3H)
NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY (NUST)
Ethical approval Letter Ref: 0839/Ethic/07/S3H/16/DBS

Ethics Clearance Certificate

Project Title: Enhancing in- Service Techers' Capacity for Careers Education Integration at Middle Grade Level

Investigators: Zahra Shafqat

Co-Investigator(s): ----------

Contact Details of Investigators: 0332-8916224

Discipline: Dept of Behavioural Sciences

Project Location: NUST, H-12 Campus, Islamabad

Project Duration: 2 Years

It meets the requirements and ethical guidelines set out by School of Social Sciences and Humanities (S3H) Ethics Committee. There is no need to take separate informed human participation consent. This project is **Approved** subject to the following conditions:

It is the Investigator's responsibility to ensure that all researchers associated with this project are aware of the conditions of approval and which documents have been approved.

The investigator is required to notify the Research Ethics Committee, via amendment or progress report, of:

- Any significant change to the project and the reason for that change, including an indication of ethical implications (if any);
- Serious adverse effects on participants and the action taken to address those effects;
- Any other unforeseen events or unexpected developments that merit notification;
- The inability of the investigator to continue in that role, or any other change in research personnel involved in the project;
- A delay of more than 6 months in the commencement of the project; and,
- Termination or closure of the project.

Additionally, the Principal Researcher is required to submit

- A Progress Report on the anniversary of approval and on completion of the project.

The Ethics Committee may conduct an audit at any time.

Dr. Ume Laila
Chair of School Ethics Committee
Associate Professor
School of Social Sciences and Humanities (S3H)
National University of Sciences and Technology
Pakistan
Date: May 10, 2024

Appendix 02

SCHOOL OF SOCIAL SCIENCES & HUMANITIES (S3H)
NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY (NUST)

S³H

Ms. Fouzia Sadiq,
Director,
Directorate of Education Extension,
Azad Kashmir.

Subject: **Permission to Conduct 3 Days Teachers Training on Careers Education Integration**

Dear Ms. Fouzia Sadiq,

The Department of Behavioural Sciences at NUST, Islamabad, strives for quality research and inclusivity in education. Our graduates conduct top-tier research in various domains of education including Careers Education and In-service Teachers' Training.

Currently, one of our MS Career Counseling and Education student, Ms. Zahra Shafqat, is undergoing the research on, 'Enhancing In-service Teachers' Capacity for Careers Education Integration at Middle Grade Level'. Her research includes conducting a three-day training with the middle grade level teachers of English and Science subjects. This training is an essential component of ongoing research and aims to enhance the readiness and perception of middle grade (6th till 8th) teachers regarding careers education integration.

The proposed training is planned to be conducted before 18th of August 2024. We are expecting participation from at least 20 teachers from District Poonch, specifically drawn from middle grade Science and English subject teachers. The University Ethical Clearance Letter to conduct this research and the tentative training plan are appended for your review.

We believe this initiative is crucial for the professional development of the teachers and will significantly impact on students' career readiness in District Poonch, Azad Kashmir.

It is a privilege for us to share this opportunity with you, and we appreciate your consideration of our request. Should you require any further information or have any questions, please feel free to contact the researcher at 0332-8916224 Email: zahra.cce22s3h@student.nust.edu.pk or the supervisor at 0334-2349283 Email: nadiajahan@s3h.nust.edu.pk.

Thank you for your time and support.

Prof. Dr. Sahar Nadeem Hamid

Head of Department, Behavioral Sciences

Sector H-12, Islamabad, Pakistan. Tele: +92-51-90853503, +92-51-90853501,E-mail: s3h@nust.edu.pk

Appendix 03

Consent Form

Name of project: Enhancing In-Service Teachers' Capacity for Careers Education Integration at Middle Grade Level

Researcher's details: Zahra Shafqat | zahra.cce22s3h@student.nust.edu.pk

Your contribution in this project is valuable. After reading the project information sheet, please review the information below and tick the box if you agree:

S No.	Considerations	Yes	No
1	I have been provided with the project information sheet.		
2	I have read the information sheet; the information is easy to understand		
3	I understand the nature of the research and my role in it.		
4	I am ready to participate in this research.		
5	My participation is voluntary, I have not been forced in any way to participate.		
6	I understand I am free to withdraw from participating in the project at any time, without giving any reason.		
7	I understand that, with my permission, the interview will be tape recorded.		
8	I understand that the researcher will keep all my personal information confidential		
9	I understand that our conversation will be transcribed and will be used in research articles and later in academic journals.		

I agree the information gained from interview can be published. (please circle)

Yes

No, I wish this interview to be 'off-the-record'

Do you agree responses collectively reported in the publication?

_____

Do you give permission for the interview to be tape recorded? (please circle)

Yes

No

Participant's signature with date: _____

Appendix 04

Profile Sheet for Middle School Teachers

Directions: Please read each item carefully and complete all the items listed below. You have to select at least one response against each item.

1. Gender

   ☐ Male ☐ Female

2. Age

   ☐ 22 - 27 ☐ 28 - 33 ☐ 34 - 39 ☐ 40 - 45 ☐ 46 and above

3. Qualification

   ☐ Intermediate/A Level

   ☐ BA/BSc (2years degree)

   ☐ MA/MSc (2years degree)

   ☐ Bachelors Hons (4years degree)

   ☐ MPhil

4. What classes/grades do you teach? (Check all that apply)

   ☐ 6-8 ☐ 7-8 ☐ 8 ☐ Other, please specify_____

5. What subject(s) do you teach? (Check all that apply)

   ☐ Maths ☐ Science ☐ English ☐ Geography ☐ History

   ☐ Islamiyat ☐ Urdu ☐ Social Studies ☐ Computer Studies

6. What is the average class strength that you teach?

   ☐ 20 - 25 ☐ 25 - 30 ☐ 30 - 35 ☐ 35 – 40 ☐ 40 above

7. How many years of teaching experience do you have?

   ☐ 3-5 ☐ 6-10 ☐ 11-15

   ☐ 16-20 ☐ 21 or more years

. Have you attended any training on careers education?

   ☐ Yes ☐ No

   a) If yes, please state your learning experience below:

Appendix 05

Guiding Questions

CQ: What are the perceptions of middle grade teachers regarding the provision of careers education?

Sub-Questions

1. In your opinion how would you explain the purpose of education?
2. What is your opinion about providing work-related education to middle grade students?
    a) Would you please share your understanding of providing careers education during classroom teaching?
    b) What is your opinion on the role of teacher in providing CE in classrooms?
3. In your opinion, what steps should be taken for providing CE at middle level?
4. What teaching and learning strategies do you think can be used to provide career related information during classroom lessons?
5. How would you assess the learning outcomes of careers education in your classrooms?

Appendix 06

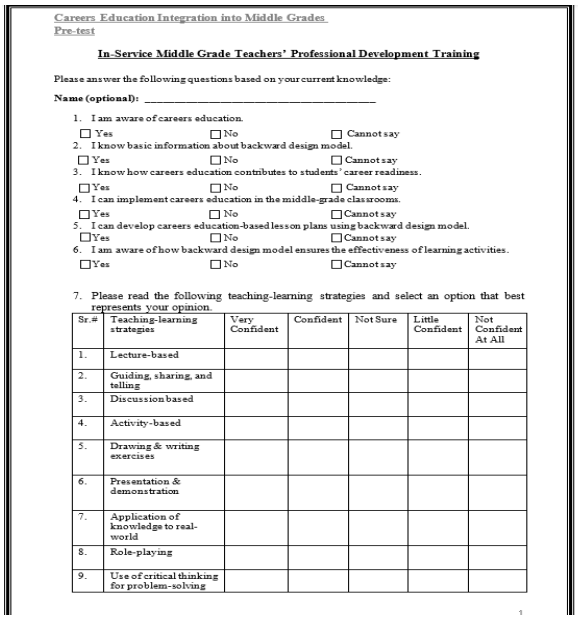
Careers Education Integration: A Capacity Building Training for In-Service Middle Grade Teachers

3 Days (August) 2024

Following is the tentative 3 Days Teachers' Training plan:

3 Days Training (09.00am – 12.00pm)	
Day 1	
Session	**Activity**
Session A 9:00-9:30 am	➢ *Welcome and Keynote* ➢ *Pre-test*
Session B 9:30-10:30 am	➢ *Introduction to the Careers Education* o Concept, Importance and Benefits o International and National Practices
10:30-11:00 am	***Tea Break***
Session C 11:00-12:00 pm	➢ *Group Work Activity*
Day 2	
Session A 9:00-10:30 am	➢ *Integration of Careers Education into Curriculum* o *Textbook Reviews* o *Introduction to Backward Design Model for Careers Education lesson plans*
10.30 –11:00 am	***Tea Break***
Session B 11:00- 12:00 pm	➢ *Group Work Activity* o *Development of English and Science Lesson Plans*
Day 3	
Session A 9:00-10:00 am	➢ *Group Work Activity -1* o *Review and Comparison of Careers Education based developed Lesson Plans of English and Science*
Session B 10:00-11:00 am	➢ *Group Work Activity -2* o *Presentations on the Group Findings.*
11.00 –11:30 am	***Tea break***
Session C 11:30-12:00 pm	➢ *Post-test* ➢ *Training-Workshop Evaluation* ➢ *Closing Remarks*

Appendix 06



Careers Education Integration into Middle Grades
Pre-test

In-Service Middle Grade Teachers' Professional Development Training

Please answer the following questions based on your current knowledge:

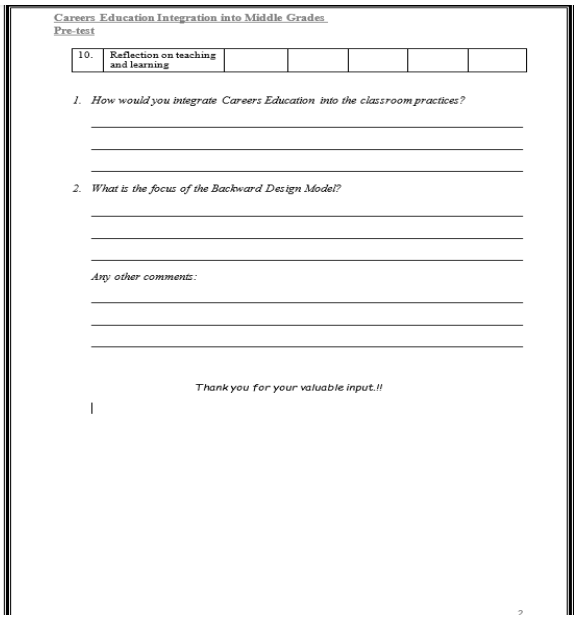
Name (optional): _____

1. I am aware of careers education.
☐ Yes ☐ No ☐ Cannot say
2. I know basic information about backward design model.
☐ Yes ☐ No ☐ Cannot say
3. I know how careers education contributes to students' career readiness.
☐ Yes ☐ No ☐ Cannot say
4. I can implement careers education in the middle-grade classrooms.
☐ Yes ☐ No ☐ Cannot say
5. I can develop careers education-based lesson plans using backward design model.
☐ Yes ☐ No ☐ Cannot say
6. I am aware of how backward design model ensures the effectiveness of learning activities.
☐ Yes ☐ No ☐ Cannot say

7. Please read the following teaching-learning strategies and select an option that best represents your opinion.

Sr.#	Teaching-learning strategies	Very Confident	Confident	Not Sure	Little Confident	Not Confident At All
1.	Lecture-based					
2.	Guiding, sharing, and telling					
3.	Discussion based					
4.	Activity-based					
5.	Drawing & writing exercises					
6.	Presentation & demonstration					
7.	Application of knowledge to real-world					
8.	Role-playing					
9.	Use of critical thinking for problem-solving					

1



Careers Education Integration into Middle Grades
Pre-test

10.	Reflection on teaching and learning					

1. How would you integrate Careers Education into the classroom practices?

_____
_____
_____

2. What is the focus of the Backward Design Model?

_____
_____
_____

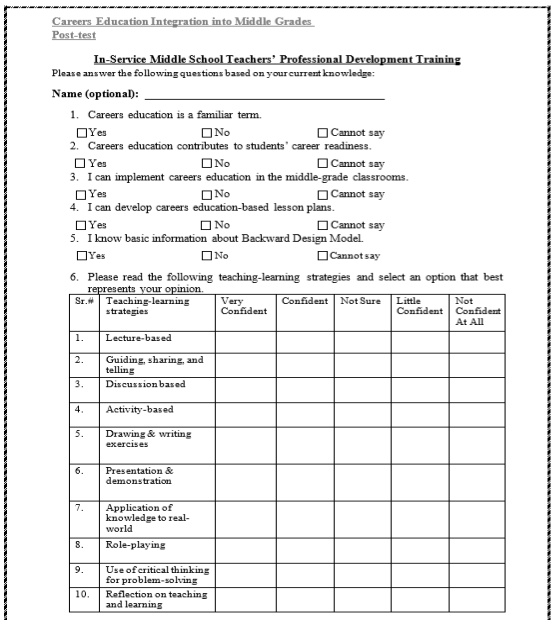
Any other comments:

_____
_____
_____

Thank you for your valuable input.!!

2

Appendix 08



Careers Education Integration into Middle Grades
Post-test

In-Service Middle School Teachers' Professional Development Training

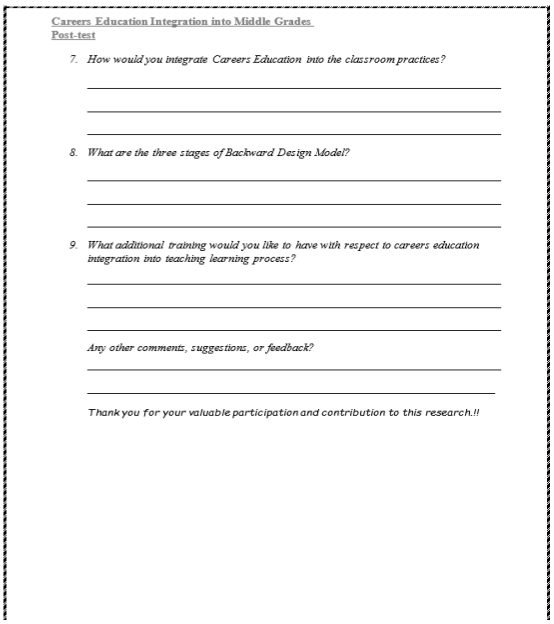
Please answer the following questions based on your current knowledge:

Name (optional): _____

1. Careers education is a familiar term.
☐ Yes ☐ No ☐ Cannot say
2. Careers education contributes to students' career readiness.
☐ Yes ☐ No ☐ Cannot say
3. I can implement careers education in the middle-grade classrooms.
☐ Yes ☐ No ☐ Cannot say
4. I can develop careers education-based lesson plans.
☐ Yes ☐ No ☐ Cannot say
5. I know basic information about Backward Design Model.
☐ Yes ☐ No ☐ Cannot say

6. Please read the following teaching-learning strategies and select an option that best represents your opinion.

Sr.#	Teaching-learning strategies	Very Confident	Confident	Not Sure	Little Confident	Not Confident At All
1.	Lecture-based					
2.	Guiding, sharing, and telling					
3.	Discussion based					
4.	Activity-based					
5.	Drawing & writing exercises					
6.	Presentation & demonstration					
7.	Application of knowledge to real-world					
8.	Role-playing					
9.	Use of critical thinking for problem-solving					
10.	Reflection on teaching and learning					



Careers Education Integration into Middle Grades
Post-test

7. How would you integrate Careers Education into the classroom practices?

_____
_____
_____

8. What are the three stages of Backward Design Model?

_____
_____
_____

9. What additional training would you like to have with respect to careers education integration into teaching learning process?

_____
_____
_____

Any other comments, suggestions, or feedback?

_____
_____

Thank you for your valuable participation and contribution to this research.!!

Appendix 06

TRAINING EVALUATION FORM

In-Service Middle School Teachers' Professional Development Training

Please respond to the following questions by selecting the option that best reflects your answer.

1.	Training Content & Structure	Strongly Agree	Agree	Disagree	Strongly Disagree
1.1	The learning outcomes were clearly stated.				
1.2	I understand the content of this training session.				
1.3	The sequence was easy to follow.				
1.4	Sufficient time was allowed for each topic.				
1.5	The content has prepared me well for CE lesson planning.				
1.6	The training had a good mix of theory and practical.				
Any suggestion/feedback for improvement:					

2.	Delivery Methods	Strongly Agree	Agree	Disagree	Strongly Disagree
2.1	The electronic media used in the presentations assisted to better my learning and understanding.				
2.2	The delivery methods were suitable for the content of this training.				
2.3	The delivery methods assisted my learning and understanding.				
2.4	The method used by the instructors made the content clear and easy to understand.				
Specify the session(s) that needs improvement:					

3.	Training Activities	Strongly Agree	Agree	Disagree	Strongly Disagree
3.1	The group activities encouraged my participation.				
3.2	The activities increased my learning.				
3.3	There were sufficient activities in the session.				
3.4	The method of assessment was a fair test of my skills and knowledge.				

4.	Instructor/Facilitator	Strongly Agree	Agree	Disagree	Strongly Disagree
4.1	The instructors' enthusiasm about the subject kept my interest during the course.				
4.2	The instructors presented the content clearly and was easy to understand.				
4.3	The instructors effectively used the training materials to assist my learning.				
4.4	The instructors identified real-world examples that assisted my learning.				
Any other comments:					

5.	Training Environment and Administration	Strongly Agree	Agree	Disagree	Strongly Disagree
5.1	The venue provided a good learning environment.				
5.2	The catering arrangements were sufficient and of a good standard.				
5.3	The training providers had a range of services to support learners.				
5.4	The training staff respected my background and needs.				

Would you recommend such ongoing trainings for the in-service middle school teachers? □ Yes □ No

Your feedback is important to us. Please let us know how we may further improve our trainings.