

EFFECTIVENESS AND CHALLENGES OF NON-FORMAL EDUCATION PROGRAMS IN PUNJAB



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AUTHOR'S DECLARATION

I, Tahira Rafiq, Reg. No. 161-FSS/PHDEDU/F19 as a student of PhD in Education at Department of Teacher Education, Faculty of Education, International Islamic University, Islamabad hereby declare that the thesis titled “Effectiveness and Challenges of Non-Formal Education Programs in Punjab” is submitted for the partial fulfilment for PhD in Education is my original work, except where I have indicated my indebtedness to other sources. I also hereby certify that this thesis has not been submitted in substance for any other degree elsewhere nor it is being submitted concurrently in candidature for any other degree.

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The thesis titled "Effectiveness and Challenges of Non-Formal Education Programs in Punjab" submitted by Tahira Rafiq, Reg. No: 161-FSS/PHDEDU/F19 is partial fulfillment for the requirement of Doctor of Philosophy in Education has been completed under my guidance and supervision. I am satisfied with the quality of student's research work and allow her to submit her thesis for further process as per IIUI rules and regulations.



Prof. Dr. Samina Malik

DEDICATION

To Allah Almighty and His beloved Hazrat

(ﷺ)

To all my respected teachers

My parents

**You planted in me a seed that has grown to produce this piece of
work,**

**My husband Dr. Malik Mureed Hussain for being there all the time
with me**

Always remember, you can never achieve if you have never dreamt.

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ABSTRACT

This mixed-methods study examined the effectiveness and challenges of Non-Formal Education (NFE) programs in five districts of South Punjab, Pakistan. The objectives of this study were to; examine the effectiveness of Non-Formal Education programs in streamlining the marginalized students and scaling up functional literacy level in Punjab, explore the role of Non-Formal Education Programs in developing technical and vocational skills among students, analyze the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab, find out the relationship between achievement levels of students of Non-Formal Education Schools for the subjects; English, Mathematics and Science, compare the achievement level of students for the subjects English, Mathematics and Science regarding gender, district and year, find out the relationship between “streamlining and marginalizing” and “scaling up functional literacy”. Mixed methods approach following concurrent triangulation design was used. The population of the study consisted of 2,315 teachers, 77,424 enrolled students, 64 social mobilizers, and five District Education Officers (DEOs) of Multan, Muzaffargarh, D.G Khan, Rahim Yar Khan and Rajanpur. A sample of 116 teachers, 774 students, 64 social mobilizers taken through proportionate sampling and DEOs were taken through purposive sampling techniques. Quantitative data were collected through self-developed questionnaires while semi-structured interviews were taken for qualitative data. Student achievements data were obtained from five years of Punjab Education Commission (PEC) exam results for 5th grade students in English, Mathematics, and Science. Quantitative data were analyzed using descriptive statistics (means, frequencies) and inferential statistics (Pearson correlation, ANOVA). Qualitative data were analyzed thematically to identify challenges and perceptions related to NFE program implementation. Findings indicated that NFE programs significantly contributed to integrating marginalized children and improving literacy rates in the selected districts. Student achievement levels in core subjects were satisfactory, demonstrating program effectiveness. However, challenges in school establishment, student enrolment, inadequate resources, and teacher training deficits were identified. The interviews with social mobilizers, teachers and DEOs highlighted the need for better coordination, improved monitoring and evaluation and increased funding to address these challenges. The study concludes that while the NFE programs have made notable contributions, there is a need for a more comprehensive and sustained approach to ensure their long-term effectiveness and impact.

Keywords: *Effectiveness, Challenges, Non-Formal Basic Education*

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LIST OF ABBREVIATIONS AND ACRONYMS

AIOU	Allama Iqbal Open University
BECS	Basic Education Community Schools
D.G Khan	Dera Ghazi Khan
DEO	District Education Officer
ECCE	Early Childhood Care and Education
EFA	Education For All
ESR	Education Sector Reforms
GDP	Gross Domestic Product
HDI	Human Development Index
JICA	Japan International Cooperation Agency
L&NFBE	Literacy & Non-Formal Basic Education
NCHD	National Commission for Human Development
NFBE	Non-Formal Basic Education
NFE	Non-Formal Education
NFES	Non-Formal Education Schools
NGOs	Non-Government Organizations
NPA	National Action Plan
OOSC	Out of School Children
PEC	Punjab Education Commission
PNFEP	Punjab Non-Formal Education Project
SAP	Social Action Program
SLOs	Standards Learning Objectives
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund

CHAPTER 1

INTRODUCTION

The concept of Non-Formal Education (NFE) has been an active policy consideration of many nations for about three decades. It has raised awareness on learning, education and training that occurs outside formal schools and other institutions. The term Non-Formal Education is defined as the education outside schools without restriction of time and space. More specifically, it is education that occurs out of formal schooling systems, and hence all learning that does not happen within accredited institutions of learning. As for the educational concept the Non-Formal Education is an innovation of 20th century (Shiror, 1995).

NFE is characterized as a sequential arrangement of learning process; befalls outside the context of formal education, but it is most often a component of other organization or curriculum (Bano, 2018). NFE has been described as an international phenomenon that especially developed particularly in the second half of the 20th century due to the issues of general socio-political and economic development. Moreover, it has gained popularity as a result of cost efficiency and it has the natural tendency of flexibility in meeting the needs of the marginalized community. Other forms of education falling under NFE are literacy, apprenticeship and in-service training in various disciplines such as healthcare, farming, computer literacy, women's issues, and community (Beare et al., 2018).

Pakistan being a developing country has scarcity of resources due to increasing population. The enrollment rate in the schools is not as per increase in the population, due to which 26 million children of school going age are not attending any educational institution (Pakistan Institute of Education, 2021-22). A non-formal system of education has been applied to different regions of the world to tackle the critical problems of traditional mass illiteracy and building up social consciousness. It has been recognized that educational disparities cannot be addressed through the means of the formal system only without influencing population through NFE programs. Thus, understanding the benefits of non-formal system, various developed and developing countries have incorporated NFE in their national system of education. In Pakistan, there is dire need to initiate a literacy campaign in order to achieve the targets set in 25A article of the constitution; providing free and compulsory education to children age 5-16 years is the

responsibility of the government. Besides, the country is far behind the target of 100% literacy as mentioned in EFA (Education For All) goal of Dakar declaration (2000), which was supposed to be achieved by 2015. Hence, the NFE became a basic requirement in Pakistan due to the rigid structure and high cost of formal system which failed to accommodate the increasing demands of education in the country.

Over the last few years, several Non-Formal Education programs have been launched in Pakistan. Initially in 1950, Non-Formal and Basic Education (NFBE) was launched as the Adult Basic Education Program (UNESCO, 2006). Nevertheless, along with that program several other related programs were also introduced but desired initiatives have not been taken to develop a mass-scale Non-Formal Education program. Setting up of Non-Formal Education Schools (NFES) has become crucial to achieve the literacy targets as mentioned in national educational policies and educational plans of Pakistan. Keeping in view the limited resources; with single room and single teacher, the Non-Formal Education system has been very effective in supporting the universal primary education (National Plan of Action, 2000) and catering the needs of multi grade children of various ages.

NFE schools have been opened in districts where out of school children are found in abundance. There are some reasons for the emergence of the Non-Formal Education in Pakistan such as most of the schools are not well equipped, especially in far-off rural areas, lack of trained teachers, long study hours of formal schools, challenges in attending formal schools, socio-cultural economic and cultural problems, high school dropout rate and a greater number of out of school children (Govt. of Pakistan, 2024). In this regard, Social Action Program (1992), Education Sector Reforms (1970) and the National Plan of Action (2000) are considered as the important initiatives towards “Education for All (EFA)” that particularly focused to improve literacy rate and huge amounts of funds were allocated for that purpose. The National Plan of Action (2000) is regarded as a roadmap to achieve the targets under EFA. The plan served as a testament to resolve the issues of education and determination to increase the literacy rate by focusing on universal primary education.

This study focused on Non-formal Basic Education (NFBE) schools established under the Punjab Non-Formal Education Project (PNFEP) to provide education to the Out-of-School Children of marginalized communities. These temporary schools, catering to students aged 4 to 16, are working in areas; industrial zones, brick kilns, and

philanthropic premises. The NFBE program aimed to prepare students for grade V examinations conducted by the Punjab Examination Commission (PEC). Despite of challenges like inadequate funding, poor resource availability, and insufficient physical facilities, the effectiveness of NFBE schools is measured by students' ability to complete primary education and qualify for further schooling. These schools are designed to meet the educational needs of marginalized communities and to sustain students' enrollment through stipends and skill development opportunities.

The NFE curriculum follows the regular syllabus approved by Punjab Curriculum and Textbook Board (PCTB), which may be adopted in full or in abridged form as per the policy of Literacy & Non-Formal Basic Education (L&NFBE) Department. Textbooks used are those recommended by the Punjab Curriculum and Textbook Board as provided by the project. Teaching-Learning Material (TLM) includes textbooks, supplementary materials (e.g., reference books, leveled readers, newspapers, worksheets, activity books, children encyclopedias), and teaching aids (flashcards, maps, posters, etc.) developed or procured. The curriculum aims to provide flexible, easily understandable, and locally relevant content to cater to marginalized and disadvantaged learners. The duration for which these NFBE Schools are operational is up to 40 months or until a formal education facility becomes available in the area, or until 100% mainstreaming of learners is achieved. Teaching hours: Each school operates four hours per day, with flexible timings decided between field staff, NFBES teacher, and parents (Government of the Punjab, 2019).

1.1 Rationale of the Study

Pakistan is among those few countries of the world which have large number of out-of-school children and despite of several efforts, universal primary education still seems to be a dream. Most of the out-of-school children belong to remote areas or poor families. Non-formal and Basic Education initiatives have the potential to cope with this challenge. The Government of the Punjab, recognizing the potential of the non-formal and basic education, has launched several initiatives of literacy and NFE projects, particularly in the districts with low literacy rates and higher number of out-of-school children (ASER, 2020).

The Punjab Literacy & Non-Formal Education Policy (2019) aimed at provision of quality learning opportunities to all marginalized and out-of-school children to

impart life-long education and literacy skills in the Punjab. In his regard, Government of Punjab also launched several initiatives such as Adult Literacy Centers (for prisoners, transgender, fisherman, drivers, railway workers), Ilam-O-Hunar (knowledge and skills) project and Non Formal Education Adolescent Centers. These NFE programs played a crucial role in extending basic education and essential skills to those who have been left out of the formal schooling system. However, the effectiveness and impact of these initiatives remain understudied, and the challenges faced by non-formal education teachers and learners are not well-documented. The teachers of Non-Formal Education are facing many challenges including lack of resources, limited training opportunities, less remuneration, lack of facilities and infrastructure. The provision of quality education and learning opportunities for all is a fundamental right and a crucial aspect of sustainable development. However, a significant portion of the population in Punjab, Pakistan remained deprived of access to formal schooling. According to government estimates, there are over 10 million illiterate individuals and 2.4 million out-of-school children in the province (as cited in Punjab Literacy & Non-Formal Education Policy, 2019). This educational disparity is particularly severe among marginalized communities, including those living in remote rural areas, urban slums, and disadvantaged socio-economic backgrounds.

Punjab Literacy & Non-Formal Basic Education (L&NFBE) Department reported that studies are needed not only to explore the potential of Literacy and Non-Formal Basic Education projects but also to find the issues and challenges faced by the teachers and officials of these programs to make these programs more effective. Moreover, the project-specific studies have also been conducted by the national and international organizations that launched numerous programs of literacy and basic education (Asif et al., 2021). Nevertheless, these studies just reflect on the achievements of those launched programs instead of giving complete evaluation of the programs, which may give guidelines in order to launch other non-formal and basic education programs.

In order to provide technical and vocational skills to students of marginalized areas and bridge the gap between employability and formal education; NFE programs are playing an important role. Due to location, social structures, and finances, students of marginalized areas remain unable to receive the same quality of education as the students of developed areas receive. Therefore, to respond the needs of local

community and facilitate paths to work by developing practical skills among students, NFE programs offer flexible mechanism for community-based learning (UNESCO, 2022). Skills that are being developed among students of marginalized communities can enable them to earn sustained livelihood such as computer literacy, carpentry and mechanics. A report of International Labor Organization (ILO, 2020) reflected that by equipping students with skills helpful for generating income, NFE programs are playing significant role in poverty reduction and opening new avenues of entrepreneurship and self-employment.

Likewise, it has been indicated by World Bank (2018) report that technical and vocational skills that are being developed among students of marginalized communities are playing role not in poverty reduction but these are great source of promoting social inclusion as well. Developing life skills and vocational skills among students that is the main agenda of NFE programs is enabling students to meet the demand of rapidly changing job market and 21st century (OECD, 2023). Keeping in view the significance and transformative impact of NFE programs, international organization and government agencies are increasing their investments in mobile learning initiatives and community building training centers. Initiatives to expand NFE programs in marginalized areas are considered as the part of strategic approaches that have been launched to achieve the Goal 4 of Sustainable Development Goals (United Nations, 2022) which emphasizes on equitable, inclusive and quality education for all.

A report of UNESCO (2004) indicated that children of less developed areas are encountering various socio-economic challenges such as inadequate infrastructure, poverty, and cultural barriers; and due to these barriers, they are unable to attend regular schools. In marginalized areas, where traditional system of education is facing challenges in providing fair access to quality learning, NFE programs are playing significant role to improve functional literacy skills of students. These programs are offering skill based and community focused learning opportunities by offering numeracy and literacy skills according to the specific needs of marginalized children. These skills can not only ensure lifelong learning among students but they are also playing significant role in personal and professional development of students.

It has been indicated by UNICEF (2023) that by adopting contextualized teaching learning approaches, NFE programs are contributing to upgrade the level of employability of social inclusions in less developed areas. NFE programs have ability to complement formal education system as they have considerable ability and

flexibility. It has been endorsed by Azevedo et al. (2021) that by encouraging community involvement and stakeholders' participation NFE programs are working effectively to tackle educational disparities that were existing in the form of unemployed youth and huge number of out-of-school children (approximately 25 million). In order to ensure meaningful and needed engagement of community and address the challenges of NFE programs, there is need to enhance the effectiveness of these programs with the aim of equipping students with technical and vocational as well as functional literacy skills.

Burusic et al. (2016) stated that in developing countries, majority of people reside in the rural areas and have faced numerous challenges related to educational facilities and services. The educational requirements of most of the rural areas were key competencies including literacy, numeracy, health education, community education and technical skills. All of these needs can be easily addressed by Non-Formal Education thus, it may be stated that NFE is learning and training program deliberately planned or systematically articulated.

Previous researches have highlighted several challenges faced by NFE providers in Punjab, including lack of resources, limited training opportunities, inadequate compensation and insufficient facilities and infrastructure (Memon & Bhutta, 2019). These challenges can hinder the ability of NFE programs to deliver quality learning experiences and achieve their intended outcomes. Furthermore, the existing literature on NFE in Punjab has primarily focused on descriptive analyses and program-level evaluations, but there are limited in-depth studies of the broader systemic and contextual factors that influence the effectiveness of Non-Formal Education programs. Therefore, a dire need emerged for a more comprehensive and analytical understanding of the overall effectiveness and challenges of literacy and basic education programs in the province. Hence this study aimed to address the gaps by conducting a detailed analysis of the effectiveness and challenges of literacy and basic education programs in Punjab, with a particular focus on non-formal education initiatives.

1.2 Problem Statement

Pakistan, like other developing nations, strives to provide its citizens with an adequate education despite of the limited budget. As formal education cannot cater the educational needs of present population therefore, various Non-Formal Education

programs were launched in different provinces for streamlining the marginalized children. In Punjab, Non-Formal Basic Education Department launched different Non-Formal Basic Education programs to provide primary education for out-of-school children. Despite various efforts by the government of Punjab to provide primary education through Non-Formal Basic Education (NFBE) programs, a significant number of marginalized children in South Punjab remain out of school or inadequately served. It is unclear how effective these NFBE programs are in actually enrolling, retaining, and educating these marginalized children. Furthermore, the specific challenges hindering the success of these programs in South Punjab have not been thoroughly investigated. The research problem is that whether Non-Formal Basic Education programs are effective in terms of streamlining the marginalized children. Therefore, this study was conducted to analyze the effectiveness and challenges of Non-Formal Education programs in South Punjab.

1.3 Objectives of the Study

The objectives of the study were to:

1. Determine the effectiveness of Non-Formal Education programs in streamlining the marginalized students and scaling up functional literacy level in Punjab.
2. Investigate the correlation between academic achievement levels of students of Non-Formal Education Schools for the subjects; English, Mathematics and Science.
3. Compare the academic achievement level of students for the subjects English, Mathematics and Science regarding gender, district and year.
4. Find out the relationship between “streamlining and marginalizing” and “scaling up functional literacy”.
5. Explore the role of Non-Formal Education Programs in developing technical and vocational skills among students.
6. Analyze the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab.

1.4 Research Questions

In order to address objectives, following research questions were formulated:

1. How effective are the Non-Formal Education programs in streamlining the marginalized students?
2. How effective are Non-Formal Education programs in scaling up functional literacy for the students?
3. What is the role of Non-Formal Education programs in developing vocational and technical skills among students?
4. What are the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab?

1.5 Hypotheses of the Study

In order to address objectives 2-4, following null hypotheses were formulated:

H_{01} There is no statistically significant correlation among students' marks in Functional Subjects; English, Mathematics and Science.

H_{02} There is no statistically significant difference in the academic achievement of male and female students.

H_{03} There is no statistically significant difference in the academic achievement of students among different districts.

H_{04} There is no statistically significant difference in the academic achievement of students from 2019-2023.

H_{05} There is no statistically significant relationship between "streamlining and marginalizing" and "scaling up functional literacy".

1.6 Significance of the Study

The findings of this study will be beneficial for policy makers to make educational policies and plans according to the contemporary challenges of NFE. Moreover, the findings will also be helpful for the teachers of adult literacy level in order to develop new learning strategies; for administrators of literacy department to develop administrative strategies according to the new challenges, needs of students and general public at large. Furthermore, findings will also be helpful for instructional designers and curriculum developers to design the study materials and curriculum according to the need of the students particularly in the Literacy & Non-Formal Basic Education Department. The research will also be helpful for researchers as it will highlight key challenges and related aspects of NFE programs for further exploration.

This study will be also helpful for the teachers and students in the field of non-formal literacy as it will set forth strategies that may be beneficial in achieving desired learning outcomes and academic achievement level.

1.7 Delimitations of the Study

Following were the delimitations of this study:

1. The Non-Formal Education Programs offered by the Literacy & Non-Formal Basic Education Department; Government of the Punjab.
2. Five districts of south Punjab: Multan, Muzaffargarh, Dera Gazi Khan, Rajanpur and Rahim Yar Khan.

These districts were selected due to low literacy rate. Moreover, these districts consistently lag behind other regions of Punjab in key indicators of educational attainment, making them critical areas for evaluating the effectiveness and challenges of Non-Formal Education (NFE) programs.

3. PEC data of five years passing students (2019-2023) of NFE schools running under Literacy and Non-Formal Basic Education programs Punjab.
4. Age group of primary level students (5-9 years)
5. District Education Officers (DEOs), Social mobilizers and teachers of Non-Formal Education Programs.

1.8 Operational Definitions

1.8.1 Non-Formal Education

Non-Formal Education refers to any activity that is systematically organized, outside the formal system, offering selected types of education to specific sub-groups of the population (both adults and pupils). This educational activity is flexible with reference to time, location and age of students but planned in terms of syllabus and assessment system. In this study, Non-Formal Education Programs have been confined to the program offered by the Literacy & Non-Formal Basic Education Department; Government of the Punjab.

1.8.2 Effectiveness

In this study, effectiveness refers to the measurable improvement in students' academic achievement in English, Science, and Mathematics attained through non-formal education programs over the last five years, as evaluated by standardized

assessments. This effectiveness is systematically analyzed by comparing academic achievement outcomes across genders, among different districts, and over successive years, thereby reflecting the program's impact in terms of equity, regional variation, and longitudinal progress.

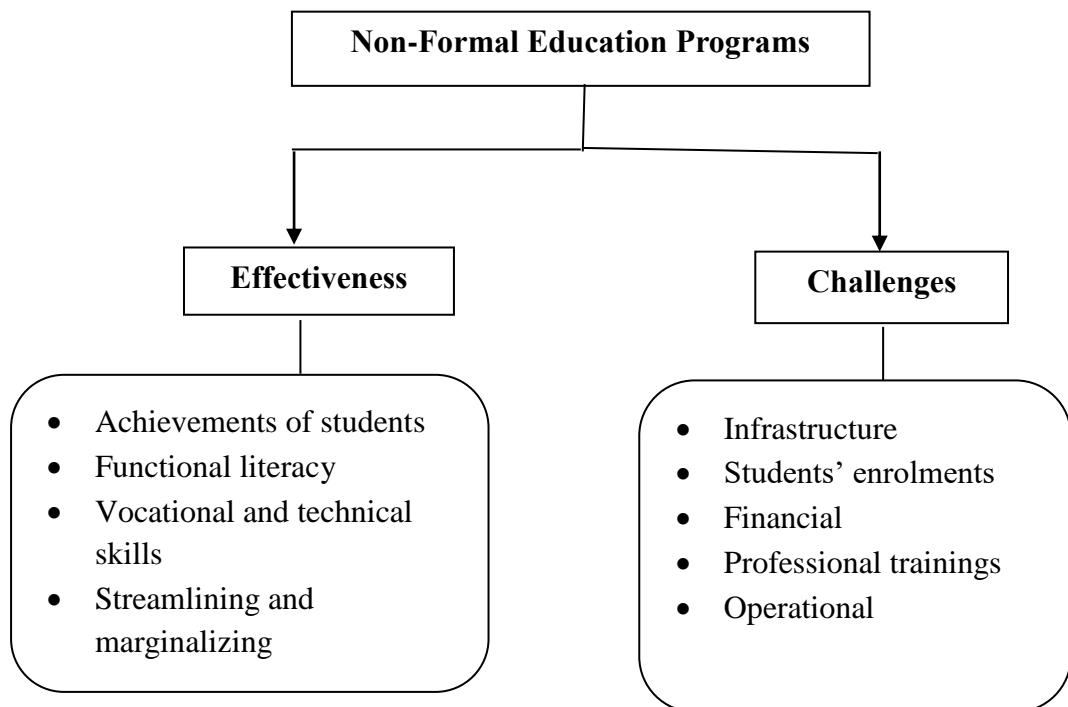
1.8.3 Challenges

Challenges refer to the obstacles, barriers, or constraints that hinder the effective implementation, delivery, and outcomes of Non-Formal Education programs in Punjab. These challenges may be encountered by various stakeholders involved in the implementation of NFE programs including teachers, social mobilizers and district education officers.

1.9 Conceptual Framework

Figure 1.1

Conceptual Framework of the Study



(Gull, 2018; PLNEFP, 2019)

CHAPTER 2

LITERATURE REVIEW

This chapter deals with the review of related literature including background and context of study, various types of Non-Formal Education (NFE), effectiveness of Non-Formal Basic Education Schools (NFBES) in improving literacy rate, and challenges of literacy and basic education programs in Punjab, Pakistan. More specifically, this chapter includes detailed review of the theoretical aspects, empirical studies and summary of the literature.

2.1 Background and Context of Study

Literacy is an important index of human resource development of a society. That's why "Adult Literacy Rate" was introduced in order to record the pace of human resource development in different countries and their global ranking in it as part of the Human Development Index (HDI), which the United Nations used to estimate this position of a country since 1990. Furthermore, promotion of literacy was mandated by the different international development frameworks and declarations (Dakar Framework of Action for Education for All (EFA) and Millennium Development Goals (MDGs) for the period of 2000-2015, and now the Sustainable Development Goals (SDGs) for the period of 2016 to 2030) while literacy rate is one of the indicators to evaluate progress of any country.

According to UNDP (2021-22), Pakistan was ranked at 161 out of 191 countries in HDI, placing the country among those at bottom. Likewise, the Human Capital Index (HCI) ranking for year 2020 placed country at 144 out of 173 countries, again at bottom as in HDI. Here, it is pertinent to mention that both HDI and HCI counts literacy rate and years of schooling or participation rates as basic indicators in calculating the said development indexes. Low literacy rate, prevalence of out-of-school children and low quality of education are among the major causes for low development indicators and putting the country at bottom of both development indexes. According to Pakistan Social and Living Standards Measurement (PSLM 2019-20), literacy rate of 10 years and older population in the country was 60%, while the same for 15 years and older was 57% and was 72% for youth age cohort (15-24 years). Data further reveal that literacy rate in urban area was better than rural areas; 74% and 52% respectively. Literacy rate

of women was significantly less as compared to male especially in rural areas. Data confirmed that literacy rate of women was 49% as compared to men who were 70% literate. Similarly, women in rural Pakistan were only 39% literate, while literacy rate of women in rural Balochistan was only 22%. It is worthwhile to mention that low literacy especially in rural areas impact negatively to survival and health related indicators, which are counted as well in calculating development indicators. In addition to low literacy, Out-of-School Children (OOSC) was another critical challenge, which not only contributed to low literacy but also in poor school participation or years of schooling rates (Government of Pakistan, 2024).

Non-Formal Education (NFE) includes educational programs that aim to provide basic education for Out-of-School Children (OOSC), adult literacy and life skills to all. Non-Formal Education programs are generally fast-tracked, flexible and designed to empower learners by allowing them to return to formal education; continue their education outside of school; become literate through adult literacy programs within the framework of life-long learning; be enable to access technical and occupational skills on the basis of literacy attained. NFE supports life-long learning and offers prospects to learners to attain and update knowledge and skills before and after schooling and serves as an asset in human resource development. Role of NFE in dealing with the issue of out-of-school children and adult literacy has been acknowledged at global level by educationists for its innate flexibility to supplement local needs, cost effectiveness and speedy outcomes.

2.1.1 National Educational Policies

Every educational policy of Pakistan has focused on the basic education and adult literacy. First Educational Conference (1947) considered it essential that a national system of education should be based on strong foundations and proposed separate pre-primary and primary education stages for children of ages 3-6 and 6-11 years. It also highlighted that the principal goal of the adult literacy campaign must not be just to make adults literate but to keep them literate. Furthermore, National Commission on Education (1959) made ten-years education obligatory and focused on eradication of illiteracy. Education Policy (1970) emphasized on decentralization of education and eradication of illiteracy.

The National Education Policy (1972) declared free and universal education up to 10th grade for both girls and boys. National Education Policy (1979) stressed on the compulsory free education, promotion of science and vocational education, effective participation of community in literacy programs. National Education Policy (1992) focused on promoting private sector to contribute in enhancement of literacy. National Educational Policy (1998) concentrated on Universal Primary Education (UPE) and improvement of literacy rate to 86 percent by 2015. Education Policy (2009) emphasized on free and compulsory primary education, NFE & Adult Literacy, equity, access and quality. The National Education Policy (2017-2025) set goal for increasing literacy rate up to 90 percent by 2025. Punjab Literacy & Non-Formal Education Policy (2019) also emphasized on promotion of literacy

2.1.2 Constitutional Obligations

Education is the basic right of all people in any civilized and progressive nation. The Pakistan's constitution has assured to its citizens in Articles: 2(A); "Wherein shall be guaranteed fundamental rights including equality of status, of opportunity and before law, social, economic and political justices, and freedom of thought, expression, belief, faith, worship and association, subject to law and public morality." 22-3(B); "No citizen shall be denied admission to any educational institution receiving aid from public revenues on the ground only of race, religion, caste or place of birth." 25-A; "The state shall provide free and compulsory education to all children of the age of five to sixteen years" 25-(2); "There shall be no discrimination on the basis of gender." 37 (B); "The Government shall eliminate illiteracy and provide free and compulsory secondary education within the minimum possible period; make technical and professional education generally available and higher education equally accessible to all on the basis of merit."

According to the Vision 2025, i.e. first priority is to provide every citizen the ability to improve his/her choices and quality of life. This vision has set target of: increasing primary school enrollment to 100 percent and literacy rate to 90 percent and improving primary and secondary gender parity index to 1, and increase female workforces participation rate from 24-45 percent.

SDG 4 (Inclusive & Quality Education) has prioritized equitable quality education and also promoted lifelong learning opportunities for all. This goal has seven

targets and three means for implementation, covering all levels of education; from early childhood, primary to secondary, technical vocational for decent jobs, and university through formal, non-formal and technology enabled channels, conducive learning environments, adequacy of qualified teachers and opportunities for scholarships to pursue continuous learning.

Millennium Development Goals Declaration (MDGs): MDG 2 and 3 related to education and set the goals of achieving 100 percent enrolment and completion rate at the primary level. Literacy rate among population of age 15-24 years was stated as one of the indicators of MDG 2 by the global community. Dakar Framework of Action for Education for All (2000-2015): committed to attain Universal Primary Education (UPE) and increase its literacy rate by 50 percent within next 15 years. Likewise, "Life skills" was also incorporated as a basic educational need for all young people under this agenda. Child Rights Convention Article 28 (Right to Education) declared that all children have the right to primary education, which should be free. This convention placed a high value on education and young people should be encouraged to reach the highest level of education of which they are capable. Punjab Literacy and Non-Formal Education Policy (PLNFE, 2019) has provided a path for the Punjab to meet the national and international commitments.

2.2 Theoretical & Empirical Review

Theoretical and empirical review of researches related to non-formal education programs is as follows:

2.2.1 Non-Formal Education (NFE)

The term Non-Formal Education is used in any number of circumstances that are outside the formal school system, with its successive levels of advancement and specialization. At its core, NFE is flexible however it trails formal principles of learning and recognized milestones representing educational accomplishment. NFE is any structured educational activity that takes place outside the formal educational system. In the view of Shiror (1995), NFE comprises all learning that takes place outside of regular schooling regardless of when or where it takes place. In other words, it includes any education and training gained in settings apart from traditional classrooms.

The target population for NFE includes children at risk in schools (primary, elementary and high schools)", out-of-school children and adolescents (who dropped

out and/or ever enrolled in any school), as well as youth and adults. NFE programs can feature across a variety of basic literacy interventions, including primary, middle and secondary education programs. Often, they may be combined with life skills initiatives addressing vulnerable groups, or used as an extension to technical and vocational skill development programs for improved livelihood opportunities.

Applicability of Non-Formal Education (NFE), which is a combination of Non-Formal Basic Education (NFBE) and adult literacy learning models, offers a viable strategy to deal with out-of-school children and low literacy issues simultaneously. NFBE is an approach and flexible model of providing right to education to OOSC especially those who have limitations in studying in formal schools. Similarly, the prevailing low literacy issues in Pakistan, which points towards low levels of reading and writing among youth and adults, are addressed by providing literacy and numeracy skills through various relevant delivery options. NFBE provides second chance in the form of an alternative education model that offers flexible, fast track and equivalent education. Such models are also known as Accelerated Learning Programmes (ALP) (Government of Pakistan, 2024).

2.2.2 Types of Non-Formal Education

Major types of NFE include para-formal education, popular education, personal development, professional and vocational training, early childhood care and education, supplementary NFE programs and literacy with skills development (UNESCO, 2006). A detailed description of each type is as follows:

a) *Para-Formal Education*

Non-Formal Education can be broadly categorized into two distinct types: large-scale programs that function similarly to formal parts of the education system and may constitute a non-formal counterpart to a formal provision (for example, a sub-system of non-formal polytechnics or of adult basic education) and small-scale programs that are essentially short-term, problem-oriented training activities serving disadvantaged communities. The first group has been labeled "Para-Formal Education" (Kaur, 2013) since it operates independently from the formal system yet is commonly used as a replacement for formal services. Para-Formal Education is a term borrowed from Argentina to describe a spectrum of extracurricular activities that fall between the highly organized, structured and full-time formal programs and the myriads of less

formal, part-time after-school options. The education authorities frequently fund and support extracurricular activities that exist in parallel to the conventional curriculum.

These are "educational programs that provide an alternative to regular full-time schooling," as defined by Kaugi (2015). Programs like this are designed to give students a second opportunity after they were unable to succeed in a traditional classroom setting for whatever reason. Evening classes, formal literacy and distant education programs, individual tutoring, specific programs for youngsters living on the streets and various forms of vocational and technical training are all examples of Para-Formal Education. Community (or village) school programs, major NFE sub-systems, Islamic schools, mobile schooling, and homeschooling all deserve special recognition in this context because of their importance to children and young adults.

Historically, NGOs have been the primary drivers of para-formal education programs, frequently in partnership with international technical or funding institutions. Some of them have been around for a while and have expanded into large systems; examples include the Bangladesh Rural Advancement Committee (BRAC) in Bangladesh and the Consejo Nacional de Fomento Educativo (CONAFE) in Mexico. To accelerate EFA for the un-schooled (like Complementary Basic Education in Tanzania, or COBET) or to reach specific categories of hard-to-reach children, for example those in nomadic communities (like mobile schools in Kenya) and pastoralist communities (like 'shepherd' schools in Botswana and Ghana). Increasingly, it is possible for such programs to become joint ventures between the state and civil society covered by formal agreements, in which the state acknowledges the unique contributions made by NGOs in developing and implementing programs tailored to the needs of particular population, and in which the NGOs receive funding and technical assistance in exchange for meeting quality standards (Latchem, 2018).

Para-formal education is significant for policy making because of its magnitude and in most cases, the priority attributed to its parity with formal education. Some analysts have argued that para-formal education is distinct from other types of NFE because of the relationship between such forms and formal certification. According to Lim et al. (2016), NFE is distinct from "Extra-School Education" (ESE), which he defined as "efforts legitimately classified as formal education" although technically outside the scope of the regular school. Education is thus provided "via an alternative route" in a conventional sense.

a) Popular Education

La Pointe (2006) presented a different classification system for out-of-school learning. In addition to the para-formal education, NFE includes three other types: popular education, self-improvement and workforce development. It was thought that popular education was on the other end of the spectrum, with initiatives that actively distance themselves from conventional education and even challenge its foundational tenets.

The primary features included; a focus on the poor, learning by doing approach, a high degree of structural flexibility and a persistent concern for tailoring the learning activities to the users' evolving requirements. These are the kinds of things that are most in line with what NFE's early advocates had in mind in the '60s and '70s. When looking for alternatives to human-capital oriented non-formal (adult) education, the 1960s and 1970s witnessed the rise of a movement as popular education. Here, awareness-raising, or the kind of psychosocial pedagogy often associated with Paulo Freire, has played a crucial role in helping people view their social world in new ways. As a form of NFE with a specific goal (the integration of critical thinking, literacy and other foundational skills), popular education also needs to be viewed as a flexible tool for social change (Mathur, 2017).

In the recent decades, popular education has become less oppositional, seeking partnership with the state in working for social change. Although, it has remained associated with social movement for structural change. As a result, the educational process in the framework of education system democratization and partnerships with traditional public schools has received more attention (Micheni, 2015). Outside of Latin America countries like Canada and Sweden use the term "popular education" to refer to a wide range of educational initiatives that aim to improve citizens' understanding of social and political issues and their ability to take action in response to them. They can be politically mobilizing because they prompt people to question the status quo (Milner, 2012). However, other popular educational examples imply that the gap between the formal system and schools implementing a popular education approach may not be as large as it may seem.

b) Personal Development

The personal development subcategory of NFE attained significant growth throughout various regions, most notably the North. Programs that encouraged a wide variety of learning techniques coordinated by cultural organizations were considered to be part of this category. Courses can be purchased for personal use or as an investment in one's future workforce potential (Moraa, 2012). According to Mutiso (2014) this was the landscape of the new adult education which took many different forms and was increasingly private and transient. Common forms of self-improvement include staying in a residential facility for a short period of time, going on educational trips, joining fitness centers, sports clubs and self-therapy groups. Lifelong learning programs like these were common in the North because they addressed the call for people to do something worthwhile with their (increasingly abundant) free time and money.

c) Professional and Vocational Training

Professional and vocational training encompasses all education beyond the skills training that leads to nationally recognized diplomas but not limited to para-formal education. Thus, this category included programs for the unemployed in the context of re-employment of the workforce, as well as on-the-job training, artisanal or informal sector apprenticeships, agricultural or industrial extension services, entrepreneurship development programs and all forms of in-service skills development. Many private schools and universities offer industrial, commercial or creative programs that do not lead to recognized certificates.

In the North, the progression of registered types has outpaced all other forms of skills development as a result of economic growth. The informal economy, including non-traditional forms of apprenticeship has become a major source of non-formal skills development in many countries (Mwenzwa & Misati, 2014). For decades, young people trying to make the jump from school to work have relied heavily on non-formal vocational training programs regardless of their level of schooling. These programs used to be very similar to their formal system counterparts and they were very good at finding jobs for their graduates because of the perceived benefits of giving hands-on skills development. But in recent decades with slow growth in the formal sector and rising poverty, the benefits of such training have typically eroded, at least for youth from marginalized community. The majority of today's non-formal education occurs on

the job and considerably closer to the places where workers are needed. Skills' training was conducted in direct response to economic requirements by producers' associations, local employers, or local government in many countries, but especially in those with a greater percentage of informal sector organization, like in West Africa. The commercial sector also provided a plethora of training opportunities particularly in the areas of community and information technology. The outcome is emerging expenditures for young people to acquire new skills (Nariman & Sabir, 2019).

d) Literacy with Skills Development

Another non-formal training model, which combines reading and writing instruction with practical skills instruction, has also seen significant growth. Adult education, NGOs and sometimes state or municipal governments are the only providers of this combination. There have been NFEs like this for a while, and certain programs have served as illuminating examples of what can be accomplished through the provision of integrated support services for economically disadvantaged adolescents, preparing them for life and the workforce (Noreen et al., 2011). This form of NFE appears to have garnered renewed interest from NGOs and governments in recent years, particularly in contexts where large numbers of young people have inadequate or no formal schooling, are too old to be accepted into the formal system, and are living in such extreme poverty and marginalization that they require unique combinations of training and personal support.

Common components of these types of programs include instruction in functional literacy, as well as orientation toward self-employment and the development of skills to generate revenue. Programs for street children and patronized schools in Thailand and the 'Alternative Learning Opportunities' programmer in Lesotho are two examples of government intervention to bring quality basic education to young people (Ololube & Egbebor, 2012). It is noteworthy that such programs have come to play an essential role in post-conflict nations like Liberia and Sierra Leone that face tremendous obstacles of rehabilitation, relocation, and reconstruction. Here, programs for young people focus on more than just teaching basic skills like reading and writing; they also address issues like environmental degradation, poverty alleviation, HIV/AIDS awareness, and community rebuilding as a result of their incorporation into larger socio-economic and political development programs (Pramitasari et al., 2018).

e) Supplementary NFE Programs

These programs are a key variation on the aforementioned model of NFE for younger children. These initiatives target vulnerable youth who are still able to attend school by providing them with a range of supplemental support services. Children who are at risk because of war, persecution, poverty, neglect, or abuse are included in this category. They include children who have been orphaned, abandoned, displaced or impacted by HIV/AIDS. These programs not only make more efficient use of the benefits of both formal and non-formal components within a single overall program by combining them but they also strengthen the bonds between the school and its social and institutional environment (Pilgrim & Martinez, 2013). The school is not responsible for providing these individualized services; rather the government, non-profits or community-based organizations do. Individuals may receive help in the form of counseling, food, childcare, security, shelter or medical care. Additional training in areas like health and life skills may also be a part of this. Government agencies and civil society organizations provide such support services to aid in rehabilitation and to enable such children to effectively benefit from education in a context of increased poverty, marginalization and conflict (Polio & Friedman, 2016).

The concept of the 'broad school' in the Netherlands and of 'full-service schooling' in Australia are equivalent programs for industrialized countries because they make a concerted effort to link specific types of schools directly with a range of other sector-support services that are essential to enable disadvantaged youth to succeed. Work experience, work-orientation programs, entrepreneurship development, life skills development and various remedial activities are all examples of programs that fall into this category as are initiatives in which formal schools or educational authorities arrange for these components to be provided by professionals (such as artisans) or volunteers in the community or by special government or non-governmental bodies. In the context of EFA, there appears to be a renewed emphasis in fostering connections between students' academic and professional lives. They also create initiatives to "bring the school to the learners," such as the "market schools" in Nigeria (Rahmati et al., 2010), in response to conditions in which working children are unable to attend full-time schooling.

f) Early Childhood Care and Education (ECCE)

This is an integral part of NFE due to the significant progress in many Southern countries, particularly in urban areas; the majority of young children of pre-school age either receives no structured form of early learning or is engaged into numerous versions of home-based or community-based care. Access to the ECCE is strongly correlated with any country's degree of development as a result; children from low-income families are disproportionately underrepresented in the NFE program. Home-based care is more properly classified as non-formal education whereas pre-school programs can be considered para-formal. Here, most ECCE is given by parents or community organizations who try to provide as much structure as they can for young children in accordance with local customs and their own understanding of how to best foster their healthy growth and development. The number of NGOs that offer training and other support services to improve the quality ECCE is growing as a result of the need for consensus among parents, practitioners and policymakers.

When analyzing the current rates of youth participation, several categories are particularly important which include para-formal education, Non-Formal Education forms of professional and technical training, and literacy with skills development. Hence any classification of NFE into discrete classes is of primary empirical concern. It provides a distinction in time that is useful for policy planning and/or administrative purposes and that furthermore, can vary from one country to another (Reynolds et al., 2014).

2.2.3 Dynamics of Formal and Non-Formal Education

Having pointed to the relevance of differentiation and the distinctions among different types of NFE within the context of a broader field of basic education, it is also significant to dwell on the wider rift that exists between formal and non-formal education. This is of relevance if one needs to assess the socio-political dynamics of NFE. Rogers (2014) noted following two specific challenges posed by NFE:

1. It points to educational opportunities outside of the formal education.
2. It maintains a sense of the need for innovative and flexible modes of education (p. 249). To be sure, the notion of being separate from the government-controlled system of education, as well as the notion of flexibility, has for a long time appeared to be at the heart of NFE and thus featured strongly in any

definition of the latter. This would still be the case if, for policy and planning reasons, other more professional discourses (for example on para-formal education, integrated basic education or the learning society) became more prominent. Moreover, this would also still be the case irrespective of the terms being utilized to refer to what is generally listed under NFE.

In Europe, North America and much of the South, it has only been in the last two centuries that forms of people's learning were overtaken and, to a greater or lesser degree, replaced by an age-graded, hierarchically-structured and certifiable model of education propagated by the state. Such forms of formalized education have been part of history in other countries around the world (as in classical China and India), serving very particular purposes in state administration or in religion. In these contexts, NFE reflects the power and impact of such systems, as the latter marginalize other forms of learning and, in turn, provokes new responses in the area of people's education. Equally, the open terrain of NFE incites external factors to instigate their own learning programs (Rizvi & Khamis, 2019).

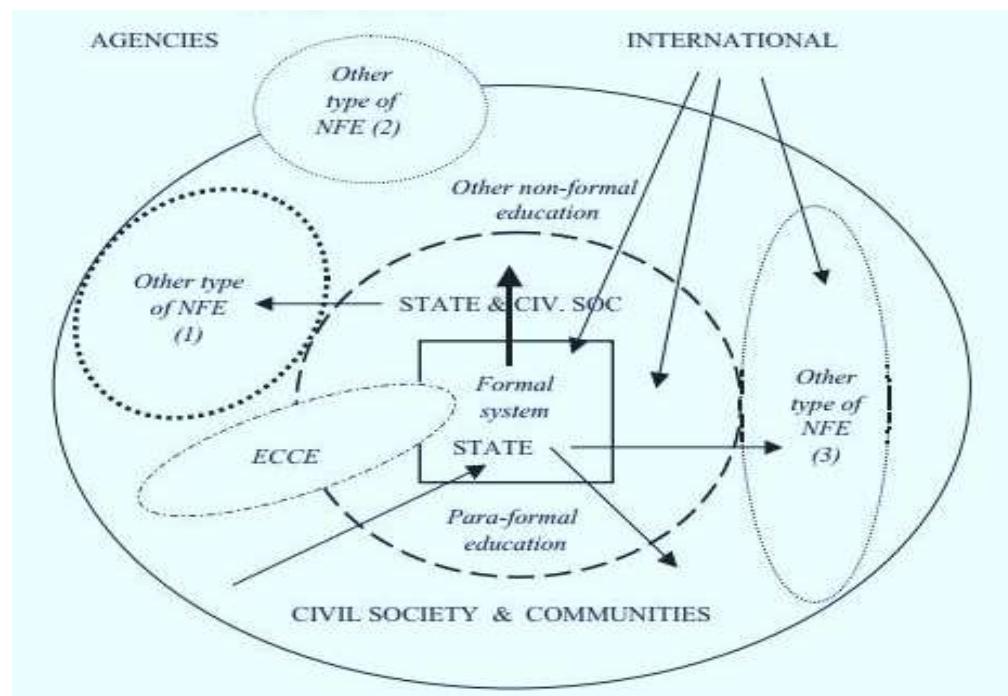
In a diversified educational field, in which various types and forms of education can exist side by side and interact with one another, a central distinction between what is formal – and thus abides by organizational and curricular rules imposed by the state – and what is non-formal and thus more or less exempt from such rules remains. It also underscores the fact that the growth and decline of the two domains, their nature and their purposes, the degree and format of their interactions, and the extent of the state's involvement in NFE heavily depend on the historical conditions and socio-political forces that influence policy formation and people's preoccupation with education. Furthermore, the historically very different purposes of formal and non-formal education have strongly influenced lasting perceptions about the inferior status of NFE in the minds of policy-makers and the public. They have also shaped the long-standing association of NFE with poor and marginalized populations, women and the unemployed (Roser & Ortiz-Ospina, 2016).

The notion of education as a fairly fluid field has a dominant formal system and a constantly evolving range of more or less non-formal types. Figure 2.1 shows various types of NFE in concentric circles with a square box representing the formal and dominant part of the system in the center. The para-formal type of NFE encircles the formal system as both tend to have a symbiotic relationship with one another. Early

Childhood Care and Education (ECCE) clearly cuts across the different domains as its largest part is in the ‘other NFE’ domain, while it also has pre-school components and sometimes a part that is officially absorbed into the formal system (such as in South Africa). Other types are more in the margins of the system: ‘other type 1’ is popular education that maintains its autonomy yet keeps its links with the formal system; ‘other type 2’ has one foot outside the system, as it represents those forms that combine NFE with developmental practice; while ‘other type 3’ represents forms that are independent of the formal system and have strong links with external agencies, such as NFE forms of vocational training and literacy with skills development programs. Boundaries have different degrees of openness and permit more or fewer influences from outside parties. Clearly, their boundaries and relative sizes are shifting all the time (Sadruddin, 2013). Each system has its own changing range of forms and shifting interfaces between the formal and the non-formal parts as well as changing patterns of interactions could schematically be represented as depicted in figure 2.1:

Figure 2.1

Schematic Representation of a Diversified Educational Field



The pressure exercised by the state regarding the shape and substance of para-formal forms of education is very important. In the reverse direction there are civil

society pressures regarding the re-shaping of the formal system. This makes the para-formal terrain a significant interface zone. However, in the poor countries of the South all this tends to take place under the watchful eye of international funding and technical agencies. Many of them especially since the 1990s have been maintained by a direct influence over the different domains of education, but have a particular interest in the more formal parts of the field (Samuel & Atinuke, 2019).

2.2.4 Non-Formal Education in Pakistan

The need for non-formal education in Pakistan emerged because the rigid formal education framework cannot compete with the state's increasing education needs and because the cost of formal education is higher (Jumani & Bibi 2011). It is focused on single classes, single teachers, multiple students of different ages and classes. The system of Non-formal education is quite active in promoting universal primary education. The NFE schools are based in areas where the presence of slum dwellers and working children outside of school is high.

Pakistan still faces a significant challenge in providing basic education to the children. With millions of out-of-school children, particularly in marginalized regions, the country falls short of its constitutional obligation to provide quality education. Despite recognizing the potential of Non-Formal Education (NFE) as a solution, its implementation has been hindered by insufficient political will and resource allocation. A research study conducted by Abdullah et al. (2022), focused on evaluating the effectiveness of NFE in Punjab reported that NFE offers a viable and flexible educational option for disadvantaged communities. The study recommended increased investment in NFE and the enforcement of the Literacy Act to address the issue of out-of-school children. Moreover, the potential of NFE as a solution and the need for increased government support to expand NFE programs were also suggested.

According to the UNDP's Human Development Report (2018), Pakistan ranks 150th out of 189 countries with an HDI of 0.56 (where 1 is the highest possible value). Pakistan like other developing countries struggles to provide its citizens with equal access to education due to a lack of funding. Compared to neighboring countries, Pakistan's allocation of GDP to education is lower at 2.4% (Shahid et al., 2021).

Non-Formal Schools (NFS) were established by the Punjab Non-Formal Education Project of the Literacy and Non-formal Basic Education (L&NFBE)

Department, Government of the Punjab to provide an elementary education to children from low-income families who would not have access to one otherwise. Gull and Sarwar (2020) studied the impact of these schools. The department's online database was mined for enrollment data. A total of 990 NFBE schools were identified as part of the project's scope. The goal of establishing schools was to have an enrolment of 19800 students and 33625 students were enrolled. More people signed up than projected by 61%. The study's sample included 373 students from around the country who were selected using a multi-stage sampling process. The researcher developed a series of examinations in Urdu, English, Mathematics and Science to gauge the efficacy of the curriculum. Analysis of exam scores showed that 61% of students scored at or above the median of 33%. On average, male students performed better than female students. Students' average accomplishments in urban and rural settings were virtually identical. So, it was concluded that the Non-Formal Schools were effective in bringing elementary education to children from low-income and marginalized communities who might not have had the opportunity otherwise to enroll in school.

The government of Pakistan has made several efforts in promoting literacy as its top goal ever since independence. There has never been a successful implementation of the requirements established in any strategy or policy. The availability of logistical and managerial resources is a major factor in deciding commitment to a plan or project. Unfortunately, little support exists for the distribution of funds to achieve commitments and goals related to literacy and non-formal education projects such as Adult Basic Education (1950), the Village AID Program (1953), the Literacy Programs under Basic Democracies (1964-1969), the Experimental Pilot Projects (1977-1986), the Iqra Pilot Program (1986), The Neo Literate, Nai-Roshni Schools (1987-1989) and the Quranic Literacy Project (1992-1994) (Hussain, 2009).

The Punjab Non-Formal Education Project (PNFEP) is presently being managed by the Punjab Literacy and Non-Formal Basic Education Department. The PNFEP combines the following six initiatives. These new efforts are an amalgamation of six previous ones. The Government of Punjab set out to accomplish the following with its Phase I of the Punjab Non-Formal Basic Education Project (PNFEP):

- a) To provide primary education to children who are not already enrolled in school through a non-formal method.

- b) To provide children with non-formal education that teaches them valuable life skills (based on their own learning competencies).
- c) To enhance the social and economic conditions in priority neighbourhoods.

2.2.5 Objectives of Non-Formal Education Programs in Punjab

As mentioned in Punjab Literacy and Non-Formal Education Policy (2029), objectives of NFE Programs are as follows;

2.2.5.1 Access

- 1. Create opportunities for equitable access to quality literacy and NFBE, for all illiterate women and men and out of school girls and boys population of all ages in Punjab and for decreasing gender and regional disparity in the literacy rate through generating a workable partnership system with relevant provincial and federal government departments working in Punjab, donors and civil society.
- 2. Motivate and mobilize families, communities and other stakeholders for creating a learning family/society through rights and equity based communication, advocacy and awareness interventions.

2.2.5.2 Quality

- 1. Design and execute quality and relevant NFBE programs including alternate learning paths for OOSC and launch new initiatives to enroll and retain them within PLNFEP 2019 Punjab Literacy & Non-Formal Education Policy 2019 minimum possible time for reducing their number especially disadvantaged and deserving children and those excluded from the mainstream schooling with special focus on girls.
- 2. Design and deliver quality, dynamic and skill oriented adults' literacy programs with special focus on interventions for poor, rural and female segments of illiterate population through collaborating with other Government departments, autonomous bodies including universities, NGOs and private institutions.
- 3. Strengthen NFBE and ensure quality learning at NFE through launching teacher education and training programs in the sub-sector, use of ICT, developing condensed curriculum, creating reliable assessment, monitoring

and supervision systems, building capacity of the L&NFBE Department staff in the aforementioned areas.

2.2.5.3 Governance

1. Ensure availability of reliable, relevant and up-to-date data for planning and managing NFE in the province through developing a broad based data warehouse at L&NFBE Department, and encouraging universities in conducting research in the NFE subsector, especially to identify the reasons for rapid increase in drop outs particularly among girls.
2. Create structures within and under L&NFBE Department at provincial and district levels, and equip them adequately for implementation of the policy actions.

2.2.6 Non-Formal Basic Education Schools

The idea of Non-Formal Basic Education Schools (NFBES) was introduced by the Prime Minister's literacy commission in 1996. In 2002, the Literacy and Non-Formal Basic Education Department of the Government of Punjab, Pakistan was established to improve literacy rates by providing basic education to marginalized and neglected segments of society. Funding for the department was obtained from contributing organizations which was then allocated to support initiatives targeting children who have missed out or dropped out of formal education (Nadeem & Hameed, 2008).

NFBES were established on the premise that parents, community and Non-Government Organization must be actively involved in supporting NFE systems to strengthen learning opportunities for Out-of-School Children (Ojha, 2017). NFBES aimed to complement regular schools by offering education in areas where formal schools were unavailable and where children were unable to attend formal schooling for various reasons. The NFBE model operates with fewer resources relying on the community to provide school buildings and manage the schools. NBFE schools were set up across the country in urban slums, small towns and far of villages. More specifically, these schools were set up to cater to two specific groups of children. Firstly, those who are unable to access formal schools due to long distances. Secondly, students hailing from slum areas, children of beggars, laborers and gypsies.

The key objectives of NFBE schools included universalizing primary education, adding community and NGO inclusion in educational process, promoting employment opportunities to educated persons etc. The target population for the NFBEs schools was children from dropouts of formal schooling in the age group 10 to 14 years. At the level of primary completion secondary period can last for 2-3 years. Children between the ages of 5 and 9 must complete primary education in a shorter time frame of 3 to 4 years, as opposed to the formal schools' standard of 5 to 6 years. In the implementation of the NFBE program, NGOs and community-based organizations have played a vital role. They identified suitable locations for schools, provided teaching aids and compensated teachers. These NGOs also arranged training for teachers, established parent-teacher committees at local levels and held meetings with teachers and communities (Jumani, Rahman & Bibi, 2011). Research indicated that many children attending NFBE schools come from challenging backgrounds. These children have no access to formal schools and often found living and working on the streets with minimal or no family support. Such children were commonly found in major urban centers, slums, shopping areas and small towns (Abbasi, 2013).

Formerly, various schemes and projects have been implemented throughout the country. As part of these efforts, a comprehensive five-year program has been established to promote education, skill development, and economic opportunities for illiterate individuals in jails and working in factories. Additionally, with the support of the Japan International Cooperation Agency (JICA), a literacy scheme titled "Model Districts for Literacy Campaigns to Achieve 100% Literacy" was launched in four districts of Punjab. This scheme was approved in 2004 and aimed to establish adult literacy centers, Non-Formal Basic Education (NFBE) centers in the districts of Khushab, Khanewal, Mandi Bahauddin and Dera Ghazi Khan in Punjab to achieve 100% literacy through awareness campaign (Government of Pakistan, 2007). Currently, the Punjab Non-Formal Education Project (PNFEP) operates under the Literacy and Non-Formal Basic Education Department throughout the province of Punjab. PNFEP is an amalgamation of six projects that were merged together. These projects were introduced to address the needs of vulnerable populations.

Table 2.1 illustrates the merged projects A to F into the Punjab Non-Formal Education Project, a significant initiative of the Literacy and Non-Formal Basic Education Department in the Government of Punjab since its establishment in 2002.

This department is tirelessly working to eliminate illiteracy and provide essential education to millions of children, adolescents, and adults in Punjab. By granting access to basic education and literacy skills, the department aims to empower disadvantaged individuals in the region. Although the literacy rate in Pakistan has been gradually increasing, there remain a considerable number of out-of-school children who have never been enrolled or have dropped out (Nariman & Sabir, 2019).

Table 2.1

Projects Merged into Single Project as PNFEPE

Sr. No.	Project name	Center name	Target centers	Students	Districts
A	Punjab workplace literacy project	NFBE schools (community learning centers)	1000 500	30000 10000	11 districts of south Punjab
B	Aao Parhain Project	Aao Parhain cemters Aao Perhain literacy centers Aao perhain primary schools	1040 25 143	208000 5000 5000	Illiterate women youth Illiterate government employees in Lahore Gypsies' student in Punjab
C	Tribal area literacy project	NFBEs Community learning centers for adults	70 120	2450 3000	DG Khan and RajanPur DG Khan and RajanPur
D	Community learning centers project phase 11	CLCs	60	1000000	In Sahiwal
E	Punjab literacy movement project	Functional literacy centers	6667	1000000	Punjab
F	Punjab accelerated Functional literacy & NFBEs project	NFBE Adult literacy centers Women volunteer centers	7284 1028 80000	283320 194120 80000	- - With collaboration of women development department

2.2.7 Effectiveness of Non-Formal Basic Education Schools

The effectiveness of a program can be measured in terms of achievement of its objectives. More specifically, the degree of success can be determined by comparing the set goals to the ones that were actually reached. The success of a program can be determined by how well it achieves its stated objectives and how well it serves its intended audience (Ahmed et al., 2013). As stated by Yasunaga (2014) measuring the success appears convoluted and complex but systems can be compared on their effectiveness with respect to meeting desired outcomes. To effectively provide primary education for marginalized children who are not enrolled in school, NFBES should

combine system-wide and tailored approaches. The effectiveness of NFBES is reflected through the findings of following empirical studies.

Jumani et al. (2011) assessed the performance of a Non-Formal Basic Education (NFBE) schools project titled “Model Districts for Literacy Campaigns to Achieve 100% Literacy” in the province of Punjab. Researchers surveyed 120 NFBE schools in four different Punjab districts, 500 students and their parents participated in the study together with 100 NFBE school educators and 20 NFBE school administrators. Data were gathered through surveys and interviews. The findings verified the success of project so far. Moreover, teachers were less satisfied with their jobs and the dropout rates were higher at NFBE schools.

Gull and Sarwar (2020) assessed the effectiveness of Non-Formal Schools (NFS) established, for provision of primary education to out of school children of disempowered and neglected segment of Punjab, Pakistan, under Punjab Non-formal Education Project of Literacy and Non-formal Basic Education (L&NFBE) Department, Government of the Punjab. The 100% target regarding establishment of schools were achieved and 33625 children were enrolled, as the target of enrolment was 19800 students. The enrollment was 61% more than the actual target. Analysis of achievement scores showed that 61% students achieved more than 33% marks in the test. Results indicated that achievement means score of male students was better as compared to female students. The achievement mean score of urban and rural students was almost same. Hence, it was concluded that the Non-Formal Schools were effective for provision of primary education to out-of-school children of disempowered and neglected segment of the society.

Bahar et al. (2018) conducted an experimental study on 52 middle school students who were engaged in athletic exercises in non-formal education. The results showed that students who participated in non-formal education activities had better work capacity than those who did not. Females in the experimental group had higher average score than the control group in various challenges while males in the experimental group showed improvement in their performance in different challenges.

The government of Nigeria has also applied both formal and non-formal strategies to reach its aim of ending illiteracy in the country. The formal education approach focuses on the children of school age (who are in schools) while the non-

formal education approach, which could also be called second chance education targets the children, youth and adults who have either never been to school or who dropped out before achieving permanent literacy. In the north, poverty and early marriage for females are major causes, whereas in the eastern states of Nigeria, some boys choose to skip their education in order to support their family by working as porters or in construction. In order to reach the MDGs, Nigeria employed both conventional and innovative approaches to educating its people. In a research study, Adewale (2015) evaluated the effectiveness of Nigeria's non-formal strategy for delivering basic education by measuring students' performance on life-skills accomplishment test. There were 876 total test takers involved in the study. Most students were below the national average in terms of their proficiency in basic life-skills. Those under the age of 30 and those living in the country had a better understanding of the topics than those over the age of 50.

2.2.8 Feasibility of Non-Formal Basic Education Schools

Policy Directive 1 (PC-1) of the Punjab Non-Formal Education Project requires a community to have 20 to 45 children who are not already enrolled in school before a non-formal school can be established there. These NFBE schools serve low-income children by offering accelerated education over the course of forty months. Forty months later, in grade 5, children attend exams administered by the Punjab Examination Commission (PEC). Fifth graders are expected to perform well in the PEC examination. Before moving on to secondary education, students must pass the Elementary Leaving Certificate Exam (PEC). Literacy programs are successful if learners are able to complete elementary school. Any location in Punjab approved by the Ministry of Education and Literacy and Non-Formal Basic Education can host literacy and NFE classes. Charitable organizations, high-child-labor regions, the workplace, industrial zones, brick kilns and public markets are all included in this category.

The children of low-income families benefit from NFBE schools because they provide them with basic education and the skills they need to succeed in life. Lack of a thorough academic examination of literacy initiatives may contribute to their failure. Any school with the aspiration of providing its students with a high-quality education must cultivate and maintain a strong community of financial and material supporters. Funding and supplies for the schools must be adequately allocated. It becomes evident

that there are large disparities in the supply of resources between Formal Primary Schools and Non-Formal Basic Education Schools.

Schools with adequate physical and educational resources, classrooms with necessary environment were analyzed by Ampiah (2011). Time spent on a task is a major predictor of academic performance and studies have shown that environmental factors also play an important role in this regard. The findings indicated that NFBES were equipped with sufficient physical resources and have an impact on students' academic achievement. Findings also showed that having enough textbooks can help educators make better use of their time in the classroom. Students' math scores were improved by fourth grade if they had access to essential school supplies including textbooks and notebooks etc.

Class size is not always associated with better students' performance however; it was reported that instructional characteristics like course length, students' nutrition programs, school activities, teachers' training, textbooks, instructional materials and students' academic achievement were particularly effective. The salary of the teachers was found to be a poor predictor of students' achievement. Therefore, it is vital to have a sufficient number of well-trained teachers to provide high-quality education. Here, indicators might include the percentage of teachers who meet or exceed national standards for their country and the average level of education among the educators (Milner, 2012).

2.2.9 Challenges Faced by the Teachers of NFBES

Teachers face a wide variety of challenges while working with NFBE students. Class size and teachers' workload were found to have a significant effect on students' learning by a study that assessed teachers' effectiveness based on their own opinions and behaviors in the classroom. This study was set out to compare the daily schedules of traditional and non-traditional elementary schools to explore if any notable differences could be identified. The significance of a teacher's influence on his students is highlighted by an analysis of the labeling theory. The ratio of pupils to teachers is sometimes used as a proxy for school quality (Bastos & Sá, 2011).

A case study of Ethiopia's pedagogical quality examined the beliefs and practices of elementary school teachers. A positive relation was found between school quality and rising enrollments whereas a negative correlation was found between

teacher quality and increased class sizes. There also seems to be a strong correlation between the number of classes a teacher was assigned and the academic achievement of their students (Bakx et al., 2015).

Taggart et al. (2015) explored that NFS still managed to give a high-quality education despite numerous obstacles. The researchers advocated greater in-service training and the recruitment of qualified teachers as well as assistance for families in meeting their basic needs. Moreover, findings showed that the most successful schools are those that routinely assess their students and have a large proportion of students from similar socioeconomic backgrounds.

Micheni (2015) conducted a descriptive study to determine the standard of NFS students, classrooms, curricula, teaching methods and learning results. Findings of research indicated that NFS students were in dire need of medical care, food and shelter as they were more likely to be insecure. Furthermore, inadequate physical facilities, & educational resources, less qualified teachers and school administrators were also identified as reasons why NFS performed poorly. It was also reported that NFS had continuous assessments of its performance and those assessments consistently showed that NFS was doing better than public schools in Nairobi County on the Kenya Certificate of Primary Education (KCPE).

Research conducted by Samuel and Atinuke (2019) indicated that NFBE has been poorly implemented due to a lack of suitable educational resources, school infrastructure and physical facilities. Findings determined the efficacy and suitability of logistical aid, pedagogical resources and building infrastructure. The research suggested that the government and stakeholders in Nigeria should work toward providing the educational resources and facilities necessary to implement the Universal Basic Education (UBE) program in schools.

Mridha (2021) conducted a qualitative study to identify challenges and prospects of non-formal education program of Bangladesh. Findings showed that family poverty, migration and environmental crime, were the main challenges for ensuring successful implementation of this program. About 90% of the students were from poor family background, 60% family migrated from rural to urban area, etc. Study also found that students of NFE program have less interest on getting proper education as family's

main focus is in earning money. Moreover, early marriage, and family violence was remarkable barriers for female students.

2.2.10 Challenges in Implementing Non-Formal Education

Despite its significance, managing non-formal education faces numerous challenges that can hinder its effectiveness. Whether it's the lack of infrastructure, untrained educators, or the absence of a clear curriculum, these issues can make non-formal education difficult to manage. Catherine (2011) explored factors influencing the implementation of NFE in non-formal schools of informal settlements of Nairobi Kenya. More specifically, the study endeavored to identify the challenges faced by NFE sector in non-formal primary schools of Mukuru Kwa Njenga informal settlements. The respondents were primary school heads of non-formal schools, teachers and students of NFSs. Among the challenges faced included inadequate academic and professional qualifications of teachers, teachers' turn over, teachers' attitudes, physical facilities and teaching learning materials on implementation of NFE.

Wabwoba (2011) conducted a research study to identify the factors influencing the implementation of non-formal education. The study was qualitative in nature, and the results showed that lack of financial resources, less qualified teachers, communication gap between teachers and students, and the learning environment could influence the implementation of non-formal education. Reference to the Pakistani context, Khan et al. (2023) identified challenges and reported that majority of respondents viewed that before opening NFBES, base line survey is conducted, teachers are hired after interview, Centre Kit and Learner Kit is provided. Induction and cluster training for teachers is arranged. 60% enrollment in NFBES is of girls and poorest segment of the society is enrolled to eliminate gender discrimination, poverty and to give equal access to free education. Midterm and promotional assessment is conducted. Low teachers honorarium, home based schools, single teacher for six classes and non-provision of non-formal elementary education are challenges to achieve SDGs.

Shahid et al. (2021) conducted content analysis of National Educational Policies and investigated that government strategies for Non-formal education programs are very effective, but there is a gap in implementing these practices Proper organizational structure, limited budgetary allocations, lack of awareness, decision making, and

political changes are the main gaps and issues indicated by the government in implementing the strategies in the Non-formal education sector.

2.2.11 Role of NFE in Scaling up Functional Literacy & Life Skills

The primary school years are essential because they build a child's educational foundation. Children poverty, infant mortality, gender inequality and environmental ignorance can be addressed by ensuring all children have access to a quality basic education (Hopkins et al., 2013). Key features of a non-formal school include instructional resources, classroom environment, teachers' expertise, and pedagogical approaches (Creemers & Kyriakides, 2010). The presence of physical facilities for the learning environment, such as a blackboard or whiteboard, chalk or board marker, chairs/benches, stationery, etc. can have a significant impact on students' success in the classroom (Chebii et al., 2012). Standardized test scores and other measures of students' cognitive growth were the focus of the vast majority of studies evaluating the efficacy of various educational programs. Bano (2018) explored that schools that routinely assessed their pupils had a higher rate of graduating successful students. Achievement tests in Urdu, English, Mathematics and elementary Science topics were administered to NFBEs for the purpose of this study.

Life skills are abilities that enable individuals to deal effectively with the demands and challenges of 21st century. However, to solve the personal and social issues, life-skills-based education is required to develop desired knowledge and skills. It is assumed that students learn skills in day-to-day activities. Life skills are activity-based education that are learned in literacy centres or are passed down from parents. The competency level of non-formal students is the same as that for the primary school students in the formal school setting. It is compulsory to assess the capability level of non-formal school students by their enactment in life-skills through achievement test for which the item analysis was carried out for Nigerian non-formal education students. The aptitude level in life-skills of the maximum students was less than the national benchmark (50%). Rural inhabitants were more skilled than urban inhabitants and fresh students were more skilled than old students (Rahmati et al., 2010).

Hiq et al. (2021) investigated efficacy of Non-Formal Education system regarding uplifting of life skills of illiterate adults in Dera Ghazi Khan, Pakistan. Results showed that trained teachers for adult literacy were more competent in

assessing the routine life of adult illiterates and their learning of life skill as well as their social development after getting training from Adult Literacy Centers (ALCs). Additionally, results showed that most of the learners were able to get life skills in ALCs which helped them to earn respectably. Most of the adult illiterates were able to read, write and learnt basic math skills which helped them to live a better life with literacy skills. Life skills were added in their life to earn with better way and they were also able to make good decisions regarding their financial matters.

2.3 Role of NFBES in Streamlining the Marginalized Community

Following empirical studies depict role of NFBES in streamlining marginalized Community groups;

Sud (2010) assessed how well NFES helped children of low-wage earners transition into traditional formal education in Jalandhar (Indian state of Punjab). Results of the study showed that marginalized children were effectively mainstreamed and retained in secondary education, thus making non-formal schools a viable alternative to traditional elementary schools. Furthermore, child labor schools were found to help low-income children in enrolling in schools and not in protecting them from forced labor.

Dang et al. (2011) investigated the efficacy of Reaching Out-of-School Children (ROSC) programs as well as its impact on students' academic performance. The results showed that students' schools had a minimal impact on their lives, whereas enrolment was higher at ROSC schools. Findings also showed that the best pupils in both ROSC and non-ROSC schools benefit academically from attending the school. Chebii et al. (2012) determined the effectiveness of community participation in ensuring the long-term viability of NFE programs in Cimahi city council, West Java, Indonesia.

Gloira et al. (2014) conducted an experimental study involving 52 middle school pupils. The study's overarching goal was to determine whether or not after-school program participants could more effectively raise their work capacity than non-participants. What makes this study unique was that in addition to their usual formal schooling, the pupils in the experimental group also participated in a non-formal education program consisting of two-hour weekly sessions of extracurricular sports activities. Both the initial and final test scores of each pupil were also collected and

analyzed. Results of the study indicated substantial differences in the work capacities of the two groups.

Widodo and Nusantara (2020) reported that traditional educational institutions and NFE schools work together to provide a well-rounded education. Children who thrive in a particular sport also showed increased levels of perseverance, self-control and sportsmanship, according to an analysis of NFE programs. Additionally, students in conventional educational settings may gain significantly from NFE in terms of their extracurricular activities and moral growth. There is a growing consensus that implementing an NFE program in schools is essential for promoting positive character in the youth.

In spite of its well-known challenges, Non-Formal Education (NFE) may be viewed as an effective policy solution for providing quality basic education for all in Tanzania, as investigated by Mbilu (2019). The research aimed at finding out if NFE programs and activities for school-aged children were effective in giving access to quality education. The study's theoretical foundation was the Social Reproduction Theory, which states that if NFE isn't of good quality, it will only serve to reinforce existing disparities. The belief that education of sufficient quality should be available to all people also had a significant impact on the research. Findings indicated numerous interrelated factors: inputs, process, context, and outcomes.

Ullah et al. (2021) conducted a quantitative survey in 100 NFBE schools in three districts of Punjab. This research aimed to explore the strategies and impact of NFBE schools on community. Random sampling technique was used to select the sample. Data were collected from officers, teachers, students and their parents. Results indicated that NFE system imparted cost effective, affordable, flexible, inclusive education at door step of deprived and marginalized community. Researchers recommended to allocate the more funds to scale up NFE system to cater the all OOSC

Punjab, the most populous province of Pakistan, faces a significant education deficit with approximately 9.6 million out-of-school children, as reported by the Literacy & Non-Formal Basic Education Department (L&NFBED) of Punjab in early 2025. These children include those who have never enrolled in school, dropouts, children with disabilities, those living in remote or slum areas, and children from minority or nomadic groups. Formal education systems have struggled to accommodate

these populations due to limited resources, rigid curricula, and socio-cultural constraints. Non-Formal Education programs in Punjab aim to fill this gap by providing flexible, community-based primary education targeting children aged 4 to 16 years who are excluded from formal schooling. The Punjab Non-Formal Education Project (Phase-II), launched with a budget of approximately PKR 7.5 billion, seeks to establish over 12,000 Non-Formal Basic Education Schools (NFBES) across 36 districts, targeting more than 555,000 out-of-school children. The programs emphasize inclusivity, focusing on girls, children with special needs, laborers, orphans, and other vulnerable groups (Iqbal, 2025).

Recent empirical studies underscore the positive impact of NFE programs in Punjab in improving literacy rates and providing educational opportunities to marginalized children. A quantitative survey conducted across 100 NFBE schools in three districts revealed that the system offers cost-effective, flexible, and inclusive education at the doorstep of deprived communities, significantly enhancing access for out-of-school children. The study found that NFE programs contributed to increased literacy and basic life skills, which in turn improved socio-economic conditions for learners and their families. Similarly, research involving data from five districts in Punjab demonstrated a statistically significant positive relationship between NFE program participation and literacy outcomes.

The study collected data from district education officers, literacy mobilizers, and other stakeholders, confirming that NFE initiatives have played a vital role in raising literacy levels and empowering marginalized populations. Respondents generally agreed that NFE programs are appropriate and beneficial for their communities, highlighting their role in socio-economic betterment. Moreover, the Punjab Literacy and Non-Formal Education Policy (PLNFEP) 2019 provides a comprehensive framework supporting the expansion and institutionalization of NFE programs. It aligns with Sustainable Development Goal 4 (SDG 4) to ensure inclusive and equitable quality education for all. The policy's vision of a "Literate, learning and prosperous Punjab" reflects the government's commitment to mainstreaming non-formal learners into formal education and enhancing community mobilization to promote education (Rafiq & Malik, 2024).

2.4 Summary

The literature typically traces the origins of Non-Formal Education in Punjab to as a response to the high dropout rates and the limitations of the formal education system, especially in rural areas. Programs like literacy classes, vocational training, and community-based education initiatives were developed to provide education to out-of-school children and adults. Despite the long history, research often points out the lack of sustained government investment and policy continuity. Many NFE programs have been ad hoc, and their impact tends to fluctuate with changing government priorities. There is a wide variety of NFE programs targeting different groups: out-of-school children, adults, women, and marginalized communities. These programs often focus on basic literacy, numeracy, vocational skills, and life skills, aligning with the broader education goals of improving literacy rates and socio-economic mobility. The reach of these programs is often limited due to logistical challenges, particularly in rural or underdeveloped areas. The literature also highlights how these programs, although numerous, tend to operate on a small scale and face challenges in maintaining enrollment and attendance.

Numerous research studies emphasized the importance of both governmental and non-governmental organizations (NGOs) in the success of NFE programs. Government initiatives like the Punjab Education Foundation and partnerships with NGOs have been seen as vital in expanding the scope of NFE. NGOs often bring innovative methods, resources, and grassroots mobilization strategies. However, there is often criticism of the lack of coordination between government bodies and NGOs. Programs may overlap, leading to inefficiencies, and sometimes government programs lack the community engagement and flexibility that NGOs bring. Moreover, a lack of integration between formal and non-formal systems undermines the long-term effectiveness of NFE initiatives. The curriculum of NFE programs is typically more flexible, focusing on practical skills that are immediately applicable, such as literacy, vocational training, and health awareness. This approach is seen as better suited to local needs, particularly in rural Punjab, where education often needs to be tailored to the socio-economic realities of the learners. The literature suggested that, in some cases, the curriculum is poorly developed or not aligned with national education standards. There are concerns about the quality of teaching, especially in remote areas, where educators

may lack formal training. Additionally, the pedagogy is sometimes seen as outdated or not reflective of modern educational practices.

Literature indicated that NFE programs have contributed significantly to improving literacy rates, especially among marginalized groups like women and rural populations. Programs that combine education with vocational training have been particularly successful in improving livelihoods and enhancing the employability of participants. However, the impact of NFE programs is often difficult to measure comprehensively. Many programs lack robust monitoring and evaluation systems, leading to challenges in assessing their true effectiveness.

CHAPTER 3

RESEARCH METHODOLOGY

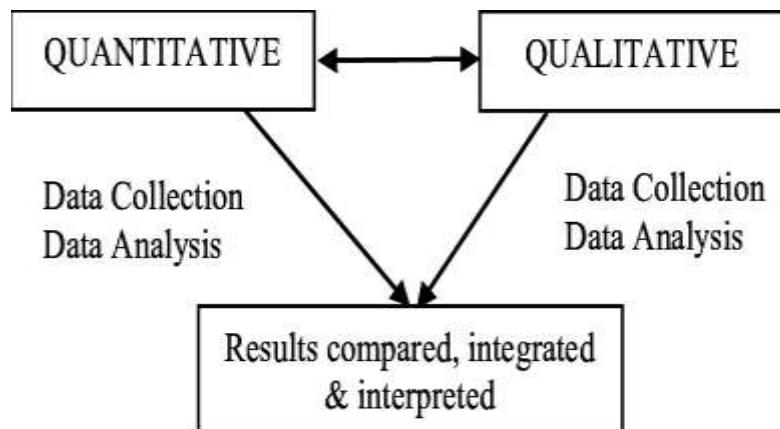
The research methodology is generally regarded as a critical component of any research study as it outlines the systematic approach used to answer the research questions in order to achieve the study's objectives. More specifically, the research methodology refers to the scientific and systematic process of collecting, analyzing and interpreting data to understand a particular phenomenon or problem. This chapter provides an overview of the research methodology employed in this study. Furthermore, this chapter includes details of the research design, population, sample & sampling techniques, instruments of data collection and data analysis procedures used in the study.

3.1 Research Design

Mixed methods approach following concurrent triangulation design was employed as it is the combination of qualitative and quantitative research approaches for achieving the breadth and depth of understanding and validation (Creswell & Clark, 2007). More specifically, this design involves a single study containing qualitative and quantitative data collection which is conducted at the same time. The purpose of this type of study is to validate the findings generated by each method through evidence produced by the other.

Figure 3.1

Concurrent Triangulation Design



This research approach was followed as the researcher aimed to validate or verify results from multiple data sources and methods to increase the validity of the research findings. Both types of data were collected at the same time, and the findings from each method were compared and integrated to draw more comprehensive conclusions.

3.2 Population

Considering five districts of South Punjab, population of the study comprised teachers of the Non-Formal schools, students enrolled in the Non-Formal schools, social mobilizers of the Non-Formal schools and five District Education Officers (DEOs). The detail is mentioned in Table 3.1

Table 3.1

Population of the Study

S. No.	Participants	Rahim Yar Khan	Muzaffargarh	Multan	D.G. Khan	Rajanpur	Population size
1.	Teachers of the non-formal schools	523	500	498	406	388	2,315
2.	Enrolled students of the non-formal schools	17529	16703	16570	13612	13010	77,424
3.	Social mobilizers of the non-formal schools	13	12	13	14	12	64
4.	District Education Officers (Literacy)	1	1	1	1	1	5

3.3 Sample and Sampling Technique

Proportionate stratified sampling technique was used to select the sample of 5% teachers and 1% students whereas 64 social mobilizers and five DEOs were selected using universal sampling technique (Gay, 2005). The total teachers were 2315 in the selected districts from which 116 teachers (5%) were included in this study. Moreover, the population of students was 77424 from which 774 students (1%) were included in the study.

3.3.1 Steps involved in Proportionate Stratified Random Sampling

1. Define the Population and Strata:

- Identify the entire population from which the sample will be drawn.

- In this study, the populations are teachers and students distributed across five districts (strata): Rahim Yar Khan, Muzaffargarh, Multan, D.G. Khan, and Rajanpur.
- Each district acts as a separate stratum because the population characteristics may vary between districts.

2. Determine the Total Sample Size (n):

- Decide on the overall sample size based on the research requirement.
- 5% sampling for teachers and 1% for students was decided in this study
- For teachers: Total population (N) = 2315, so n = 5% of 2315 = 116.
- For students: Total population (N) = 77424, so n = 1% of 77424 = 774.

3. Calculate the Proportionate Sample Size for Each Stratum:

- Calculate the sample size that should be drawn from each stratum based on their proportion of the total population.
- Use the formula: $n_h = \frac{N_h}{N} \times n$

Where:

n_h = sample size for stratum h (each district)

N_h = population size in stratum h

N = total population size across all strata

n = total sample size

Example for teachers in Rahim Yar Khan: $n_{RahimYarKhan} = \frac{523}{2315} \times 116 \approx 27$

4. List the Sampling Frame for Each Stratum:

- Compile complete lists of individuals (teachers and students) available in each district.

5. Use Random Sampling Within Each Stratum:

- From the lists for each district, I had selected the calculated number of individuals randomly.

- This ensures every individual within a stratum has an equal chance of being selected.

4. Combine the Samples from All Strata:

- Aggregated the randomly selected individuals from all the districts for the final sample.

5. Apply Universal Sampling for Certain Groups:

- For the social mobilizers (64) and DEOs (5), use universal sampling (i.e., include all).
- This was because their total number were manageable and each participant was important for the study.

The table 3.2 presents the sample size for the given population size according to Gay (2005, p. 125);

Table 3.2

Sample of the Study

S. No.	District Name	Teachers	Students	Social Mobilizers	DEOs
1.	Rahim Yar Khan	27	175	13	1
2.	Muzaffargarh	25	167	12	1
3.	Multan	25	166	13	1
4.	D.G. Khan	20	136	14	1
5.	Rajanpur	19	130	12	1
Total		116	774	64	05

Referring to the teachers' population, there were 523 teachers in the district Rahim Yar Khan from which 27 teachers were included in the study; 500 teachers in the district Muzaffargarh from which 25 teachers were included. Similarly, there were 498 teachers in the district Multan from which 25 teachers were included; 406 teachers in district Dera Ghazi Khan from which 20 teachers were included while in the district Rajanpur there were 388 teachers from which 19 teachers were included in this study.

Likewise, there were 17529 students in the district Rahim Yar Khan from which 175 students were included in the study; 16703 students were in the district

Muzaffargarh from which 166 students were included in the study. Moreover, in district Multan there were 16570 students from which 166 students were included in the study; 13612 students were in the district D.G. Khan from which 136 students were included; 13010 students were there in the district Rajanpur from which 130 students were included in the study.

For conducting semi-structured interviews (qualitative data), 10% of total teachers (12), while 20% of social mobilizers (12) and all five DEOs were selected as sample of study; as referred by Fugard and Potts (2015) to attain the saturation point for qualitative data.

3.4 Research Instruments

For achieving the objectives of the study and collecting relevant data both quantitative (questionnaires) and qualitative (interview guide) instruments were developed by the researcher. Detail is mentioned in subsequent sections;

Table 3.3

Research Instruments of the Study

Participants	Research Instruments
Teachers	Questionnaire
	Semi-structured interview
Social Mobilizers	Questionnaire
	Semi-structured interview
District Education Officers	Semi-structured interview

Questionnaires are widely used in educational research to collect data about the topic under study. This is because they are cost-effective, reasonably simple to use and can provide researchers with a huge quantity of data in a relatively shorter period of time (Patten, 2014). As with any method of data collection, questionnaires have their drawbacks. Supposing that the questionnaire has been cautiously designed and aligned to the central research question(s), their main weaknesses are that they do not provide the same nuanced level of detail that an interview or focus group can, nor do they allow for serendipity; the asking of a pertinent question that may arise in the researcher's mind during an interview or focus group (Holmes, 2023).

The semi-structured interview is a method of research commonly used in education. Magaldi and Berler (2020) defined the semi-structured interview as an exploratory interview. The semi-structured interview is generally based on a guide and that it is typically focused on the main topic that provides a general pattern. A thematic or topic-centred, biographical, or narrative approach where a researcher has a number of themes or topics, issues to cover, or a set of starting points for discussions could be one of these kinds. With this approach, a researcher is unlikely to have a complete or sequential script of questions. As it has been well known, qualitative interviews are mostly designed to have a flexible pattern. This allowed researcher and respondents to develop unpredictable themes alongside interviews. Usage of semi-structured interview was preferred over structured interview because it allowed the researcher to explore the opinions and ideas of the respondents, as well as probe deeper into their answers for additional information and clarification.

3.4.1 Development of Questionnaires

The questionnaires were self-developed on five point Likert scale after in-depth review of literature and discussion with the educationists and experts with particular reference to effectiveness and challenges of Non-Formal Education programs in Punjab. Details of each instruments is given below;

3.4.1.1 Questionnaire for Teachers

It included three sections: demographic information, streamlining and marginalizing and scaling up functional literacy (Appendix D). Streamlining and marginalizing indicator included five items relevant to the role of NFBES in streamlining the marginalized community as envisaged in literature review (pg no 33-34). Furthermore, the indicator scaling up functional literacy included five questions relevant to the role of NFE in scaling up functional literacy (pg no 32-33).

3.4.1.2 Questionnaire for Social Mobilizers

It included three sections: demographic, information, difficulties in the establishing NFBE Schools and streamlining and marginalizing. (Appendix C). More specifically, the indicator titled “Challenges in Establishing NFBES” included eight items relevant to the challenges in in implementing Non-Formal Education as envisaged in literature review section (pg no 31-32).. The indicator titled “Streamlining

and Marginalizing” included four items as envisaged in literature review section (pg no 33-34). Framework of quantitative data collection tools is as follows:

Table 3.4

Framework of Quantitative Data Collection Tools

Respondent	Sections of Questionnaire	Indicators / Constructs	No. of Items	Scale Used	Purpose
Teachers	Demographic Information	District	5	Nominal	To collect background data
		Gender			
		Department Name			
Social Mobilizers	Streamlining and Marginalizing	Qualification			
		Professional Qualification			
		School Location			
Social Mobilizers	Scaling up Functional Literacy	School Code			
		Current Enrollment			
		Enrolled Students			
Social Mobilizers	Demographic Information	Dropout students			
		How many students were streamline			
		Role of NFBES in mainstreaming marginalized groups	5	5-point Likert	To measure teachers' perceptions
Social Mobilizers	Challenges in Establishing NFBE Schools	Role of NFE in enhancing literacy	5	5-point Likert	To measure teachers' perceptions
		Qualification	4	Nominal	Background info
		Number of Social Mobilizing			
Social Mobilizers	Streamlining and Marginalizing	Trainings Attended			
		Total Allocated Schools			
		Current Enrollment in your allocated schools			
Social Mobilizers	Challenges in Establishing NFBE Schools	Implementation barriers	8	5-point Likert	To identify challenges
		Role of NFE in social inclusion	4	5-point Likert	To measure perceptions

3.4.1.3 Semi-structured Interview for Teachers, Social Mobilizers & DEOs

Interview guide was developed by the researcher for collecting qualitative data from the respondents i.e. teachers, social mobilizers and DEOs with reference to the challenges and challenges they have faced while executing NFE programs. Researcher has followed five phases for designing interview guides as suggested by Kallio et al. (2016): identify the prerequisites for conducting a semi-structured interview, utilize previously acquired knowledge, design a preliminary semi-structured interview guide, pilot test the prepared guide, present the completed semi-structured interview guide. Details of the respective interview questions are discussed below;

- a) Interview Questions for Teachers** included 10 questions relevant to indicators; role of NFE in streamlining & marginalizing, and scaling up functional literacy. (Appendix) Moreover, these were designed in the context of literature review section (pg no 32-34).
- b) Interview Questions for Social Mobilizers** included 11 questions relevant to challenges in establishing new schools (Appendix) Moreover, these were designed in the context of literature review section (pg no 30-32).
- c) Interview Questions for DEOs (Literacy)** included 17 questions relevant to challenges in establishing new schools (Appendix). Moreover, these were designed in the context of literature review section (pg no 27-34)

3.4.2 Validity of Research Instruments

Validity refers to the extent to which an instrument measures what it is intended to measure. There are several types of validity relevant to questionnaire assessment, including face validity, content validity, construct validity, statistical validity, as well as internal and external validity (Leavy, 2017). According to Creswell and Creswell (2018), content validity is particularly important in survey research, as it ensures that the items on the questionnaire adequately represent the content domain of the construct being measured. Content validity evaluates whether the questions comprehensively cover the topic under investigation and are appropriate for the target population. Overall, establishing validity is essential to determine whether the questionnaire is suitable and reliable for gathering accurate data.

To ensure the content validity of the research instruments, a systematic validation process was followed. First, the draft questionnaires were reviewed by a panel of experts consisting of District Education Officers (DEOs), university professors specialized in education research, and experienced teachers from Non-Formal Education (NFE) schools. These experts carefully evaluated each item for relevance, clarity, and coverage of the intended content. Based on their constructive feedback and recommendations, some questions were removed due to redundancy or irrelevance, the sequence of certain items was reorganized to improve logical flow, and wording of some questions was rephrased for better clarity and precision. Subsequently, the revised questionnaires were again circulated among university professors and the thesis supervisor for further critical review. Following their additional suggestions, minor refinements were made to ensure completeness and appropriateness. Finally, the instruments were approved and finalized with the supervisor's endorsement, confirming that the questionnaires possess strong content validity and are fit for use in this study.

Table 3.5

Content Validity Index

Sr.	Experts	No of Experts
1	University Teachers	5

To quantify content validity, a panel of subject-matter experts rated each item for relevance on a four-point scale (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant). Following Lynn (1986) and Polit & Beck (2006), ratings of 3–4 were coded as “relevant.”

- Item-level CVI (I-CVI):

I-

$$\text{CVI} = \frac{\text{number of experts rating the item 3 or 4}}{\text{total number of experts (N)}} \\ \text{CVI} = \frac{\text{number of experts rating the item 3 or 4}}{\text{total number of experts (N)}} \times 100$$

$$\text{CVI} = \frac{\text{total number of experts (N)}}{\text{number of experts rating the item 3 or 4}} \times 100$$

- Scale-level CVI (S-CVI/Ave): average of all I-CVIs across items.
- Scale-level CVI (S-CVI/UA): proportion of items with universal agreement (I-CVI = 1.00).

Decision rules (Lynn; Polit & Beck):

For $N = 6-10$ experts, retain items with $I-CVI \geq 0.78$; revise items with $0.70-0.77$; drop items with < 0.70 . A scale is considered to have excellent content validity when $S-CVI/Ave \geq 0.90$.

Researcher also computed the modified kappa (k^*) to adjust $I-CVI$ for chance agreement:

$$pc = (NA) \times 0.5N, k^* = I-CVI - pc1 - pcp_c = \frac{\binom{N}{A} \times 0.5^N}{\frac{\text{I-CVI} - p_c}{1 - p_c}} pc = (AN) \times 0.5N, k^* = 1 - pcI-CVI - pc$$

where AAA is the number of experts who rated the item as relevant (3-4). Interpretation: $k^* \geq 0.74$ = excellent, $0.60-0.73$ = good, $0.40-0.59$ = fair.

Five subject-matter experts ($N = 5$; names and credentials listed in Appendix E) independently rated each questionnaire item for *relevance* using a 4-point scale (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant). Ratings of 3 or 4 were counted as “relevant.”

- Item-level CVI ($I-CVI$) = A / N (A = number of experts rating 3-4).
- Scale-level CVI ($S-CVI/Ave$) = average of item $I-CVIs$.
- $S-CVI/UA$ = proportion of items with universal agreement ($I-CVI = 1.00$).
- Modified kappa (k^*) to adjust $I-CVI$ for chance agreement using:

$$pc = (NA) \times 0.5N, k^* = I-CVI - pc1 - pcp_c = \frac{\binom{N}{A} \times 0.5^N}{\frac{\text{I-CVI} - p_c}{1 - p_c}} k^* = \frac{\text{I-CVI} - p_c}{1 - p_c}$$

Teachers' questionnaire (10 items)

expert agreement counts used below: 7 items received A = 5/5, 3 items received A = 4/5.

$S-CVI/Ave = 0.94$

$S-CVI/UA = 7/10 = 0.70$

Table 3.6*CVI of Teachers' Questionnaire*

Item A (of 5) I-CVI p_c (= C(5,A)*0.5^5)				k*	Decision (recommendation)
T1	5	1.00	0.03125	1.000	Retain (excellent)
T2	5	1.00	0.03125	1.000	Retain
T3	5	1.00	0.03125	1.000	Retain
T4	5	1.00	0.03125	1.000	Retain
T5	5	1.00	0.03125	1.000	Retain
T6	5	1.00	0.03125	1.000	Retain
T7	5	1.00	0.03125	1.000	Retain
T8	4	0.80	0.15625	0.764	Revise / clarify wording; consider re-check
T9	4	0.80	0.15625	0.764	Revise / clarify wording; consider re-check
T10	4	0.80	0.15625	0.764	Revise / clarify wording; consider re-check

Three items (T8–T10) had slightly lower agreement (4 of 5 experts). Although I-CVI = 0.80 and k* ≈ 0.764 (which is in the “excellent” k* range), Lynn’s conservative recommendation for N = 5 is to aim for full agreement; therefore, these items were revised based on expert comments and reworded before field administration.

Table 3.7*CVI of Social Mobilizers' Questionnaire*

Expert agreement counts used below: 9 items A = 5/5, 2 items A = 4/5, 1 item A = 3/5.

S-CVI/Ave = 0.9333... (≈ 0.93)

S-CVI/UA = 9/12 = 0.75

Item	A (of 5)	I-CVI	p_c	k*	Decision (recommendation)
S1	5	1.00	0.03125	1.000	Retain
S2	5	1.00	0.03125	1.000	Retain
S3	5	1.00	0.03125	1.000	Retain
S4	5	1.00	0.03125	1.000	Retain
S5	5	1.00	0.03125	1.000	Retain
S6	5	1.00	0.03125	1.000	Retain
S7	5	1.00	0.03125	1.000	Retain
S8	5	1.00	0.03125	1.000	Retain
S9	5	1.00	0.03125	1.000	Retain
S10	4	0.80	0.15625	0.764	Revise wording; consider re-check
S11	4	0.80	0.15625	0.764	Revise wording; consider re-check
S12	3	0.60	0.31250	0.418	Revise substantially or drop

One item (S12) had only 3/5 experts rating it relevant (I-CVI = 0.60; $k^* \approx 0.418$), suggesting fair agreement only. Recommend either rewording that item (incorporating expert comments) or removing it. Two other items (S10, S11) had 4/5 agreement: $k^* \approx 0.764$ (excellent by k^*),

Overall, the two instruments show strong content validity by S-CVI/Ave (Teachers = 0.94; Social Mobilizers = 0.93), both above the commonly accepted 0.90 threshold for excellent scale-level content validity. S-CVI/UA is moderate (Teachers = 0.70; Social Mobilizers = 0.75) because universal agreement is a strict criterion for small panels. mItem-level review: the majority of items reached universal agreement (I-CVI = 1.00). A small number of items had 4/5 agreement (I-CVI = 0.80; modified $k^* \approx$

0.764) and one item in the mobilizers' scale had lower agreement ($I-CVI = 0.60$; $k^* \approx 0.418$). Those items were revised per expert comments (or removed), and the final instruments used in the field reflect those revisions. Cronbach's α (reported separately) confirmed internal consistency after content adjustments (Teachers $\alpha = 0.726$; Mobilizers $\alpha = 0.720$).

3.4.3 Pilot Testing

The pilot testing is basically a copy and trial of the main survey. The goal of pilot study is to identify any flaws in the research instrument. It is concerned with whether the respondents decode the information intended to be measured very well before administering it to a larger sample to avoid wastage or to reduce number of items. The main benefit of pilot testing is that it allows the researcher to identify problems before launching the final survey. Hence, the purpose of pilot testing is to determine the reliability as part of the validity for of each question. Items with poor reliability are removed at this stage (Kimberlin & Winterstein, 2008).

The questionnaires were pilot-tested on a sample of 10 teachers and three social mobilizers of Non-Formal Education programs. This sample size, though small, aligns with common recommendations for pilot studies in survey research, where preliminary testing typically involves a manageable group representing the study population to efficiently detect major issues. Specifically, testing with at least 10 participants for teachers is considered sufficient to calculate internal consistency reliability (e.g., Cronbach's alpha) as it provides an initial estimate of item homogeneity without excessive resource use. The inclusion of 3 social mobilizers, while limited, was practical given their smaller population and aimed to ensure the instrument's clarity and relevance for this group. The data obtained from this pilot study were used to refine the language and structure of statements for better clarity and comprehension by respondents. This process helped ensure that the finalized questionnaire would yield reliable and valid data in the main study.

3.4.4 Reliability of Research Instruments

Reliability refers to the consistency of the results. Cronbach's alpha is the most common form of reliability to check the internal consistency of questionnaire (Leavy, 2017), which measures the degree to which items behave in the same way (Creswell &

Cresswell, 2018). Cronbach's alpha depends on the number of items and their average intercorrelation. Therefore, a high Cronbach's alpha value may indicate high reliability. However, it also may indicate that the answers may affect each other as respondent might remember the previous answer and try to be consistent. Meanwhile, a low value may indicate low reliability, which may also be interpreted as not measuring the same constructs (Willis, 2020). The researcher pre-tested the research instruments namely questionnaire for teachers and questionnaire for social mobilizers and internal reliability of each questionnaire was calculated by Cronbach's Alpha. The reliability coefficients for each of the questionnaires were shown in table 3.4 and table 3.5 respectively;

Table 3.8

Reliability Statistics of Teachers' Questionnaire

S.No	Indicators of Teachers' Questionnaire	Cronbach's Alpha	No of Items
1.	Streamlining and Marginalizing	.748	5
2.	Scaling up Functional Literacy	.704	5
Overall		.726	10

For the indicator; streamlining and marginalizing the Cronbach's Alpha was .748 suggesting the acceptable level of internal consistency among the five items. This indicates that the scale items in this category are reasonably reliable in accessing the views of teachers about streamlining and marginalizing. Moreover, for the indicator: scaling up functional literacy, Cronbach's Alpha was .704 which showed that the items are reliable in accessing the teachers' views about scaling up functional literacy on five items. The overall Cronbach's Alpha coefficient of teachers' questionnaire was .726 indicating acceptable level of internal consistency among 10 items of respective indicators.

Table 3.9*Reliability Statistics of Social Mobilizers' Questionnaire*

S.No	Indicators of Social Mobilizers' Questionnaire	Cronbach's Alpha	No of Items
1.	Challenges in Establishing NFBES	.700	8
2.	Challenges in Streamlining and Marginalizing children in NFBES	.741	4
	Overall	.720	12

There were two aspects of NFE which were asked from social mobilizers one was the difficulties the face in establishing NFBES and the other was what challenges they face in streamlining and marginalizing children in NFBES. For the indicator; challenges in establishing NFBES, the Cronbach's Alpha was .700 which indicated the moderate level of internal consistency among the eight items. This further implies that the items in this category are reasonably reliable in accessing the views of social mobilizers about challenges in establishing NFBES. The indicator; challenges in streamlining and marginalizing children in NFBES also displayed moderate level internal consistency with Cronbach's Alpha of .741. This also implies that the items in this category are reasonably reliable in accessing the social mobilizer's views about streamlining and marginalizing on four items. Overall Cronbach's Alpha coefficient of the questionnaire was .720 indicating acceptable level of internal consistency among 12 items.

3.4.5 Trustworthiness of Qualitative Data

In order to ensure the trustworthiness of qualitative data, the researcher adopted Lincoln and Guba's (1985) framework consisting of credibility, transferability, dependability, and confirmability. Credibility was enhanced through prolonged engagement with participants, member checking, and peer debriefing with experts. Transferability was addressed by providing thick descriptions of the research context and participants. Dependability was maintained by keeping an audit trail of methodological decisions and data analysis procedures. Confirmability was ensured through reflexivity and the use of direct participant quotations to substantiate

interpretations. These strategies strengthened the authenticity and rigor of the qualitative findings.

3.5 Data Collection (Procedure)

Questionnaire surveys are a valuable technique for gathering information from respondents in a range of situations, including self-reported outcomes in educational research. Research mostly utilize surveys as a measuring tool as these are frequently used to assess more sophisticated and varied human behaviours or qualities, referred to as constructs. Because they are complicated and varied, they are better assessed by asking a series of linked questions about various facets of the construct of interest. Individual replies to these questions can then be used to generate a score or scale measure along a continuum (Imasuen, 2022).

In this study, the data were collected from teachers, social mobilizers and District Education Officers through personal visits of the researcher by using questionnaires and semi-structured interviews. Moreover, the five years (2019-2023) result of PEC students of major subjects (Science, English, Mathematics) were also analysed from five districts of South Punjab. Overall, response rate was 100%.

Firstly, permissions were obtained from Government Literacy & Non-Formal Basic Education Department to conduct the study in this area of project. After taking the departmental permission, in the first phase the data were collected from DEOs, social mobilizers and teachers from Muzaffargarh and Dera Ghazi Khan districts respectively. The researcher visited the office of DEOs of both districts and interviewed them, PEC results of students were also collected from the DEOs office, and then the researcher went into the field to collect the data from social mobilizers and teachers. Teachers and social mobilizers were also interviewed individually to collect the data. Before conducting interviews, DEOs, social mobilizers and teachers were briefed about the purpose and objectives of the study and they were requested to cooperate and give their written consent to participate in the study. This procedure took near about one month. In the second phase, the data were collected from Rahim Yar Khan and Rajanpur districts with the similar procedure of first phase, this procedure also took about one month to complete. In the third phase, the data were collected from Multan district; this procedure also took about one month to complete (Table 3.6).

The interviews were audio-recorded with participant permission to guarantee a complete transcript. During all interviews, handwritten notes were also collected, allowing the researcher to keep track of critical points to return to later in the interview.

Table 3.10

Timeline showing duration of data collection

Phase	Districts	Timeline/Duration
I	Muzaffargarh	July-August 2023
	Dera Ghazi Khan	
II	Rahim Yar Khan	September-October 2023
	Rajanpur	
III	Multan	November-December 2023

Following challenges were faced by the researcher during data collection;

As majority of social mobilizers and teachers of NFBES belonged to rural areas so they misinterpreted questionnaire statements. Therefore, researcher spent more time to explain the meaning and related concepts for their better clarity and understanding. Additionally, the researcher translated the questionnaire statements into the native language of respondents (Urdu) to ensure clarity, better comprehension, and accurate responses. The translation process involved careful adaptation of terms to maintain the conceptual meaning of each statement. To ensure linguistic accuracy and content validity, the translated version was reviewed by language experts and educationists. A back-translation method was also employed, where the Urdu version was translated back into English by an independent expert to check for consistency with the original version. Any discrepancies were resolved through discussion with subject specialists, ensuring that the instrument retained both its semantic and conceptual equivalence. While conducting semi-structured interviews, researcher also explained interview questions to the respondents (social mobilizers, teachers & DEOs) into their native language. Hence, it took more time to collect the qualitative data.

3.6 Data Analysis

Quantitative data from the questionnaires were analyzed using descriptive statistics such as frequencies, percentages and mean scores. Moreover, in order to interpret the results, mean scores range given by Oxford (1990) was followed which indicated that if the mean score value is from 1.0 to 2.4 it indicated that respondents disagreed with the given statements, if the value of mean score is within the range of 2.5 to 3.4, it reflected they moderately agreed with the given statements and if the value of mean score is around 3.5 to 5.0, then it means that respondents agreed with the given statement. Furthermore, inferential statistics, including correlation, t-test and ANOVA were used to compare average scores between groups.

Qualitative data from the semi-structured interviews were analyzed using thematic analysis to identify relevant themes. Thematic analysis is an accessible, flexible and most popular method of qualitative data analysis. More specifically, this study has followed inductive approach of thematic analysis which involves the data to determine themes. It is a method for systematically identifying, organizing, and offering insight into, patterns of meaning (themes) across a dataset (Braun & Clarke, 2012 as cited in Caulfield, 2023). There are six phases in thematic analysis i.e. (a) familiarizing yourself with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing potential themes, (e) defining and naming themes, (f) producing the report. The study identified common themes (repetition) where similarities as well as differences were identified.

Coding process followed five distinct phases. These phases involve using attribute coding to organize the data; topic coding to bound the inquiry; open/initial coding to identify patterns and themes in the data; memoing to develop findings from those themes; and examining the findings using codes developed from the existing literature , in order to explain the findings, and situate the findings in the literature (Bingham, 2023).

Table 3.11*Objectives, Research Questions/, Null Hypotheses, Data Source & Data Analysis*

Objectives	Research Questions/ Null Hypotheses	Data Source	Data Analysis
Examine the effectiveness of Non-Formal Education programs in streamlining the marginalized students and scaling up functional literacy level in Punjab.	1. How effective are the Non-Formal Education programs in providing safe, non-violent, inclusive and effective learning environments? 2. How effective are the Non-Formal Education programs in streamlining the marginalized students? 3. How effective are Non-Formal Education programs in scaling up functional literacy for the students?	Interview from DEOs	Thematic Analysis
Explore the role of Non-Formal Education Programs in developing technical and vocational skills among students.	4. What is the role of Non-Formal Education programs in developing vocational and technical skills among students?	Interview from DEOs, teachers & social mobilizers	Thematic Analysis
Analyze the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab.	5. What are the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab?	Questionnaire & Interview from teachers	Descriptive statistics & Thematic Analysis
Find out the relationship between achievement levels of students of Non-Formal Education Schools for the subjects; English, Mathematics and Science.	H_{01} There is no significant relationship in the achievement of students in different subjects. .	Interview from DEOs	Thematic Analysis
Compare the achievement level of students for the subjects English, Mathematics and Science regarding gender, district and year.	H_{02} There is no significant difference in the achievement of male and female students. H_{03} There is no significant difference in the achievement of students from 2019-2023. H_{04} There is no significant difference in the achievement of students among different districts.	PEC results	t-test
Find out the relationship between “streamlining and marginalizing” and “scaling up functional literacy”.	H_{05} There is no significant relationship between “streamlining and marginalizing” and “scaling up functional literacy”.	PEC results	ANOVA
		Questionnaire	Correlation

3.7 Ethical Considerations

The researcher has followed the code of research ethics particularly those recommended by the university and the department. The most important one is giving proper credit to the author of idea/opinion, which quoted in the text. Another important ethical consideration relates to the respondents of the study. The identity of the respondents was not being disclosed and proper codes were used to report their responses. Moreover, the data given by the respondents were not used other than the research purposes. The physical, social and cultural safety of the respondents was ensured at every step.

3.8 Summary

Mixed methods approach following concurrent triangulation design was appropriate for this study as the researcher aimed to verify the results from multiple data sources and methods to increase the validity of the research findings. Moreover, quantitative and qualitative data were collected at the same time. Research instruments included questionnaires and semi-structured interviews which were developed by the researcher after in-depth review of literature and discussion with the educationists and experts with particular reference to effectiveness and challenges of Non-Formal Education programs in Punjab. Questionnaires were considered as they were cost-effective and reasonably simple to use. Usage of semi-structured interview was preferred because it allowed the researcher to explore the opinions and ideas of the respondents, as well as probe deeper into their answers for additional information and clarification.

In order to ensure the validity of the research instruments, experts' opinion was sought and in the light of their feedback and suggestions, some questions were removed, sequences of some questions were changed, and some questions were rephrased. Reliability was ensured through Cronbach's Alpha coefficient that indicated acceptable level of internal consistency. The data were collected from teachers, social mobilizers and District Education Officers through personal visits of the researcher by using afore mentioned instruments. As majority of respondents belonged to rural areas so they misinterpreted questionnaire statements and interview questions. Therefore, researcher spent more time to explain the meaning and related concepts for their better clarity. Additionally, researcher translated the respective statements into the native language of respondents. Overall data collection was completed in six months' duration.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATIONS

This chapter presents data analysis and interpretation which highlighted the effectiveness and challenges of non-formal education programs in selected districts of Punjab, Pakistan. This chapter is crucial as it provides evidence-based insights to address the research objectives and answer the central research questions. This data holds significant importance, as it can inform policymakers, education practitioners and other stakeholders on the current state of non-formal education in the region and guide future interventions to strengthen this parallel education system. The data analysis process involved a mixed-methods approach combining quantitative and qualitative techniques to achieve a comprehensive understanding of the topic. Questionnaires were administered for teachers, social mobilizers and District Education Officers to assess the achievement levels of students and the effectiveness of non-formal education programs in streamlining marginalized children. The challenges were faced in establishing new schools and enrolling students. Structured and semi-structured interviews were also conducted to explore the effectiveness of non-formal education projects. The role of these programs in enhancing literacy rates and the challenges were encountered by various stakeholders.

This chapter offers the analyzed data from both the quantitative and qualitative methods. The quantitative data have been summarized using descriptive statistics such as frequencies, percentages, means and standard deviations to provide a clear picture of the current state of non-formal education programs. The qualitative data, obtained through the interviews, have been analyzed using thematic analysis to identify relevant themes and patterns that shed light on the effectiveness and challenges of these programs. The chapter has been organized into key themes that address the research objectives including the challenges in establishing non-formal education schools and the effectiveness of these programs in streamlining and integrating marginalized children. The overall effectiveness of non-formal education initiatives the development of vocational and technical skills and the scaling up of functional literacy programs. These results serve as a foundation for the subsequent discussion and recommendations put forth in the final chapters of the thesis. This chapter has been divided into two major section: quantitative data analysis and qualitative data analysis.

4.1 Quantitative Data Analysis

This section is based on nine major themes; brief description of theme is as follows:

- 4.1.1 Demographic information of respondents,
- 4.1.2 Role of non-formal education programs in streamlining the marginalized students,
- 4.1.3 Role of non-formal education programs in scaling up functional literacy, and
- 4.1.4 Challenges faced for the establishment of NFE schools.
- 4.1.5 Relationship in the Achievement of Students
- 4.1.6 Difference in the achievement of male and female students
- 4.1.7 Difference in the achievement of students among different districts
- 4.1.8 Difference in the achievement of students from 2019-2023
- 4.1.9 Relationship between “streamlining and marginalizing” and “scaling up functional literacy”

Detailed data analysis is as follows:

4.1.1 Demographic Information of Respondents

The distribution of respondents across the districts appears to be reasonably well selected with the most from Rahim Yar Khan (23%) and the least from Rajanpur (17%). The gender composition of the sample indicates the presence of a large number of female teachers (87.1%) which underscores the prevalence of women in teaching in the context of the study. With regards to education, a significant number of the respondents, 59.5 percent, held a Bachelor's degree while the rest 40.5 percent were Masters, indicative of a gap in professional development needs. In addition, the results show that rural schools were more in proportion to urban school (61.2%) than were urban schools (38.8%), which supports the focus of the study on the educational dynamics in rural areas.

The data reveal some key disparities in training participation, school allocation, and student enrollment among the social mobilizers. A considerable number of the social mobilizers (39.1%) had never attended any training, while others had a degree of participation; only a few received more intense training (up to 20 sessions). The allocation of schools also was quite different: while 31.3% of the social mobilizers handled 140 schools, others had a much lower number of institutions to handle.

Distribution of the allocations in rural and urban schools did follow the above trend; most social mobilizers deal with between 10 to 20 schools. About student enrollment, 31.3% of social mobilizers handled a supervision of 2,500 male students, while others have about 1,500 to 3,480 students. These results reflect imbalances in the provision for training as well as the sharing of workload which would affect the performance of the social mobilizers.

The result shows a gender imbalance in the DEOs' composition, with males constituting 80% of the sample. Social mobilizers reported inconsistent participation in trainings, with 40% not attending any. Training of DEOs varies and has differed from 4 to 8 sessions. There is a gradual increase in students enrolled within the years 2019 up to 2023, however, a trend towards higher enrollment levels recently. Most target schools have enrollments in the lower ranges (up to 600 students), though a few exceed 1000. The number of ongoing projects in districts varied, with most DEOs overseeing four or five projects. Field staff sizes ranged from 12 to 18, while office staff varied significantly, from 3 to 18 members. Dropout trends remained relatively stable, with higher concentrations in the smallest and largest enrollment ranges. The distribution of streamlined students showed that there was significant representation in every size category during the years with consistency. Data overall indicates improved student enrollment while pointing out necessary targeted interventions such as dropout, training participation disparities, and differences in resource dispensation among teachers (Appendix H).

4.1.2 Role of Non-Formal Education programs in streamlining the marginalized students

Second question was "How effective is the Non-Formal Education programs in streamlining the marginalized students?". Data related to this question were collected from teachers, and social mobilizers through questionnaire. Detailed data analysis is as follows:

Table 4.1*Teachers' Responses Regarding Streamlining and Marginalizing*

Statement	SD (%)	D (%)	Can't say (%)	A (%)	SA (%)	Mean Scores
This program is helpful for students to acquire new skills.	0	0	21%	0	79%	4.59
Non-formal education program can help in streamlining and marginalized communities.	0	0	21%	62%	17%	3.97
Non-formal education program can help in reducing marginalization in Punjab.	0	0	21%	79%	0	3.79
Government should invest more in non-formal education programs for marginalized communities?	0	0	21%	79%	0	3.79
Non-formal education programs should be targeted towards specific age groups or genders?	0	0	21%	3%	76%	4.55
Cumulative Mean Scores						4.14

The responses from teachers regarding the role of non-formal education in streamlining marginalized communities indicated a strong positive perception, as reflected in a cumulative mean score of 4.14. Teachers agreed that non-formal education programs help students acquire new skills, with the highest mean score of 4.59, and 79.3% strongly agreeing with this statement. This suggests that teachers recognize the practical benefits of these programs in equipping students with essential skills for future opportunities. Similarly, a high mean score of 4.55 indicated that teachers believe these programs should be targeted toward specific age groups or genders, emphasizing the need for structured and tailored educational interventions. While there is general agreement that non-formal education programs help reduce marginalization (mean scores: 3.79-3.97), these scores are slightly lower, suggesting that while teachers acknowledge their potential, they may perceive certain gaps in the implementation process. The moderate level of agreement on government investment in non-formal education (mean: 3.79) indicated that while teachers recognize the importance of such initiatives, they may feel that current efforts are insufficient and require further reinforcement.

Table 4.2*Social Mobilizers' Responses Regarding Streamlining and Marginalizing*

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean Scores
This program is helpful for out of school children to acquire new skills.	5%	6%	6%	60%	23%	3.91
Non-formal education is helping in streamlining and marginalized communities.	5%	6%	6%	49%	34%	4.02
Non-formal education is helping to reduce the illiteracy in deprived areas of Punjab.	0	11%	6%	60%	23%	3.95
Government should more focus on non-formal education programs for marginalized communities?	3%	4%	8%	62%	23%	3.97
Cumulative Mean Scores						3.96

Social mobilizers also exhibited a positive perception regarding the impact of non-formal education on marginalized communities, as reflected in the cumulative mean score of 3.96. Their responses indicated a strong agreement that non-formal education helps streamline marginalized groups (mean: 4.02) and reduces illiteracy in deprived areas (mean: 3.95). A significant proportion of social mobilizers believe that such programs play a crucial role in providing access to education for out-of-school children, with 59.4% agree responses and 23.4% strongly agree responses that the program helps these children acquire new skills. The emphasis on government support (mean: 3.97) highlights the perception that policy-driven interventions are necessary for sustaining and expanding these programs. However, the presence of neutral and slightly negative responses in some areas suggests that social mobilizers, who work closely with communities, may experience greater on-ground challenges in implementing these initiatives compared to teachers. Despite their positive perception, the variation in mean scores reflects the practical challenges they encounter in mobilizing communities, addressing literacy barriers, and securing adequate resources for non-formal education programs.

4.1.3 Role of Non-Formal Education programs in scaling up functional literacy

Third research question was “How effective are Non-Formal Education programs in scaling up functional literacy for the students?”. Data related to this question were collected from teachers through questionnaire. Detailed data analysis is as follows:

Table 4.3

Effectiveness of the non-formal education program(s)

Response	Percent	Mean
Not Effective	0	
Least Effective	0	3.79
Can't say	21%	
Effective	0	
Very Effective	79%	

Data related to the effectiveness of the non-formal education program(s) indicated that according to 79 % respondents, these programs are playing an important role in enhancing students' functional literacy (reading, writing, and arithmetic) skills. Besides, mean score (3.79) is also within the range of positive perception regarding the effective of NFE program.

Table 4.4

Accessibility of non-formal education programs for individuals

Response	Percent	Mean
Not Accessible	0	
Less Accessible	0	
Accessible		4.10
Undecided	0	
Accessible	90%	
Highly Accessible	10%	

Table 4.4 represents the teachers' opinion about accessibility of non-formal education programs for individuals interested in improving their functional literacy

skills in Punjab. 90% respondents rated these programs accessible' for individuals interested in improving their functional literacy skills in Punjab, with a mean score of 4.10. Overall, all the respondents consider this program accessible for individuals to improve their functional literacy.

Table 4.5

Positive impact of non-formal education programs

Response	Frequency	Percent
No	0	0
Yes	92	79%
Can't Say	24	21%

Table 4.5 represents the teachers' observation about the positive impact of non-formal education programs on the functional literacy of the students. Data indicated that 79% stated 'Yes' they have observed a positive impact of non-formal education programs on the functional literacy levels of students in Punjab.

Table 4.6

Methods to be used in the NFE programs for functional literacy

Response	Frequency	Percent
Traditional classroom lectures	8	7
Storytelling and drama for engaging learning	24	21
Utilizing local knowledge and context	4	3
Interactive workshops and activities	80	69
Total	116	100

Table 4.6 represents the teachers' opinion about the least likely method for functional literacy in non-formal education programs. Majority of the participants (69%) indicated that individual workbooks and assignments are least likely method used in the non-formal education programs for functional literacy.

Based on above data, it can be concluded that the teachers perceive the non-formal education program to be highly effective in enhancing students' functional literacy skills, and the programs are generally accessible to individuals interested in improving their functional literacy. They have observed positive impacts of the programs on the functional literacy levels of students in Punjab, with a focus on

promoting community-focused functional skills. The least likely method used in these programs is individual workbooks and assignments.

4.1.4 Challenges Faced for the Establishment of NFE Schools

Fifth research question was “ what are the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab? Quantitative data related to this question were collected from social mobilizers through questionnaire. Detailed data analysis is as follows:

Table 4.7

Challenges faced by Social Mobilizers in Establishing NFBES

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean Scores
Community is a necessary element for establishing NFES.	5%	3%	4%	50%	28%	3.94
Famous personality of the community plays an important role in establishing NFES	3%	9%	4%	41%	42%	4.09
Statistical data of the community play significant role in establishing NFES	6%	1%	45%	41%	47%	4.20
Distance is a very big difficulty in establishing new NFES	2%	2%	5%	48%	43%	4.31
Resistance from community is a major problem in establishing NFES	2%	3%	3%	62%	30%	4.16
Finding teachers is a significant challenge in establishing NFES	0	3%	5%	48%	44%	4.33
Uncovered areas in the community are very big challenge in establishing NFES	3%	3%	2%	62%	30%	4.13
Fulfilling the basic criteria creates challenge in establishing new NFES	5%	3%	3%	45%	44%	4.20
Cumulative Mean Scores						4.17

The challenges faced by social mobilizers in establishing non-formal basic education schools (NFBES) are perceived as significant, with a cumulative mean score of 4.17 which indicated strong concerns about the challenges in setting up these institutions. The highest mean score (4.33) is for the difficulty of finding qualified teachers, with 48.4% agree and 43.8% strongly agree responses, highlighting a critical shortage of trained educators willing to work in these settings. Geographical distance (mean: 4.31) is another major challenge as nearly 44% of strongly agree responses indicated that the remote locations of many marginalized communities make school accessibility a pressing issue. Community resistance (mean: 4.16) also emerged as a considerable barrier which indicated that social mobilizers often face opposition when trying to introduce educational initiatives in certain areas. Additionally, statistical data availability (mean: 4.20) and the role of community influencers (mean: 4.09) are perceived as crucial factors in successfully establishing NFBES. This data highlights the need for strategic interventions, including targeted teacher recruitment, improved infrastructure, and stronger community engagement efforts, to address the logistical and social barriers hindering the expansion of non-formal education in marginalized regions.

4.1.5 Relationship in the Academic Achievement of Students

First hypothesis was “There is no significant relationship in the academic achievement of students in different subjects. Data related to students results in English, mathematics and science subjects to address this hypothesis were collected from PEC results. Detailed data analysis is as follows:

Table 4.8

Correlation between marks among total, English, mathematics and science subjects

Subjects	Total	English	Mathematics	Science
Total	-			
English	.885	-		
Mathematics	.888	.716	-	
Science	.866	.624	.643	-

Table 4.8 represented the correlation coefficients between total marks and marks obtained in English, Mathematics, and Science. Obtained data indicated a very strong positive correlation between total marks and Mathematics ($r = .888$, $p < .01$), followed closely by marks in English subject ($r = .885$, $p < .01$), and marks in Science ($r = .866$, $p < .01$). This data highlighted that higher marks in these individual subjects are strongly

associated with higher overall total marks. Besides, data given in table also indicated a strong positive correlations between the marks in English and Mathematics ($r = .716$, $p < .01$), marks in English and Science subjects ($r = .624$, $p < .01$), and marks in Mathematics and Science subjects ($r = .643$, $p < .01$). These results indicated that academic achievement in one subject is positively correlated with academic achievement in other subjects as well. Overall, the data showed a consistent pattern of strong interrelations among the students' academic achievement in three selected subjects and overall academic achievement

4.1.6 Difference in the Academic Achievement of Male and Female Students

Second research hypothesis was “There is no significant difference in the academic achievement of male and female students”. Data related to male and female students results in English, mathematics and science subjects to address this hypothesis were collected from PEC results. Detailed data analysis is as follows:

Table 4.9

Comparison of total, English, mathematics and science subjects' marks between male and female students

Variables	Male (260)		Female (514)		T	P	Cohen's d
	Mean	SD	Mean	SD			
Total	201.43	44.42	187.68	48.23	3.847	.000	0.293
English	65.68	18.31	61.46	17.68	2.717	.007	0.236
Mathematics	67.98	16.40	62.32	17.17	4.394	.000	0.335
Science	68.30	16.93	63.90	19.56	3.086	.002	0.235

An independent samples t-test was conducted to compare the total marks of male and female students and their marks in the subjects of English, mathematics, and science subjects. Results indicated that male students ($M = 201.43$, $SD = 44.42$) scored significantly higher than female students ($M = 187.68$, $SD = 48.23$) on total marks, $t(772) = 3.85$, $p < .001$, with a small effect size (Cohen's $d = 0.29$). Subject wise results indicated male students significantly performed better ($M = 65.68$, $SD = 18.31$) in English subject than female students ($M = 61.46$, $SD = 17.68$), $t(772) = 2.72$, $p = .007$, with a small effect size (Cohen's $d = 0.24$). Similarly, in the subject of mathematics, male students scored significantly higher than female students with a small to moderate

effect size (Cohen's $d = 0.34$). And likewise in the subject of science male students also performed better than female students with a small effect size (Cohen's $d = 0.24$). Data reflected that male students show higher marks for total, English, Mathematics and science subjects' than that of female students.

4.1.7 Difference in Academic Achievement of Students among Different Districts

Third hypothesis was "There is no significant difference in the academic achievement of students among different districts.". District wise data related to students' results were collected from PEC results. Detailed data analysis is as follows:

Table 4.10

Descriptive Statistics of total, English, mathematics and science subjects' marks among different districts

		Districts	n	Mean	Std. Deviation
Total	Muzafargarh	165	193.9212	50.45826	
	Multan	146	202.1027	41.74599	
	Bahawalpur	155	186.3290	51.81938	
	Rahimyar Khan	154	185.6753	45.63837	
	Dera Ghazi Khan	154	193.9091	44.80887	
	Total	774	192.3010	47.40070	
English	Muzafargarh	165	60.4182	18.41198	
	Multan	146	64.8767	16.29465	
	Bahawalpur	155	62.0258	19.23098	
	Rahimyar Khan	154	60.2922	16.17022	
	Dera Ghazi Khan	154	66.1688	18.81517	
	Total	774	62.7003	17.96887	
Math	Muzafargarh	165	66.5636	19.10953	
	Multan	146	68.4795	14.71017	
	Bahawalpur	155	61.7806	17.61540	
	Rahimyar Khan	154	61.8831	16.25731	
	Dera Ghazi Khan	154	62.4675	16.39551	
	Total	774	64.2209	17.11423	
Science	Muzafargarh	165	66.9394	20.45778	
	Multan	146	68.7466	15.92950	
	Bahawalpur	155	62.5226	20.30653	
	Rahimyar Khan	154	63.5000	19.32192	
	Dera Ghazi Khan	154	65.2727	16.96528	
	Total	774	65.3798	18.82576	

Students from Multan tend to perform better overall, particularly in Math and Science, while students from Bahawalpur and Rahimyar Khan show comparatively lower average scores.

Table 4.10a

The comparison of total, English, mathematics and science subjects' marks among different districts

Subjects	Sum of Squares	Mean Square	F _(4, 769)	η ²	p-value
	4367.176	1091.794	3.424	.02	.009
English	245219.284	318.881			
	249586.460				
	5791.425	1447.856	5.047	.03	.001
Math	220617.796	286.889			
	226409.221				
	3867.592	966.898	2.753	.01	.027
Science	270090.734	351.223			
	273958.326				
Total	27146.712	6786.678	3.053	.02	.016
	1709650.148	2223.212			
	1736796.859				

Table 4.10a presented an analysis of variance (ANOVA) to compare students' academic achievement across different districts in the subjects of English, mathematics, science, and total marks. The results indicated statistically significant differences in the academic achievement of students among districts for the subjects English ($F(4, 769) = 3.424$, $p = .009$, $\eta^2 = .02$), mathematics ($F(4, 769) = 5.047$, $p = .001$, $\eta^2 = .03$), science ($F(4, 769) = 2.753$, $p = .027$, $\eta^2 = .01$), and total marks ($F(4, 769) = 3.053$, $p = .016$, $\eta^2 = .02$). Although all results are statistically significant, the effect sizes (η^2) are small, which indicated that while district-level differences exist, their practical impact on students' academic achievement is limited. The highest F-value is observed in mathematics, indicating a more noticeable variance across the achievement of different districts' students in this subject. All p-values are $< .05$, meaning the null hypothesis is rejected for each subject — there are significant differences between districts. However, η^2 values indicate small effect sizes (between .01 and .03), suggesting that while these differences exist, they are not large or practically very strong.

Table 4.10 b*The post hoc analysis for English, mathematics and science subjects' marks among different districts*

		Multiple Comparisons						
LSD	Dependent Variable	(I) District	(J) District	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
English	English	Muzafargarh	Multan	-4.45853*	2.02897	.028	-8.4415	-.4756
			Bahawalpur	-1.60762	1.99747	.421	-5.5288	2.3135
			Rahimyar Khan	.12597	2.00082	.950	-3.8017	4.0537
			Dera Ghazi Khan	-5.75065*	2.00082	.004	-9.6784	-1.8229
		Multan	Muzafargarh	4.45853*	2.02897	.028	.4756	8.4415
		Multan	Bahawalpur	2.85091	2.05947	.167	-1.1919	6.8938
			Rahimyar Khan	4.58450*	2.06271	.027	.5353	8.6337
			Dera Ghazi Khan	-1.29212	2.06271	.531	-5.3413	2.7571
	Math	Bahawalpur	Muzafargarh	1.60762	1.99747	.421	-2.3135	5.5288
			Multan	-2.85091	2.05947	.167	-6.8938	1.1919
			Rahimyar Khan	1.73360	2.03174	.394	-2.2548	5.7220
			Dera Ghazi Khan	-4.14302*	2.03174	.042	-8.1314	-.1546
		Rahimyar Khan	Muzafargarh	-.12597	2.00082	.950	-4.0537	3.8017
	Science	Rahimyar Khan	Multan	-4.58450*	2.06271	.027	-8.6337	-.5353
			Bahawalpur	-1.73360	2.03174	.394	-5.7220	2.2548
			Dera Ghazi Khan	-5.87662*	2.03502	.004	-9.8715	-1.8818
			Muzafargarh	5.75065*	2.00082	.004	1.8229	9.6784
		Dera Ghazi Khan	Multan	1.29212	2.06271	.531	-2.7571	5.3413
		Dera Ghazi Khan	Bahawalpur	4.14302*	2.03174	.042	.1546	8.1314
			Rahimyar Khan	5.87662*	2.03502	.004	1.8818	9.8715
			Muzafargarh	-1.91582	1.92450	.320	-5.6937	1.8621
Math	Math	Muzafargarh	Multan	4.78299*	1.89463	.012	1.0637	8.5023
			Bahawalpur	4.68052*	1.89780	.014	.9550	8.4060
			Rahimyar Khan	4.09610*	1.89780	.031	.3706	7.8216
			Dera Ghazi Khan	1.91582	1.92450	.320	-1.8621	5.6937
		Multan	Muzafargarh	6.69881*	1.95343	.001	2.8641	10.5335
	Science	Rahimyar Khan	Bahawalpur	6.59634*	1.95650	.001	2.7556	10.4371
			Rahimyar Khan	6.01192*	1.95650	.002	2.1712	9.8526
			Dera Ghazi Khan					

Science	Bahawalpur	Muzafargarh	-4.78299*	1.89463	.012	-8.5023	-1.0637
		Multan	-6.69881*	1.95343	.001	-10.5335	-2.8641
		Rahimyar Khan	-.10247	1.92713	.958	-3.8855	3.6806
		Dera Ghazi Khan	-.68689	1.92713	.722	-4.4699	3.0962
		Muzafargarh	-4.68052*	1.89780	.014	-8.4060	-.9550
	Rahimyar Khan	Multan	-6.59634*	1.95650	.001	-10.4371	-2.7556
		Bahawalpur	.10247	1.92713	.958	-3.6806	3.8855
		Dera Ghazi Khan	-.58442	1.93024	.762	-4.3736	3.2048
		Muzafargarh	-4.09610*	1.89780	.031	-7.8216	-.3706
		Multan	-6.01192*	1.95650	.002	-9.8526	-2.1712
Mathematics	Dera Ghazi Khan	Bahawalpur	.68689	1.92713	.722	-3.0962	4.4699
		Rahimyar Khan	.58442	1.93024	.762	-3.2048	4.3736
		Muzafargarh	-4.09610*	1.89780	.031	-7.8216	-.3706
		Multan	-6.01192*	1.95650	.002	-9.8526	-2.1712
		Bahawalpur	.68689	1.92713	.722	-3.0962	4.4699
	Multan	Rahimyar Khan	.58442	1.93024	.762	-3.2048	4.3736
		Muzafargarh	-1.80718	2.12938	.396	-5.9873	2.3729
		Multan	4.41681*	2.09633	.035	.3016	8.5320
		Rahimyar Khan	3.43939	2.09983	.102	-.6827	7.5615
		Dera Ghazi Khan	1.66667	2.09983	.428	-2.4554	5.7888
Social Studies	Bahawalpur	Muzafargarh	1.80718	2.12938	.396	-2.3729	5.9873
		Bahawalpur	6.22399*	2.16139	.004	1.9811	10.4669
		Rahimyar Khan	5.24658*	2.16479	.016	.9970	9.4962
		Dera Ghazi Khan	3.47385	2.16479	.109	-.7757	7.7234
		Muzafargarh	-4.41681*	2.09633	.035	-8.5320	-.3016
	Rahimyar Khan	Multan	-6.22399*	2.16139	.004	-10.4669	-1.9811
		Rahimyar Khan	-.97742	2.13228	.647	-5.1632	3.2084
		Dera Ghazi Khan	-2.75015	2.13228	.198	-6.9359	1.4356
		Muzafargarh	-3.43939	2.09983	.102	-7.5615	.6827
		Multan	-5.24658*	2.16479	.016	-9.4962	-.9970
Urdu	Dera Ghazi Khan	Bahawalpur	.97742	2.13228	.647	-3.2084	5.1632
		Dera Ghazi Khan	-1.77273	2.13573	.407	-5.9653	2.4198
		Muzafargarh	-1.66667	2.09983	.428	-5.7888	2.4554
		Multan	-3.47385	2.16479	.109	-7.7234	.7757
		Bahawalpur	2.75015	2.13228	.198	-1.4356	6.9359
	Rahimyar Khan	Rahimyar Khan	1.77273	2.13573	.407	-2.4198	5.9653

Table 4.10, 4.10a and 4.10b presented an analysis of variance (ANOVA) to compare students' academic achievement across different districts in the subjects of English, mathematics, science, and total marks. The results indicated statistically significant differences in the academic achievement of students among districts for the subjects English ($F(4, 769) = 3.424$, $p = .009$, $\eta^2 = .02$), mathematics ($F(4, 769) = 5.047$, $p = .001$, $\eta^2 = .03$), science ($F(4, 769) = 2.753$, $p = .027$, $\eta^2 = .01$), and total marks ($F(4, 769) = 3.053$, $p = .016$, $\eta^2 = .02$). Although all results are statistically significant, the effect sizes (η^2) are small, which indicated that while district-level differences exist, their practical impact on students' academic achievement is limited. The highest F-value is observed in mathematics, indicating a more noticeable variance across the academic achievement of different districts' students in this subject. From the post hoc analysis it is concluded that for English the maximum difference found in district Muzaffargarh and Dera Ghazi Khan, similarly for Mathematics the maximum difference found in district Multan and Bahawalpur. Furthermore, for science subject the maximum difference found in district Bahawalpur and Multan

This test identifies which specific districts differ significantly from each other:

English

- Muzaffargarh vs. D.G. Khan: significant difference (-5.75 marks)
- Multan vs. Rahimyar Khan: significant difference (4.58 marks)
- D.G. Khan vs. Rahimyar Khan: significant difference (5.87 marks)

Conclusion: Most difference seen between Muzaffargarh & D.G. Khan and between Multan & Rahimyar Khan.

Math

- Multan significantly outperforms Bahawalpur and Rahimyar Khan
- Bahawalpur has significantly lower scores than Multan and Muzaffargarh

Conclusion: The greatest gap is between Multan & Bahawalpur (6.7 marks) and Multan & Rahimyar Khan (6.6 marks)

Science

- Multan significantly outperforms Bahawalpur (6.2 marks) and Rahimyar Khan (5.2 marks)
- Muzaffargarh vs. Bahawalpur also shows a significant gap

Conclusion: The most prominent difference is between Multan & Bahawalpur, and Multan & Rahimyar Khan

4.1.8 Difference in the Academic Achievement of Students from 2019-2023

Fourth hypothesis was "There is no significant difference in the academic achievement of students from 2019-2023. Year wise data related to students' results were collected from PEC results. Detailed data analysis is as follows:

Table 4.11

Descriptive Statistics of total, English, mathematics and science subjects' marks among different years (2019, 2020, 2021, 2022 and 2023)

		Districts	N	Mean	Std. Deviation
Total	2023	174	221.8276	40.55901	
	2022	150	210.9733	46.69132	
	2021	150	128.5933	13.87678	
	2020	150	206.7667	27.42223	
	2019	150	188.6200	30.69894	
	Total	774	192.3010	47.40070	
English	2023	174	73.4310	15.71838	
	2022	150	67.5400	18.66937	
	2021	150	43.3800	5.75060	
	2020	150	63.0933	15.71104	
	2019	150	64.3400	14.93558	
	Total	774	62.7003	17.96887	
Math	2023	174	74.9483	14.75318	
	2022	150	67.8000	17.30345	
	2021	150	42.7000	6.56690	
	2020	150	66.0800	11.34541	
	2019	150	67.8600	12.85334	
	Total	774	64.2209	17.11423	
Science	2023	174	73.4483	15.62698	
	2022	150	75.6333	18.25635	
	2021	150	42.5133	5.61008	
	2020	150	77.5933	8.81586	
	2019	150	56.4200	13.16762	
	Total	774	65.3798	18.82576	

Table 4.11a

The comparison of total, English, mathematics and science subjects' marks among different years (2019, 2020, 2021, 2022 and 2023)

Marks	Sum of Squares	Mean Square	F_(4, 769)	η²	p-value
	846215.772	211553.943	182.673	.49	.000
Total	890581.088	1158.103			
	1736796.859				
	79966.834	19991.709	90.636	.32	.000
English	169619.626	220.572			
	249586.460				
	93922.086	23480.522	136.289	.41	.000
Math	132487.134	172.285			
	226409.221				
	139946.251	34986.563	200.763	.51	.000
Science	134012.074	174.268			
	273958.326				

Table 4.11a demonstrated a comparative analysis of students' academic achievement across five academic years. The data revealed highly significant differences over the years for total marks ($F(4, 769) = 182.673$, $p < .001$, $\eta^2 = .49$), English ($F(4, 769) = 90.636$, $p < .001$, $\eta^2 = .32$), mathematics ($F(4, 769) = 136.289$, $p < .001$, $\eta^2 = .41$), and science ($F(4, 769) = 200.763$, $p < .001$, $\eta^2 = .51$). The large effect sizes are particularly for subject ($\eta^2 = .51$) and total marks ($\eta^2 = .49$), which indicated that year-wise variation has a significant impact on students' academic achievement. This could be due to changes in educational policies, instructional quality, curriculum modifications, or external factors affecting academic outcomes over time.

Table 4.11 b

The post hoc analysis for English, mathematics and science subjects' marks among different years (2019, 2020, 2021, 2022 and 2023)

LSD Dependent Variable	(I) Year	(J) Year	Multiple Comparisons				
			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
English	2023	2022	5.89103 [*]	1.65473	.000	2.6427	9.1394
		2021	30.05103 [*]	1.65473	.000	26.8027	33.2994
		2020	10.33770 [*]	1.65473	.000	7.0894	13.5860
		2019	9.09103 [*]	1.65473	.000	5.8427	12.3394
	2022	2023	-5.89103 [*]	1.65473	.000	-9.1394	-2.6427
		2021	24.16000 [*]	1.71492	.000	20.7935	27.5265
		2020	4.44667 [*]	1.71492	.010	1.0802	7.8131
		2019	3.20000	1.71492	.062	-.1665	6.5665
	2021	2023	-30.05103 [*]	1.65473	.000	-33.2994	-26.8027
		2022	-24.16000 [*]	1.71492	.000	-27.5265	-20.7935
		2020	-19.71333 [*]	1.71492	.000	-23.0798	-16.3469
		2019	-20.96000 [*]	1.71492	.000	-24.3265	-17.5935
Math	2020	2023	-10.33770 [*]	1.65473	.000	-13.5860	-7.0894
		2022	-4.44667 [*]	1.71492	.010	-7.8131	-1.0802
		2021	19.71333 [*]	1.71492	.000	16.3469	23.0798
		2019	-1.24667	1.71492	.467	-4.6131	2.1198
	2019	2023	-9.09103 [*]	1.65473	.000	-12.3394	-5.8427
		2022	-3.20000	1.71492	.062	-6.5665	.1665
		2021	20.96000 [*]	1.71492	.000	17.5935	24.3265
		2020	1.24667	1.71492	.467	-2.1198	4.6131
	2022	2023	7.14828 [*]	1.46243	.000	4.2774	10.0191
		2021	32.24828 [*]	1.46243	.000	29.3774	35.1191
		2020	8.86828 [*]	1.46243	.000	5.9974	11.7391
		2019	7.08828 [*]	1.46243	.000	4.2174	9.9591

		2019	-.06000	1.51563	.968	-3.0353	2.9153
	2021	2023	-32.24828*	1.46243	.000	-35.1191	-29.3774
		2022	-25.10000*	1.51563	.000	-28.0753	-22.1247
		2020	-23.38000*	1.51563	.000	-26.3553	-20.4047
		2019	-25.16000*	1.51563	.000	-28.1353	-22.1847
	2020	2023	-8.86828*	1.46243	.000	-11.7391	-5.9974
		2022	-1.72000	1.51563	.257	-4.6953	1.2553
		2021	23.38000*	1.51563	.000	20.4047	26.3553
		2019	-1.78000	1.51563	.241	-4.7553	1.1953
	2019	2023	-7.08828*	1.46243	.000	-9.9591	-4.2174
		2022	.06000	1.51563	.968	-2.9153	3.0353
		2021	25.16000*	1.51563	.000	22.1847	28.1353
		2020	1.78000	1.51563	.241	-1.1953	4.7553
Science	2023	2022	-2.18506	1.47083	.138	-5.0724	.7023
		2021	30.93494*	1.47083	.000	28.0476	33.8223
		2020	-4.14506*	1.47083	.005	-7.0324	-1.2577
		2019	17.02828*	1.47083	.000	14.1410	19.9156
	2022	2023	2.18506	1.47083	.138	-7.023	5.0724
		2021	33.12000*	1.52433	.000	30.1277	36.1123
		2020	-1.96000	1.52433	.199	-4.9523	1.0323
		2019	19.21333*	1.52433	.000	16.2210	22.2057
	2021	2023	-30.93494*	1.47083	.000	-33.8223	-28.0476
		2022	-33.12000*	1.52433	.000	-36.1123	-30.1277
		2020	-35.08000*	1.52433	.000	-38.0723	-32.0877
		2019	-13.90667*	1.52433	.000	-16.8990	-10.9143
	2020	2023	4.14506*	1.47083	.005	1.2577	7.0324
		2022	1.96000	1.52433	.199	-1.0323	4.9523
		2021	35.08000*	1.52433	.000	32.0877	38.0723
		2019	21.17333*	1.52433	.000	18.1810	24.1657
	2019	2023	-17.02828*	1.47083	.000	-19.9156	-14.1410
		2022	-19.21333*	1.52433	.000	-22.2057	-16.2210
		2021	13.90667*	1.52433	.000	10.9143	16.8990
		2020	-21.17333*	1.52433	.000	-24.1657	-18.1810

Table 4.11 and 4.11a and 4.11b demonstrated a comparative analysis of students' academic achievement across five academic years. The data revealed highly significant differences over the years for total marks ($F(4, 769) = 182.673, p < .001, \eta^2 = .49$), English ($F(4, 769) = 90.636, p < .001, \eta^2 = .32$), mathematics ($F(4, 769) = 136.289, p < .001, \eta^2 = .41$), and science ($F(4, 769) = 200.763, p < .001, \eta^2 = .51$). The large effect sizes are particularly for subject ($\eta^2 = .51$) and total marks ($\eta^2 = .49$), which indicated that year-wise variation has a significant impact on students' academic achievement. This could be due to changes in educational policies, instructional quality, curriculum modifications, or external factors affecting academic outcomes over time. From the post hoc analysis we conclude that for English the maximum difference found in years 2021 and 2023 Ghazi Khan, similarly for Mathematics the maximum difference found in years 2019 and 2021. Furthermore, for science subject the maximum difference found in years 2020 and 2021.

4.1.9 Relationship between “streamlining and marginalizing” and “scaling up functional literacy”

Fifth hypothesis was “There is no significant relationship between “streamlining and marginalizing” and “scaling up functional literacy”. Data related to this hypothesis were collected from teachers. Detailed data analysis is as follows:

Table 4.12

Correlation between “Streamlining and Marginalizing” and “Scaling up Functional Literacy”

Variables	1	2
Streamlining and Marginalizing	-	
Scaling up Functional Literacy	.986	-

n = 116 p < .001

Table 4.12 showed a strong positive correlation ($r = .986$) between "Streamlining and Marginalizing" and "Scaling up Functional Literacy." This near-perfect correlation indicated that initiatives aimed at streamlining and marginalizing processes are closely associated with efforts to enhance functional literacy levels. The strength of this relationship highlighted the importance of organized educational strategies and policies in scaling up literacy interventions effectively.

Overall quantitative data analysis indicated that teachers' responses regarding streamlining and marginalizing indicated a strong positive perception, as reflected in a

cumulative mean score of 4.14. Social mobilizers also exhibited a positive perception regarding the impact of non-formal education on marginalized communities with a cumulative mean score of 3.96. All the teachers consider this program accessible for individuals to improve their functional literacy. 79% stated that they have observed a positive impact of non-formal education programs on the functional literacy levels of students in Punjab. Majority of the participants (69%) indicated that individual workbooks and assignments are least likely method used in the non-formal education programs for functional literacy.

Data analysis related to challenges faced by social mobilizers in establishing NFBES indicated that they face challenges in finding qualified teachers due to geographical distance of schools, which showed that the remote locations of many marginalized communities make school accessibility a pressing issue. Community resistance. Results of statistical analysis indicated that academic achievement in one subject is positively correlated with academic achievement in other subjects as well. Further, the data analysis highlighted significant gender-wise, district-wise and year-wise variations in students' academic achievement. The significant year-wise effect sizes point towards evolving educational trends and systemic improvements or challenges. Furthermore, the strong correlation between streamlining and scaling up literacy emphasized the organized nature of policy interventions and literacy outcomes. These insights can guide policymakers and educators in targeted improvements and resource allocation.

4.2 Qualitative Data Analysis

This section is based on five major themes; brief description of each theme is as follows:

- 4.2.1 Effectiveness of Non-Formal Education programs
- 4.2.2 Role of Non-Formal Education programs in streamlining the marginalized students
- 4.2.3 Role of Non-Formal Education programs in scaling up functional literacy for the students
- 4.2.4 Role of NFE Programs in Developing Vocational and Technical Skills among Students
- 4.2.5 Challenges faced by Social Mobilizers in Establishing NFBES

4.2.6 Challenges faced by DEOs in Establishing NFBES

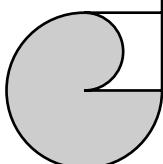
Detailed data analysis is as follows:

4.2.1 Effectiveness of Non-Formal Education programs

First question was “How effective is the Non-Formal Education programs in providing safe, nonviolent, inclusive and effective learning environments?” Data related to this question were collected from DEOs through interview. In order to explore the effectiveness of NFE program, two questions were asked from the DEOs. Some verbatim from DEOs responses are as follows:



1. *One best strategy to improve effectiveness of NFE programs is increasing the honoraria of teacher and giving it to teachers at time. A low honorarium is a major issue of the effectiveness of non-formal education program because qualified teachers demand high income according to their needs and financial conditions.*
2. *More teachers may be hired to improve the effectiveness of non-formal education programs, but the issue of honoraria becomes hurdle in hiring more teachers.*
3. *Public and private partnership can enhance the effectiveness of non-formal education programs. Public-private partnerships (PPPs) can indeed enhance the effectiveness of non-formal education programs in several ways like, the public sector (government) can provide the necessary infrastructure, facilities, and regulatory frameworks for non-formal education programs. The private sector (businesses, NGOs, philanthropic organizations) can contribute financial resources, technical expertise, and innovative approaches to program design and implementation.*
4. *There is need to ensure greater association between NFE and formal education systems. This could include creating pathways for NFE students to transition into formal schools and ensuring that NFE programs complement rather than compete with formal education initiatives.*
5. *Increased funding for NFE programs may be ensured, particularly from government and donor agencies to critical areas such as teacher salaries, teaching materials, and infrastructure development.*



Themes derived from these questions and data analysis based on these theme is as follows:

4.2.1.1 Suggestions to Improve the Program

Non-formal education (NFE) programs in Punjab, particularly in South Punjab, are vital for providing educational opportunities to marginalized and underserved populations. These programs aim to bridge the gap between formal education systems and communities that face barriers to accessing traditional schooling. However, NFE programs often encounter challenges related to resources, infrastructure, teacher quality, and community engagement. To address these challenges and enhance the effectiveness of NFE programs, District Education Officers (DEOs) play a critical role in identifying areas for improvement and suggesting actionable changes. This qualitative analysis highlighted the suggestions provided by DEOs to improve NFE programs, its detail is as follows:

- i. Policy Reforms and Institutional Support:** One of the most common suggestions from DEOs is the need for policy reforms and institutional support to improve NFE programs. Many DEOs highlighted the lack of a clear policy framework for NFE, which often leads to inconsistencies in implementation and resource allocation. Specific recommendations include:
 - a. Standardized Curriculum:** DEOs emphasized the need for a standardized curriculum tailored to the needs of non-formal learners. This curriculum should be flexible, relevant, and aligned with the formal education system to facilitate the transition of students into mainstream schools.
 - b. Recognition of NFE Certificates:** DEOs suggested that NFE certificates should be formally recognized by educational authorities to enhance the credibility and value of non-formal education. This would encourage greater enrollment and provide learners with better opportunities for further education or employment. These policy reforms would provide a stronger foundation for NFE programs, ensuring that they are aligned with broader educational goals and recognized as a legitimate alternative to formal schooling.
- ii. Capacity Building for Teachers and Staff:** DEOs identified the lack of qualified teachers and trained staff as a major challenge for NFE programs. To address this issue, they suggested several capacity-building initiatives, including:

- a. **Teacher Training Programs:** DEOs recommended the development of specialized training programs for NFE teachers, focusing on pedagogy, classroom management, and the unique needs of non-formal learners. These programs should be accessible and affordable, with opportunities for continuous professional development.
- b. **Recruitment of Local Teachers:** DEOs emphasized the importance of recruiting teachers from local communities, as they are more likely to understand the cultural and socio-economic context of learners. This would also help address the issue of teacher retention in remote areas.
- c. **Incentives for Teachers:** To attract and retain qualified teachers, DEOs suggested providing financial incentives, such as higher salaries, allowances, and performance-based bonuses. Non-monetary incentives, such as recognition and career advancement opportunities, were also recommended.

By investing in the capacity building of teachers and staff, NFE programs can improve the quality of education and create a more supportive learning environment for students.

- iii. **Community Engagement and Awareness:** DEOs highlighted the importance of community engagement in the success of NFE programs. Many challenges, such as low enrollment and community resistance, can be addressed through effective communication and awareness campaigns. Specific suggestions include:

- a. **Community Mobilization:** DEOs recommended involving community leaders, parents, and local organizations in the planning and implementation of NFE programs. This would help build trust, address misconceptions, and ensure that programs are aligned with community needs.
- b. **Awareness Campaigns:** DEOs suggested launching awareness campaigns to highlight the benefits of NFE and encourage greater participation. These campaigns could use local media, community meetings, and door-to-door outreach to reach a wider audience.
- c. **Parental Involvement:** DEOs emphasized the need to engage parents in the education process, particularly in rural areas where parental support is crucial for student retention. This could include regular parent-teacher meetings, workshops, and initiatives to address barriers to education, such as child labor or early marriages.

By fostering stronger relationships with communities, NFE programs can increase enrollment, improve retention rates, and ensure greater sustainability.

iv. Resource Allocation and Infrastructure Development: The lack of adequate resources and infrastructure is a significant barrier to the effectiveness of NFE programs. DEOs provided several recommendations to address this issue, including:

- a. Improvement of Learning Spaces:** DEOs suggested upgrading existing learning spaces and constructing new facilities to provide a conducive environment for learning. This could include building classrooms, providing furniture, and ensuring access to basic amenities such as electricity, water, and sanitation.
- b. Provision of Teaching Materials:** DEOs recommended providing NFE schools with adequate teaching materials, including textbooks, stationery, and technology tools. This would enhance the quality of education and ensure that students have the resources they need to succeed.

By addressing resource constraints and improving infrastructure, NFE programs can create a more effective and inclusive learning environment.

v. Monitoring and Evaluation: DEOs emphasized the need for robust monitoring and evaluation mechanisms to ensure the effectiveness of NFE programs. Specific suggestions include:

- a. Regular Assessments:** DEOs recommended conducting regular assessments of student learning outcomes to identify areas for improvement and measure the impact of NFE programs. These assessments should be aligned with the curriculum and provide actionable insights for teachers and administrators.
- b. Feedback Mechanisms:** DEOs suggested establishing feedback mechanisms to gather input from students, parents, and teachers. This feedback should be used to make data-driven decisions and improve program delivery.
- c. Accountability Measures:** DEOs called for greater accountability in the implementation of NFE programs, including transparent reporting and the use of performance indicators to track progress.

By implementing strong monitoring and evaluation systems, NFE programs can ensure continuous improvement and demonstrate their impact to stakeholders.

vi. Addressing Gender Disparities: DEOs highlighted the need to address gender disparities in NFE programs, particularly in rural areas where cultural norms and

safety concerns often limit girls' access to education. Specific recommendations include:

- a. **Girls-Only Schools:** DEOs suggested establishing girls-only NFE schools to provide a safe and supportive learning environment for female students.
- b. **Female Teachers:** DEOs recommended recruiting more female teachers, particularly in rural areas, to address cultural barriers and encourage greater enrollment of girls.
- c. **Awareness Programs:** DEOs emphasized the need for awareness programs to challenge gender stereotypes and promote the importance of girls' education.

By addressing gender disparities, NFE programs can ensure that all children, regardless of gender, have access to quality education.

vii. **Leveraging Technology:** DEOs recognized the potential of technology to enhance the effectiveness of NFE programs. Specific suggestions include:

- a. **Digital Learning Tools:** DEOs recommended incorporating digital learning tools, such as tablets, computers, and online resources, to make learning more engaging and accessible.
- b. **Teacher Training in Technology:** DEOs suggested providing training for teachers on how to use technology effectively in the classroom.
- c. **Online Platforms:** DEOs proposed developing online platforms for NFE programs to facilitate remote learning and reach students in remote areas.

By leveraging technology, NFE programs can overcome geographical barriers and provide innovative learning opportunities for students.

4.2.1.2 Additional feedback about the program

Non-formal education (NFE) programs in Punjab, particularly in South Punjab, are critical for providing educational opportunities to marginalized and underserved populations. These programs aim to address the gaps in the formal education system by offering flexible, accessible, and inclusive learning opportunities. However, the effectiveness of NFE programs is often hindered by a range of challenges, including resource constraints, infrastructural limitations, and socio-cultural barriers. District Education Officers (DEOs) play a pivotal role in overseeing the implementation of NFE programs and addressing these challenges. This qualitative analysis explores the additional feedback provided by DEOs on the effectiveness and challenges of NFE

programs as well as the strategies needed to enhance their impact. Detailed data analysis of DEOs responses is as follows:

i. Effectiveness of Non-Formal Education Programs: DEOs acknowledged the significant role of NFE programs in providing educational opportunities to out-of-school children, dropouts, and marginalized communities. They highlighted several key areas where NFE programs have been effective:

- a. Increased Access to Education:** DEOs noted that NFE programs have successfully reached populations that are often excluded from formal education, including children from remote rural areas, girls, and children from low-income families. The flexibility of NFE programs, such as evening classes and community-based learning centers, has made education more accessible to these groups.
- b. Improved Literacy and Numeracy Skills:** DEOs reported that NFE programs have contributed to improving basic literacy and numeracy skills among learners. Many students who were previously out of school have gained foundational skills that enable them to transition into formal education or pursue vocational training.
- c. Community Engagement:** DEOs emphasized the importance of community involvement in the success of NFE programs. By engaging local leaders, parents, and community members, NFE programs have been able to build trust, address cultural barriers, and ensure greater participation.
- d. Flexible Learning Models:** The adaptability of NFE programs, such as accelerated learning programs and multi-grade teaching, has been effective in catering to the diverse needs of learners. These models allow students to learn at their own pace and accommodate their socio-economic circumstances.

Despite these successes, DEOs also identified several challenges that limit the overall effectiveness of NFE programs.

ii. Challenges in Non-Formal Education Programs: DEOs provided detailed feedback on the challenges faced by NFE programs, which can be categorized into the following themes:

a. Resource Constraints: One of the most significant challenges highlighted by DEOs is the lack of adequate resources, including funding, teaching materials, and infrastructure. Specific issues include:

- **Insufficient Funding:** NFE programs often rely on donor funding, which can be inconsistent and insufficient to meet the needs of learners. This limits the ability of programs to provide quality education and sustain operations.
- **Lack of Teaching Materials:** Many NFE schools lack basic teaching materials, such as textbooks, stationery, and technology tools. This hampers the quality of education and limits the learning experience for students.
- **Poor Infrastructure:** Inadequate learning spaces, such as overcrowded classrooms or lack of basic amenities (e.g., electricity, water, and sanitation), create an unfavorable learning environment.

b. Teacher Quality and Availability: DEOs identified the shortage of qualified teachers as a major challenge for NFE programs. Key issues include:

- **Lack of Trained Teachers:** Many NFE teachers lack formal training in pedagogy and classroom management, which affects the quality of instruction.
- **High Teacher Turnover:** The temporary or contract-based nature of NFE teaching positions leads to high turnover rates, disrupting the continuity of education for students.
- **Limited Incentives:** Low salaries and lack of career advancement opportunities make it difficult to attract and retain qualified teachers.

c. Community Resistance and Cultural Barriers: DEOs highlighted the role of socio-cultural factors in limiting the effectiveness of NFE programs. Specific challenges include:

- **Gender Disparities:** In many rural areas, cultural norms and safety concerns prevent girls from attending NFE schools. This is particularly true for adolescent girls, who may face pressure to marry early or contribute to household chores.
- **Lack of Awareness:** Some communities do not fully understand the value of education, particularly non-formal education, leading to low enrollment and high dropout rates.
- **Child Labor:** Economic pressures often force children to work instead of attending school, particularly in low-income families.

d. Administrative and Policy Challenges: DEOs also pointed out systemic issues that hinder the effectiveness of NFE programs, including:

- **Lack of Policy Support:** The absence of a clear policy framework for NFE programs leads to inconsistencies in implementation and resource allocation.

- **Coordination Gaps:** Poor coordination between government agencies, NGOs, and other stakeholders often results in overlapping efforts or gaps in coverage.
- **Monitoring and Evaluation:** Weak monitoring and evaluation systems make it difficult to assess the impact of NFE programs and identify areas for improvement.

iii. **Additional Feedback and Recommendations:** In addition to identifying challenges, DEOs provided valuable feedback and recommendations to enhance the effectiveness of NFE programs. These include:

a. **Strengthening Policy and Institutional Support:** DEOs emphasized the need for a comprehensive policy framework to guide the implementation of NFE programs. Specific recommendations include:

- **Standardization of NFE Programs:** Developing a standardized curriculum and assessment framework for NFE programs to ensure consistency and quality.
- **Recognition of NFE Certificates:** Formal recognition of NFE certificates by educational authorities to enhance the credibility and value of non-formal education.
- **Integration with Formal Education:** Creating pathways for NFE students to transition into formal schools and aligning NFE programs with national education goals.

b. **Capacity Building for Teachers and Staff:** DEOs recommended several initiatives to improve teacher quality and availability, including:

- **Teacher Training Programs:** Providing specialized training for NFE teachers in pedagogy, classroom management, and the unique needs of non-formal learners.
- **Recruitment of Local Teachers:** Hiring teachers from local communities to ensure cultural relevance and improve retention rates.
- **Incentives for Teachers:** Offering financial and non-financial incentives, such as higher salaries, allowances, and career advancement opportunities, to attract and retain qualified teachers.

c. **Enhancing Community Engagement:** DEOs highlighted the importance of community involvement in the success of NFE programs. Specific recommendations include:

- **Awareness Campaigns:** Launching awareness campaigns to highlight the benefits of NFE and encourage greater participation.
- **Parental Involvement:** Engaging parents in the education process through regular meetings, workshops, and initiatives to address barriers to education.

- **Collaboration with Local Leaders:** Working with community leaders and influencers to build trust and address cultural barriers.

d. Improving Resource Allocation and Infrastructure: DEOs called for increased investment in NFE programs to address resource constraints and improve infrastructure. Specific recommendations include:

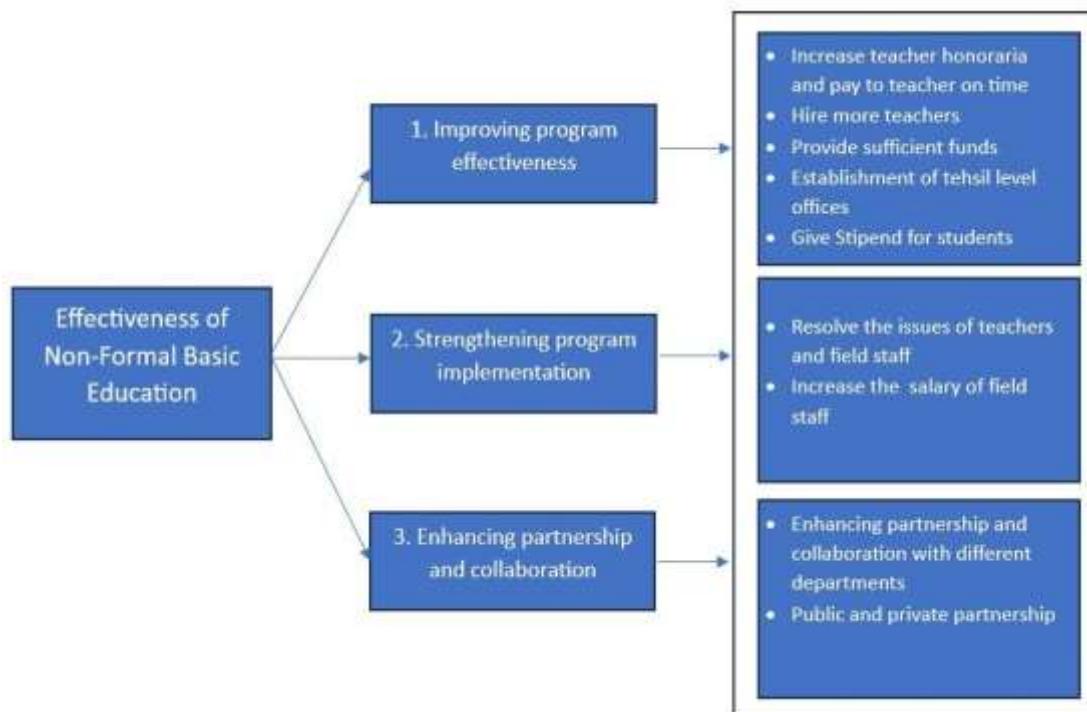
- **Increased Funding:** Securing consistent and adequate funding from government and donor agencies to support NFE programs.
- **Upgrading Learning Spaces:** Improving existing learning spaces and constructing new facilities to provide a conducive environment for learning.
- **Provision of Teaching Materials:** Ensuring that NFE schools have access to adequate teaching materials, including textbooks, stationery, and technology tools.

e. Strengthening Monitoring and Evaluation: DEOs emphasized the need for robust monitoring and evaluation systems to assess the impact of NFE programs and identify areas for improvement. Specific recommendations include:

- **Regular Assessments:** Conducting regular assessments of student learning outcomes to measure the effectiveness of NFE programs.
- **Feedback Mechanisms:** Establishing feedback mechanisms to gather input from students, parents, and teachers.
- **Accountability Measures:** Implementing transparent reporting and performance indicators to track progress and ensure accountability.

Figure 4.1

Effectiveness of Non-Formal Education Program



The DEOs' perspectives provide valuable insights into the practical challenges and potential solutions to address the gaps in the implementation and sustainability of these programs. Improving program effectiveness by addressing resource constraints, strengthening teacher support, and establishing dedicated administrative structures can help enhance the quality and accessibility of non-formal education. Resolving issues faced by teachers and field staff can boost their morale and commitment, leading to more effective program delivery. Fostering partnerships and collaboration can unlock additional resources, expertise, and community engagement, which are crucial for the long-term viability and scalability of non-formal education initiatives. The thematic analysis underscores the need for a holistic and coordinated approach to address the various challenges faced by DEOs in implementing non-formal education programs. By implementing the strategies outlined in this framework, education authorities can work towards improving the overall effectiveness of non-formal basic education, ultimately contributing to the goal of expanding access to quality education for marginalized and underserved communities in Punjab.

4.2.2 Role of Non-Formal Education programs in streamlining the marginalized students

Second question was “How effective is the Non-Formal Education programs in streamlining the marginalized students?” Qualitative data related to this question were collected from teachers, social mobilizers, and DEOs through interviews. Interview data analysis related to “Streamlining and Marginalizing” is as follows:

Teachers were asked that about measures through which non formal education programs be made more accessible to marginalized communities in Punjab. Most of the teachers (40%) said that by *increasing the schools in remote areas could make non-formal education more accessible to marginalized communities in Punjab*. 34% teachers said that *by increasing staff for schools could make non-formal education more accessible to marginalized communities in Punjab*, while 26% teachers stated that by increasing facilities at schools could make non-formal education more accessible to marginalized communities in Punjab. It was asked from teacher to highlight that how can non-governmental organizations (NGOs) play they're in promoting non formal education in marginalized communities? Data indicated that according to 40% teachers *NGOs can play role by providing financial assistance in promoting non-formal education*. 28% teachers said that NGOs can help in non-formal education through

providing premises for schools. Responses of 22% teachers indicated that NGOs can help in non-formal education by providing necessities, while 11% teachers said that NGOs can help non-formal education through supporting awareness campaigns in the remote areas.

Teachers were asked to share additional comments or feedback about the role of non-formal education in streamlining and marginalizing in Punjab. Data indicated that majority of the teachers (65%) said *non-formal education is helping to increase education in remote areas*. While 35% teachers stated that non-formal education is providing education at door step in remote areas. In response to a question about key benefits of non-formal education programs for marginalized communities, majority of the teachers (65%) stated that *non-formal education is helping to increase education in remote areas*, while 35% teachers said that non-formal education is providing education at door step in remote areas. Opinion of teachers was taken about the areas of non-formal education programs that should be focused for marginalized communities in Punjab. Nearly all the teachers highlighted that said non-formal education should focus on the education of technical skills, vocational skills, and preparing students for middle education. Key themes derived from that data are as follows:

Figure 4.2

Perceptions of Teachers about Streamlining and Marginalizing



The thematic analysis sheds light on critical considerations for ensuring non-formal education programs can effectively streamline access and mitigate marginalization in underserved communities. A central factor is Accessibility and Outreach, which encompasses strategies to Increase Schools in Remote Areas and Enhance Facilities. The data indicate that expanding the physical presence of non-formal education providers in remote, hard-to-reach locations is a crucial step. By establishing more schools and learning centers in these marginalized areas, the programs can directly address geographic barriers to educational access. Complementing this, the analysis highlights the need to Increase Facilities, such as classrooms, learning materials, and infrastructure. Ensuring adequate resources and

amenities in non-formal settings is essential for creating conducive learning environments.

Another key factor is Stakeholder Engagement, which focuses on leveraging partnerships and community mobilization. The teachers emphasized the value of Financial Assistance from NGOs and other organizations to help resource and sustain non-formal education initiatives. Additionally, securing Premises for Schools - whether through government, private, or community contributions - emerged as an important enabler for expanding program reach. Crucially, the analysis also underscores the need for Awareness Campaigns to drive greater engagement and participation. Proactively informing marginalized communities about the availability and benefits of non-formal education can help overcome entrenched social and cultural barriers that limit access, particularly for disadvantaged groups.

Social mobilizers were asked to give their opinion about how non-formal education programs can be more accessible for marginalized communities. Majority of the social mobilizers (61%) said that

Through resolving financial issues of teachers and other staff and providing center and learner kits the accessibility of non-formal education programs can be more accessible to marginalized communities. Through increase in teachers' salaries and providing in time salaries, teachers' interest and devotion towards teaching may be improved, which eventually effect quality of education. Through increasing salaries highly qualified teachers could be hired, which also affects the quality of education.

Similarly, along with the financial issues, providing teacher and learner kits at schools can make more accessible non-formal education programs to marginalized communities, because with the help of teachers and learners kits the process and quality of education will be improved. Teaching and learning process will become easier and more efficient. When the quality of education will increase the community will also take interest in the education of their children, which eventually make it more accessible to marginalized communities and more children will be streamlined. Social mobilizers further asked about the role of NGOs for promoting non-formal education in marginalized communities. Majority of the social mobilizers (67%) said that *NGOs can*

help to establish non-formal education schools in flooded areas in the form of tent schools because due to flood buildings could not be used for schools.

Similarly, NGOs provide many facilities in rural areas and flood areas in the form of goods, food, shelter, agricultural and financial support, therefore the people in such areas give importance and preference to the NGOs suggestions and agree to teach their children in non-formal education schools. Similarly, NGOs can provide student necessities in the form of books, copies and other learning material; this will help to improve quality of education and accessibility of non-formal education. NGOs can play a significant role in streamlining and expanding non-formal education programs in Punjab. NGOs can mobilize funding from various sources, including international donors, corporate partners, and individual contributors, to support the establishment and operation of non-formal education programs. They can provide equipment, learning materials, and infrastructure to enhance the quality of non-formal education in rural areas. NGOs can organize training programs for teachers and facilitators working in non-formal education settings, equipping them with the necessary pedagogical skills, teaching methodologies, and subject-matter expertise.

They can also provide ongoing professional development opportunities to ensure that the teaching staff is up-to-date with the latest educational trends and best practices. NGOs can work closely with local communities to raise awareness about the importance of non-formal education and its potential benefits for children and youth. They can engage community leaders, parents and other stakeholders to build trust, address any cultural or social barriers and encourage participation in non-formal education programs. NGOs can collaborate with education experts and local communities to develop innovative and contextually relevant curriculum and learning materials for non-formal education programs. They can incorporate digital technologies, interactive learning tools, and hands-on activities to make the learning experience more engaging and effective. NGOs can facilitate partnerships and knowledge-sharing among different non-formal education providers, allowing for the exchange of ideas, resources and best practices. They can also collaborate with government agencies, private sector organizations and other stakeholders to create a comprehensive and integrated system for non-formal education in Punjab.

As the Non-Formal Education (NFE) landscape continues to evolve, social mobilizers tasked with expanding access to quality education have encountered a

multifaceted set of challenges. A recent thematic analysis has shed light on the key factors that shape the streamlining and marginalizing processes within this dynamic educational domain. The first factor, "Accessibility and Outreach," highlights the critical role of non-governmental organizations (NGOs) in bridging the gap between educational opportunities and underserved communities. Social mobilizers have leveraged NGO partnerships to enhance the reach and visibility of their NFE initiatives, ensuring that those in the most remote and marginalized areas are not left behind. Additionally, the strategic use of official vehicles has been instrumental in facilitating the transportation of students and educators, further improving accessibility.

Moving beyond outreach, the analysis delved into the complexities of "Resource Provision and Utilization." Financial constraints have emerged as a significant obstacle, with social mobilizers grappling with the need to secure adequate funding to establish and maintain NFE centers. Equally crucial is the identification of suitable physical spaces to host these educational institutions. A challenge is exacerbated by the scarcity of available real estate. Furthermore, the analysis underscored the importance of ensuring the continuity of educational services during natural disasters or other emergencies, highlighting the necessity for contingency planning and resilient infrastructure. The analysis also revealed the profound "Educational Impact" of NFE initiatives. By bringing education to the doorsteps of marginalized communities, social mobilizers have been able to enhance literacy rates and empower individuals who may have previously lacked access to formal schooling. This targeted approach has the potential to transform lives and break the cycle of educational deprivation. Reinforcing the institutional foundations of NFE, the analysis highlighted "Institutional Development" as a crucial factor. The establishment of new schools coupled with the integration of skill-based learning has been a strategic priority for social mobilizers. By equipping students with practical, market-relevant competencies, these NFE initiatives aim to provide a more holistic and empowering educational experience.

Complementing the institutional focus, the analysis explored the importance of "Skill Development" within the NFE ecosystem. Social mobilizers have fostered the acquisition of a diverse range of skills including automobile mechanics, agricultural techniques, dressmaking, beautician services and computer literacy. This multifaceted approach enables students to develop a versatile skillset, increasing their employability and economic opportunities. Finally, the analysis delved into the realm of "Performance

Improvement," highlighting the creation of new vacancies and the implementation of continuous monitoring systems. These measures serve to strengthen the institutional capacity and effectiveness of NFE schools, ensuring that they remain responsive to the evolving needs of their communities.

Data analysis underscores the multifaceted challenges and innovative strategies employed by social mobilizers in their pursuit of expanding access to quality education through non-formal channels. By addressing the complex interplay of accessibility, resource provision, educational impact, institutional development, skill cultivation, and performance enhancement, these dedicated individuals are paving the way for more equitable and transformative educational opportunities. As policymakers and practitioners continue to navigate this dynamic landscape, the insights gleaned from this analysis can inform strategic decision-making, resource allocation and collaborative efforts to streamline and marginalize the barriers to non-formal education. Through a holistic and empowered approach, the vision of inclusive and sustainable NFE can be realized, empowering marginalized communities and fostering a more just and prosperous future.

Figure 4.3

Perceptions of Social Mobilizers about Streamlining and Marginalizing



DEOs were asked to give their opinion about how the non-formal education programs could be more accessible to marginalized communities. Some verbatim from DEOs responses are as follows:

1. *To make non-formal education programs more accessible to marginalized communities there should be increase in budget and human resources. Increasing the budget and human resources for non-formal education programs can significantly improve their accessibility for marginalized communities in Punjab.*
2. *By mobilizing the community and establishing schools in locations where teachers are readily available reach and sustainability of these programs may be improved.*
3. *Life skills-based courses and professional development programs may be initiated to cater to the diverse learning needs of students and equip them with the necessary skills for personal and professional growth.*
4. *By aligning the curriculum and program offerings with the skill demands of the local job market, employability and livelihood opportunities for students may be enhanced.*
5. *To address the issue of marginalization, the DEO suggests extending school targets in rural areas to reach out to underserved communities. This contextual adaptation and expansion of non-formal education programs can help bridge the gap between urban and rural areas and ensure more equitable access to quality education.*

4.2.2.1 Role of non-formal education in streamlining and marginalizing in Punjab

District Education Officers (DEOs) play a critical role in overseeing the implementation and effectiveness of non-formal education (NFE) programs in Punjab. Their insights provide valuable perspectives on how NFE programs can streamline educational access and address the marginalization of underserved communities. When asked to share their about the role of NFE in streamlining and marginalizing in Punjab, DEOs highlighted several key themes, data related to these themes is as follows:

i. The Role of NFE in Streamlining Education: DEOs emphasized that NFE programs have the potential to streamline education by addressing gaps in the formal education system and providing flexible learning opportunities for marginalized populations. Specific comments included:

a. Bridging Educational Gaps

DEOs noted that NFE programs play a crucial role in bridging educational gaps by reaching out-of-school children, dropouts, and those who cannot access formal

schooling due to socio-economic or geographic barriers. They highlighted the following points:

- **Flexible Learning Models:** NFE programs offer flexible learning models, such as evening classes, accelerated learning programs, and community-based learning centers, which cater to the diverse needs of learners. This flexibility allows children and adults to continue their education while balancing other responsibilities, such as work or household chores.
- **Second-Chance Education:** NFE provides a second chance for children who have dropped out of formal schools due to poverty, child labor, or early marriages. By offering alternative pathways to education, NFE programs help these children reintegrate into the education system and acquire foundational skills.

b. Complementing Formal Education: DEOs highlighted the complementary role of NFE in supporting the formal education system. They noted that NFE programs can:

- **Prepare Students for Formal Schools:** NFE programs often serve as a bridge to formal education by providing foundational literacy and numeracy skills. This prepares students to transition into mainstream schools and continue their education.
- **Address Overcrowding in Schools:** By providing alternative learning opportunities, NFE programs can reduce the burden on formal schools, particularly in areas where schools are overcrowded or under-resourced.

c. Promoting Lifelong Learning: DEOs emphasized that NFE programs are not limited to children but also cater to adults and youth who missed out on formal education. These programs promote lifelong learning by offering:

- **Adult Literacy Programs:** NFE programs provide basic literacy and numeracy skills to adults, empowering them to participate more actively in their communities and economies.
- **Vocational Training:** Many NFE programs integrate vocational training, equipping learners with practical skills that enhance their employability and income-generating potential.

ii. The Role of NFE in Addressing Marginalization: DEOs acknowledged that NFE programs have the potential to address marginalization by providing educational opportunities to underserved and excluded communities. However, they also

highlighted the challenges that limit the effectiveness of NFE in this regard. Specific comments included:

a. Reaching Marginalized Communities: DEOs noted that NFE programs are uniquely positioned to reach marginalized communities, including:

- **Rural Populations:** NFE programs can establish learning centers in remote rural areas where formal schools are absent or inaccessible.
- **Girls and Women:** By offering safe and supportive learning environments, NFE programs can address cultural barriers and encourage greater participation of girls and women in education.
- **Ethnic and Linguistic Minorities:** NFE programs can provide education in local languages and incorporate culturally relevant content, making education more accessible and meaningful for minority communities.
- **Children with Disabilities:** NFE programs can adopt inclusive practices to ensure that children with disabilities have access to education.

b. Challenges in Addressing Marginalization: Despite its potential, DEOs identified several challenges that hinder the ability of NFE programs to address marginalization effectively. These challenges include:

- **Resource Constraints:** Limited funding and resources often prevent NFE programs from reaching the most marginalized communities or providing quality education.
- **Cultural Resistance:** Deep-rooted cultural norms, such as gender biases or resistance to education, can limit the enrollment and participation of marginalized groups.
- **Lack of Awareness:** Many marginalized communities are unaware of the existence or benefits of NFE programs, leading to low enrollment rates.
- **Geographic Barriers:** The remote and isolated nature of many marginalized communities makes it difficult to establish and sustain NFE centers.

iii. Challenges Faced by NFE Programs: DEOs provided detailed feedback on the challenges faced by NFE programs in streamlining education and addressing marginalization. These challenges include:

a. Teacher Quality and Availability: DEOs identified the shortage of qualified teachers as a major challenge for NFE programs. Key issues include:

- **Lack of Trained Teachers:** Many NFE teachers lack formal training in pedagogy and classroom management, which affects the quality of instruction.

- **High Teacher Turnover:** The temporary or contract-based nature of NFE teaching positions leads to high turnover rates, disrupting the continuity of education for students.

- **Limited Incentives:** Low salaries and lack of career advancement opportunities make it difficult to attract and retain qualified teachers.

b. Infrastructure and Resource Limitations: DEOs highlighted the lack of adequate infrastructure and resources as a significant barrier to the effectiveness of NFE programs. Specific issues include:

- **Poor Learning Spaces:** Many NFE centers operate in inadequate facilities, such as overcrowded classrooms or spaces lacking basic amenities like electricity and clean water.

- **Lack of Teaching Materials:** The absence of textbooks, stationery, and technology tools hampers the quality of education and limits the learning experience for students.

c. Policy and Administrative Challenges: DEOs pointed out systemic issues that hinder the effectiveness of NFE programs, including:

- **Lack of Policy Support:** The absence of a clear policy framework for NFE programs leads to inconsistencies in implementation and resource allocation.

- **Coordination Gaps:** Poor coordination between government agencies, NGOs, and other stakeholders often results in overlapping efforts or gaps in coverage.

- **Weak Monitoring and Evaluation:** The lack of robust monitoring and evaluation systems makes it difficult to assess the impact of NFE programs and identify areas for improvement.

iv. Strategies to Enhance the Role of NFE: DEOs proposed several strategies to enhance the role of NFE in streamlining education and addressing marginalization. These strategies include:

a. Strengthening Policy and Institutional Support: DEOs emphasized the need for a comprehensive policy framework to guide the implementation of NFE programs. Specific recommendations include:

- **Standardization of NFE Programs:** Developing a standardized curriculum and assessment framework for NFE programs to ensure consistency and quality.

- **Recognition of NFE Certificates:** Formal recognition of NFE certificates by educational authorities to enhance the credibility and value of non-formal education.

- **Integration with Formal Education:** Creating pathways for NFE students to transition into formal schools and aligning NFE programs with national education goals.

b. Capacity Building for Teachers and Staff: DEOs recommended several initiatives to improve teacher quality and availability, including:

- **Teacher Training Programs:** Providing specialized training for NFE teachers in pedagogy, classroom management, and the unique needs of non-formal learners.
- **Recruitment of Local Teachers:** Hiring teachers from local communities to ensure cultural relevance and improve retention rates.
- **Incentives for Teachers:** Offering financial and non-financial incentives, such as higher salaries, allowances, and career advancement opportunities, to attract and retain qualified teachers.

c. Improving Infrastructure and Resources: DEOs called for increased investment in NFE programs to address resource constraints and improve infrastructure. Specific recommendations include:

- **Building Schools in Remote Areas:** Constructing NFE centers in remote and underserved areas to ensure that children do not have to travel long distances to access education.
- **Providing Basic Amenities:** Ensuring that NFE centers have access to basic amenities such as electricity, clean water, and sanitation to create a conducive learning environment.
- **Using Technology:** Leveraging technology, such as mobile schools or digital learning tools, to reach children in geographically isolated areas.

d. Promoting Community Engagement: DEOs highlighted the importance of community involvement in the success of NFE programs. Specific recommendations include:

- **Awareness Campaigns:** Launching awareness campaigns to highlight the benefits of NFE and encourage greater participation.
- **Parental Involvement:** Engaging parents in the education process through regular meetings, workshops, and initiatives to address barriers to education.
- **Collaboration with Local Leaders:** Working with community leaders and influencers to build trust and address cultural barriers.

4.2.2.2 Possibilities to make NFEPs more accessible to marginalized communities

Non-formal education (NFE) programs are a critical tool for addressing educational disparities and providing learning opportunities to marginalized communities in Punjab, particularly in South Punjab. These communities often face significant barriers to accessing formal education, including poverty, geographic isolation, cultural norms, and systemic inequities. To ensure that NFE programs effectively reach and serve these populations, District Education Officers (DEOs) play a pivotal role in identifying strategies to enhance accessibility. This qualitative data analysis indicated the DEOs responses to make NFE programs more accessible to marginalized communities. Detailed data analysis based on the themes derived from responses is as follows:

i. Understanding Marginalized Communities in Punjab: Before addressing accessibility, it is essential to understand the unique challenges faced by marginalized communities in Punjab. These communities include:

- a. Rural Populations:** Many rural areas in South Punjab lack adequate educational infrastructure, such as schools, roads, and transportation, making it difficult for children to access formal education.
- b. Low-Income Families:** Poverty often forces children to work instead of attending school, particularly in agricultural and informal labor sectors.
- c. Girls and Women:** Cultural norms, early marriages, and safety concerns disproportionately affect girls' access to education.
- d. Ethnic and Linguistic Minorities:** Communities that speak minority languages or belong to marginalized ethnic groups often face discrimination and lack access to culturally relevant education.
- e. Children with Disabilities:** Children with disabilities are frequently excluded from formal education due to a lack of inclusive infrastructure and support systems.

DEOs emphasized that addressing these challenges requires a multi-faceted approach tailored to the specific needs of each community.

ii. Strategies to Enhance Accessibility: DEOs proposed several strategies to make NFE programs more accessible to marginalized communities. These strategies can be grouped into the following themes:

a. Community Engagement and Awareness: DEOs highlighted the importance of engaging with marginalized communities to build trust, address cultural barriers, and raise awareness about the benefits of education. Specific strategies include:

- **Involving Local Leaders:** Engaging community leaders, elders, and influencers to advocate for education and address resistance. These leaders can play a crucial role in mobilizing communities and encouraging enrollment.
- **Awareness Campaigns:** Launching targeted awareness campaigns to highlight the value of education and dispel misconceptions about NFE programs. These campaigns can use local media, community meetings, and door-to-door outreach to reach marginalized populations.
- **Parental Involvement:** Encouraging parents, particularly mothers, to participate in the education process. This can include parent-teacher meetings, workshops, and initiatives to address barriers such as child labor or early marriages.

b. Flexible and Inclusive Learning Models: DEOs emphasized the need for flexible and inclusive learning models that cater to the unique needs of marginalized communities. Specific strategies include:

- **Community-Based Learning Centers:** Establishing NFE centers within or near marginalized communities to reduce travel time and costs. These centers can be set up in community buildings, mosques, or even private homes.
- **Flexible Timings:** Offering classes at times that accommodate the schedules of working children and adults, such as evening or weekend classes.
- **Accelerated Learning Programs:** Providing accelerated learning programs for out-of-school children and dropouts to help them catch up to their grade level and transition into formal education.
- **Multilingual Education:** Developing curricula and teaching materials in local languages to ensure that linguistic minorities can access education in their mother tongue.

c. Addressing Socio-Economic Barriers: DEOs identified poverty as a major barrier to education and suggested several strategies to address socio-economic challenges, including:

- **Providing Financial Support:** Offering stipends, scholarships, or conditional cash transfers to low-income families to offset the opportunity cost of sending children to school.

- **Providing Free Resources:** Supplying free textbooks, stationery, uniforms, and meals to reduce the financial burden on families.

- **Vocational Training:** Integrating vocational training into NFE programs to provide students with practical skills that can help them earn a livelihood while continuing their education.

d. Improving Infrastructure and Resources: DEOs emphasized the need to improve infrastructure and allocate resources to make NFE programs more accessible. Specific strategies include:

- **Building Schools in Remote Areas:** Constructing NFE centers in remote and underserved areas to ensure that children do not have to travel long distances to access education.
- **Providing Basic Amenities:** Ensuring that NFE centers have access to basic amenities such as electricity, clean water, and sanitation to create a conducive learning environment.
- **Using Technology:** Leveraging technology, such as mobile schools or digital learning tools, to reach children in geographically isolated areas.

e. Promoting Gender Equality: DEOs highlighted the need to address gender disparities in education and make NFE programs more accessible to girls and women. Specific strategies include:

- **Girls-Only Schools:** Establishing girls-only NFE centers to provide a safe and supportive learning environment for female students.
- **Female Teachers:** Recruiting more female teachers, particularly in rural areas, to address cultural barriers and encourage greater enrollment of girls.
- **Awareness Programs:** Launching awareness programs to challenge gender stereotypes and promote the importance of girls' education.

f. Strengthening Policy and Institutional Support: DEOs emphasized the need for policy reforms and institutional support to enhance the accessibility of NFE programs. Specific strategies include:

- **Developing Inclusive Policies:** Creating policies that specifically address the needs of marginalized communities, such as inclusive education frameworks for children with disabilities or minority language education policies.
- **Increasing Funding:** Allocating greater funding to NFE programs to ensure that they have the resources needed to reach marginalized populations.

- **Coordination with Stakeholders:** Improving coordination between government agencies, NGOs, and community organizations to ensure that NFE programs are aligned with the needs of marginalized communities.

iii. Challenges in Implementing Accessibility Strategies: While DEOs proposed several strategies to enhance accessibility, they also identified challenges in implementing these strategies, including:

- Limited Resources:** The lack of adequate funding and resources often hinders the implementation of accessibility initiatives.
- Cultural Resistance:** Deep-rooted cultural norms and resistance to change can make it difficult to implement strategies such as girls' education or multilingual curricula.
- Geographic Barriers:** The remote and isolated nature of many marginalized communities makes it challenging to establish NFE centers and provide basic amenities.
- Lack of Awareness:** Low levels of awareness about the benefits of education among marginalized communities can limit enrollment and participation in NFE programs.

iv. Recommendations for Enhancing Accessibility: To address these challenges and make NFE programs more accessible, DEOs proposed the following recommendations:

- Targeted Interventions:** Developing targeted interventions that address the specific needs of marginalized communities, such as mobile schools for nomadic populations or evening classes for working children.
- Capacity Building:** Providing training and capacity-building programs for teachers, community leaders, and parents to ensure that they can support NFE programs effectively.
- Monitoring and Evaluation:** Establishing robust monitoring and evaluation systems to track the progress of accessibility initiatives and identify areas for improvement.
- Advocacy and Awareness:** Launching advocacy campaigns to raise awareness about the importance of education and mobilize support for NFE programs among policymakers, donors, and communities.

4.2.2.3 Specific skills or knowledge areas that should be the focus of NFEs

The question posed to District Education Officers (DEOs) in Punjab—"Are there any specific skills or knowledge areas that you believe should be the focus of non-formal education programs for marginalized communities in Punjab?"—elicited a range of insightful responses. These responses highlighted the critical role of non-formal education (NFE) in addressing the unique needs of marginalized communities, particularly in a region like Punjab, where socio-economic disparities, cultural barriers, and limited access to formal education persist. This qualitative analysis synthesized the perspectives of DEOs, identifying key themes and focus areas that emerged from their responses. One DEO noted, "*Without basic literacy, individuals are trapped in a cycle of poverty and dependency. Non-formal education must first address this gap to empower marginalized groups.*" Another DEO stated, "*Marginalized communities need skills that can translate into immediate income generation. Tailoring, carpentry, electrical work, and small-scale business management are some areas that can make a tangible difference.*" Another respondent remarked that, "*Even basic tasks like applying for government schemes or banking services require digital literacy. Non-formal education must bridge this digital divide.*" One DEO explained, "*Many health issues in marginalized communities stem from a lack of awareness. Simple practices like hand washing, vaccination, and balanced diets can have a profound impact on overall well-being.*" Additionally another respondent noted that, "*Marginalized communities often remain unaware of the schemes and policies designed for their benefit. Non-formal education can play a crucial role in bridging this information gap.*" Detailed data analysis is as follows:

i. Foundational Literacy and Numeracy: A recurring theme in the responses was the importance of foundational literacy and numeracy as the cornerstone of non-formal education programs. DEOs emphasized that many marginalized communities, particularly in rural and peri-urban areas of Punjab, lack basic reading, writing, and arithmetic skills. This deficiency limits their ability to access further education, secure employment, and participate fully in society. The DEOs suggested that NFE programs should adopt flexible, learner-centered approaches to teach literacy and numeracy. For instance, programs could integrate local languages and culturally relevant materials to make learning more accessible and engaging.

Additionally, the use of community-based facilitators who understand the local context was highlighted as a key strategy for improving learning outcomes.

- ii. Vocational and Livelihood Skills:** Another prominent theme was the need for vocational and livelihood skills training. DEOs pointed out that marginalized communities often face unemployment or underemployment due to a lack of marketable skills. Non-formal education programs, they argued, should focus on equipping individuals with skills that align with local economic opportunities. For example, in agrarian regions of Punjab, training in modern farming techniques, animal husbandry, and agro-based entrepreneurship could significantly improve livelihoods. The respondents also stressed the importance of linking NFE programs with local industries and markets to ensure that the skills taught are relevant and demand-driven.
- iii. Digital Literacy and Technological Skills:** In an increasingly digital world, the lack of digital literacy among marginalized communities was identified as a significant barrier to socio-economic advancement. DEOs highlighted that digital skills are no longer optional but essential for accessing information, services, and opportunities. The DEOs suggested that NFE programs should introduce marginalized communities to basic digital tools, such as smartphones and computers, and teach skills like internet navigation, online safety, and the use of productivity software. Additionally, they emphasized the potential of digital platforms to deliver NFE content, especially in remote areas where traditional classroom-based education is not feasible.
- iv. Health and Hygiene Awareness:** Health and hygiene emerged as a critical area of focus, particularly in light of the COVID-19 pandemic and the persistent challenges of malnutrition and preventable diseases in marginalized communities. DEOs argued that NFE programs should incorporate modules on basic health education, including nutrition, sanitation, maternal and child health, and disease prevention. The respondents also highlighted the need for collaboration with healthcare providers and NGOs to deliver health education effectively.
- v. Civic and Legal Awareness:** The lack of civic and legal awareness among marginalized communities was identified as a barrier to their empowerment and participation in democratic processes. DEOs emphasized that NFE programs should educate individuals about their rights, responsibilities, and the functioning of government institutions. Topics such as voting rights, access to social welfare

schemes, and legal recourse against discrimination were suggested as key components of civic education. The respondents also stressed the importance of fostering a sense of agency and advocacy among learners, enabling them to demand their rights and hold authorities accountable.

vi. Gender-Sensitive Education: Gender sensitivity was a cross-cutting theme in the responses, reflecting the unique challenges faced by women and girls in marginalized communities. DEOs highlighted that NFE programs must address gender-based disparities in access to education and economic opportunities. This includes providing safe learning environments for women, challenging patriarchal norms, and promoting gender equality. Specific suggestions included offering childcare facilities during classes, tailoring programs to women's schedules, and incorporating modules on women's rights and financial literacy.

vii. Cultural and Environmental Awareness: DEOs emphasized the importance of integrating cultural and environmental awareness into NFE programs. They argued that education should not only equip individuals with practical skills but also foster a sense of identity and responsibility towards their community and environment. For instance, programs could include modules on local history, traditions, and sustainable practices. The DEOs also suggested incorporating practical activities like tree planting, waste management, and water conservation to instill a sense of environmental responsibility.

viii. Challenges and Recommendations: While the DEOs identified several focus areas for NFE programs, they also acknowledged the challenges in implementing these programs effectively. These challenges include limited funding, inadequate infrastructure, resistance from conservative communities, and the transient nature of marginalized populations. To address these challenges, the DEOs recommended the following strategies:

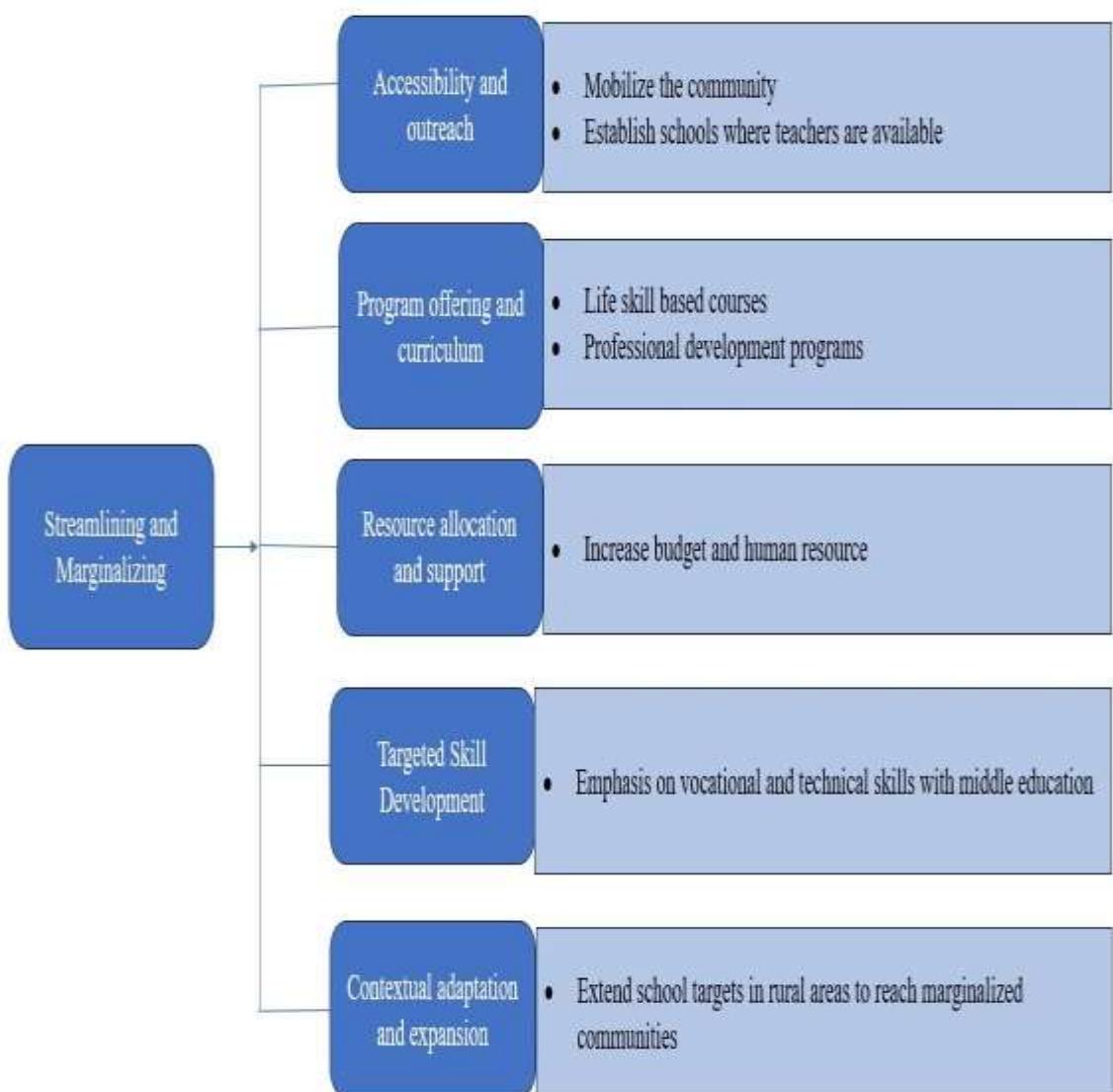
- a. **Community Engagement:** Involving community leaders and members in the design and implementation of NFE programs to ensure cultural relevance and acceptance.
- b. **Public-Private Partnerships:** Collaborating with NGOs, private sector actors, and international organizations to mobilize resources and expertise.
- c. **Monitoring and Evaluation:** Establishing robust mechanisms to track the impact of NFE programs and make data-driven improvements.

d. **Flexible Delivery Models:** Utilizing mobile schools, evening classes, and digital platforms to reach learners who cannot attend traditional classes.

The thematic analysis highlights the holistic approach proposed by the DEOs which recognizes the interconnected nature of the challenges and the need for a systematic and coordinated response. By addressing the issues of accessibility, curriculum, resources and skill development, there is possibility to create a more inclusive and empowering educational ecosystem for students and communities. The insights gained from this analysis can inform policymakers, education planners and stakeholders to strengthen the effectiveness and impact of non-formal basic education programs. Pictorial description of DEOs responses is as follows:

Figure 4.4

Perceptions of DEOs about Streamlining and marginalizing



4.2.3 Role of Non-Formal Education programs in scaling up functional literacy for the students

Third research question was “How effective are Non-Formal Education programs in scaling up functional literacy for the students?”. Data related to this question were collected from teachers through interviews. Detailed data analysis is as follows:

It was asked from teachers that what could be done to further enhance the role of non-formal education programs in scaling up functional literacy in Punjab. 37% teachers said that *there is need to provide learning material for student*. 27% teachers said that there is need to provide furniture for schools and students. 23% teachers stated that there is need to arrange teacher trainings. While only 13% teachers said that there is need to increase the salaries of teachers to enhance the role of non-formal education programs in scaling up functional literacy. Teachers’ views were explored about the specific areas or sectors; where non-formal education programs should be start to enhance functional literacy. The data indicated that 27% teachers stated that non-formal education programs should start at district jail. 25% teachers indicated that non-formal education programs should start at Bait-ul-Mal.size.31% teachers described that non-formal education programs should be started at Darul Aman, while 16% teachers said that non-formal schools should be start at workshops for labor children.

It was asked from teachers that how they perceive the collaboration between non-formal education programs and relevant stakeholders (such as government, NGOs, or community organizations) in Punjab to promote functional literacy. The data indicated that according to 48% teachers NGOs can help non-formal education programs by providing supplies. 33% teachers stated that NGOs can help non-formal education programs by providing facilities at schools, while 18% teachers said that NGOs can help non-formal education programs by providing learner and student kits. Teachers’ views were taken about strategies to strengthen the impact of non-formal education programs on functional literacy in Punjab.

The data indicated that 49% teachers stated that *there should be increase in salary to strengthen the impact of non-formal education programs on functional literacy in Punjab*. 34% teachers described that facilities should be provide at schools to strengthen the impact of non-formal education programs on functional literacy in

Punjab, while 22% teachers said that supplies should be provided at schools to strengthen the impact of non-formal education programs on functional literacy in Punjab. Teachers were asked about key benefits of non-formal education programs for scaling up functional literacy in Punjab. 51% teachers stated that non-formal education programs are providing education at door step to children, while 49% teachers said that non-formal education programs are providing literacy at deprived areas. Key themes derived from that data are as follows:

Figure 4.5

Scaling Up Functional Literacy



The thematic analysis of the scaling up functional literacy highlights several important considerations for enhancing the ability of non-formal education programs to scale up functional literacy in the region. A central factor is the need for Program Enhancement to bolster the quality and sustainability of these initiatives. One key sub factor is the Provision of Learning Materials. Teachers emphasized the importance of ensuring non-formal classes have adequate textbooks, workbooks, stationery and other essential instructional resources. Without these basic teaching tools, the programs will struggle to deliver effective literacy and numeracy instruction. Similarly, the Provision of Furniture, such as desks, chairs and storage were cited as crucial for creating conducive learning environments. Teachers also underscored the value of Increasing Salaries and providing more Teacher Training opportunities. Low compensation and limited professional development were identified as major barriers to recruiting and retaining high-quality instructors. Addressing these workforce challenges is vital, as qualified, motivated teachers are the foundation for scaling up functional literacy through non-formal education.

Another important factor highlighted in the data is the need for targeted interventions to reach specific underserved populations. Examples provided include programs in district jails, bait-ul-mal facilities, dar-ul-aman shelters as well as specialized boat schools and Driver Schools. Tailoring non-formal literacy initiatives to the unique needs of marginalized groups, such as prisoners, the ultra-poor, women in crisis, and transportation workers can help expand access and impact. The analysis also surfaced key Policy Recommendations such as Providing Supplies at Schools and Improving Facilities. Ensuring that both formal and non-formal educational institutions have the necessary resources from learning materials to infrastructure, emerged as a critical enabler for scaling functional literacy. Establishing stronger linkages and resource-sharing between the two systems could yield significant benefits.

4.2.4 Role of NFE Programs in Developing Vocational and Technical Skills among Students

Fourth research question was “what is the role of Non-Formal Education programs in developing vocational and technical skills among students?”. Data related to this question were collected from DEOs through interview. Some verbatim from DEOs responses are as follows:

1. *There are no technical training institutes in the community which work as barrier for individual in accessing and participating in non-formal education programs.*
2. *There is need to appoint technical and vocational skills teachers to enhance the role of non-formal education programs in developing technical and vocational skills in Punjab.*
3. *Beautician, cooking, motorcycle mechanic courses should be focused*
4. *Sewing, handicrafts, plumber courses to enhance the technical and vocational skills in Punjab through non-formal education programs.*
5. *There is need to make collaboration with technical and vocational training institutes to enhance the level of technical and vocational skills through non-formal education programs in Punjab.*

Detailed data analysis based on DEOs responses regarding role of NFE programs in developing vocational and technical skills is as follows:

4.2.4.1 Benefits of NFE programs for developing technical and vocational skills

The question posed to District Education Officers (DEOs) in Punjab—"In your opinion, what are the key benefits of non-formal education programs for developing technical and vocational skills in Punjab?"—yielded fruitful insights into the transformative potential of non-formal education (NFE) in addressing the skill gaps and socio-economic challenges faced by marginalized and underserved populations. The responses highlighted the unique advantages of NFE in fostering technical and vocational skills, which are critical for improving employability, enhancing livelihoods, and promoting inclusive economic growth. This qualitative analysis synthesized the perspectives of DEOs, detail of data related to identify key themes is as follows:

- i. Accessibility and Inclusivity:** One of the most frequently cited benefits of non-formal education programs is their ability to reach populations that are often excluded from formal education systems. DEOs emphasized that marginalized

communities, including out-of-school youth, women, and individuals from low-income households, face significant barriers to accessing formal technical and vocational education and training (TVET). These barriers include high costs, rigid admission criteria, and geographical constraints. Non-formal education programs, by contrast, are designed to be more accessible and inclusive. They often operate in community settings, use local languages, and offer flexible schedules to accommodate learners' needs. This inclusivity ensures that even the most disadvantaged groups can acquire technical and vocational skills, thereby leveling the playing field and promoting social equity.

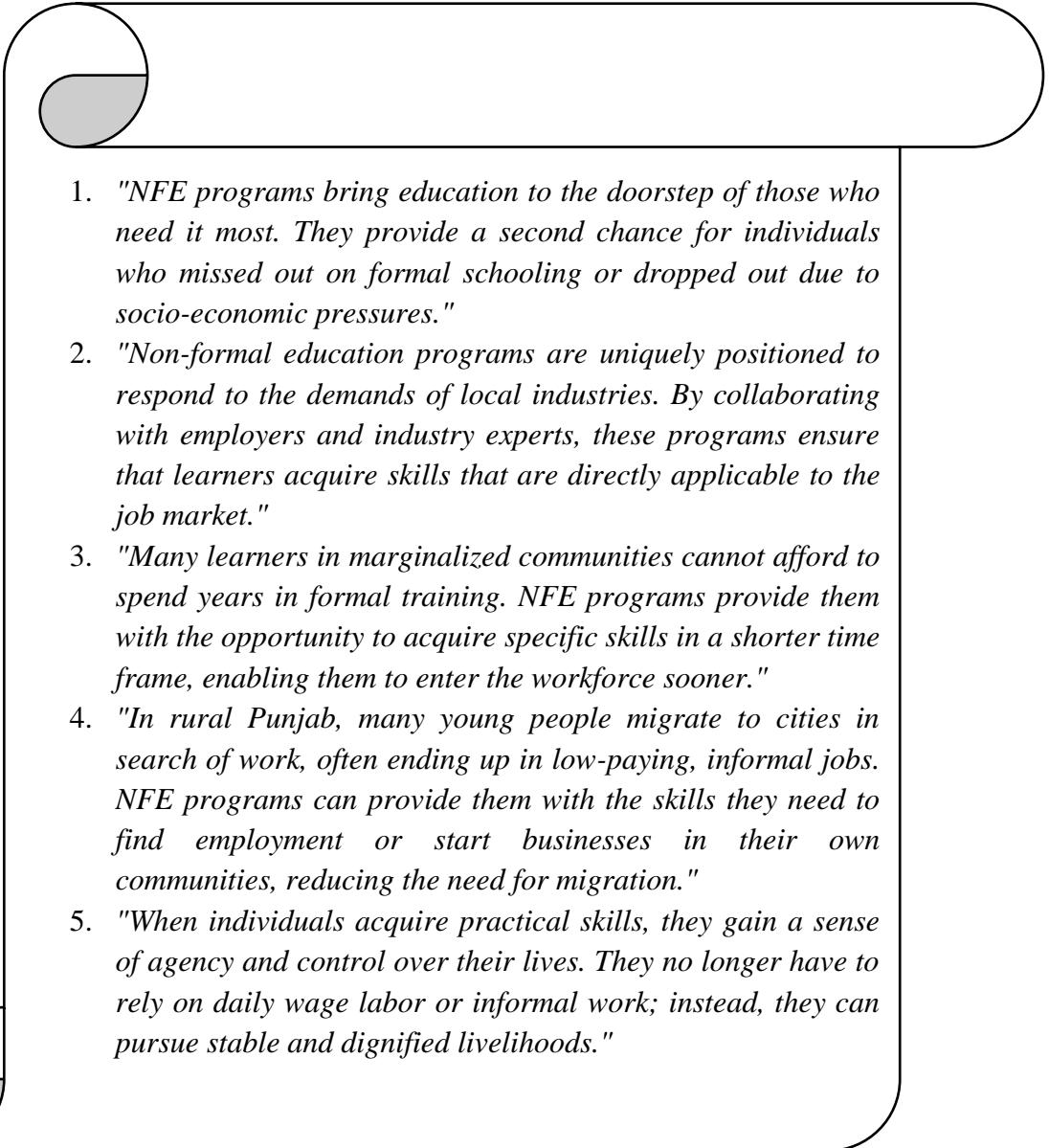
- ii. **Relevance to Local Economies:** DEOs highlighted the importance of aligning technical and vocational training with the needs of local economies. Unlike formal education systems, which often follow standardized curricula, NFE programs can be tailored to address specific skill gaps and economic opportunities in a given region. For instance, in Punjab's agrarian communities, NFE programs might focus on modern farming techniques, agro-processing, and livestock management, while in urban areas, they could emphasize skills like tailoring, plumbing, and electrical work. This relevance not only enhances employability but also contributes to local economic development by creating a skilled workforce that meets the needs of businesses and industries.
- iii. **Flexibility and Adaptability:** The flexibility of non-formal education programs was another key benefit identified by DEOs. Unlike formal TVET institutions, which often have rigid structures and timelines, NFE programs can adapt to the diverse needs and circumstances of learners. For example, they can offer short-term courses, modular training, or part-time options to accommodate individuals who are already working or have family responsibilities. Additionally, the adaptability of NFE programs allows them to incorporate emerging technologies and industry trends, ensuring that learners remain competitive in a rapidly changing job market.
- iv. **Empowerment and Self-Reliance:** DEOs emphasized that non-formal education programs play a crucial role in empowering individuals and fostering self-reliance. By equipping learners with technical and vocational skills, these programs enable them to secure gainful employment, start their own businesses, or improve their existing livelihoods. This economic empowerment, in turn, enhances their confidence, independence, and ability to contribute to their families and communities. The DEOs also highlighted the psychological and social benefits of

empowerment, noting that skilled individuals are more likely to advocate for their rights and participate actively in community development initiatives.

- v. **Bridging the Urban-Rural Divide:** The urban-rural divide in access to education and employment opportunities is a persistent challenge in Punjab. DEOs pointed out that formal TVET institutions are often concentrated in urban areas, making it difficult for rural populations to access quality training. Non-formal education programs, however, can bridge this gap by bringing technical and vocational training to rural and remote areas. By decentralizing skill development, NFE programs contribute to balanced regional development and help address the socio-economic disparities between urban and rural areas.
- vi. **Fostering Entrepreneurship:** Another significant benefit of non-formal education programs is their potential to foster entrepreneurship. DEOs noted that many marginalized individuals lack the resources and knowledge to start their own businesses, despite having innovative ideas and a strong work ethic. NFE programs can address this gap by providing training in business planning, financial management, and marketing, in addition to technical skills. The respondents also highlighted the importance of providing post-training support, such as access to microfinance and mentorship, to ensure the sustainability of entrepreneurial ventures.
- vii. **Complementing Formal Education Systems:** DEOs emphasized that non-formal education programs do not operate in isolation but rather complement formal education systems. For individuals who have completed formal schooling but lack practical skills, NFE programs offer an opportunity to enhance their employability. Conversely, for those who dropped out of school, these programs provide an alternative pathway to skill development and economic participation. The integration of NFE with formal education systems can also facilitate the recognition and certification of non-formal learning, enhancing its value and credibility in the job market.
- viii. **Challenges and Recommendations:** While the DEOs highlighted numerous benefits of non-formal education programs, they also acknowledged the challenges in realizing their full potential. These challenges include limited funding, inadequate infrastructure, a lack of qualified trainers, and the stigma associated with non-formal education. To address these challenges, the DEOs recommended the following strategies:

- a. **Increased Investment:** Allocating more resources to NFE programs to improve their quality and reach.
- b. **Capacity Building:** Training and certifying trainers to ensure the delivery of high-quality technical and vocational education.
- c. **Public Awareness Campaigns:** Raising awareness about the value of NFE and challenging misconceptions that it is inferior to formal education.
- d. **Partnerships:** Collaborating with NGOs, private sector actors, and international organizations to leverage expertise and resources.
- e. **Monitoring and Evaluation:** Establishing robust mechanisms to assess the impact of NFE programs and make data-driven improvements.

Some verbatim from DEOs responses are as follows:



1. *"NFE programs bring education to the doorstep of those who need it most. They provide a second chance for individuals who missed out on formal schooling or dropped out due to socio-economic pressures."*
2. *"Non-formal education programs are uniquely positioned to respond to the demands of local industries. By collaborating with employers and industry experts, these programs ensure that learners acquire skills that are directly applicable to the job market."*
3. *"Many learners in marginalized communities cannot afford to spend years in formal training. NFE programs provide them with the opportunity to acquire specific skills in a shorter time frame, enabling them to enter the workforce sooner."*
4. *"In rural Punjab, many young people migrate to cities in search of work, often ending up in low-paying, informal jobs. NFE programs can provide them with the skills they need to find employment or start businesses in their own communities, reducing the need for migration."*
5. *"When individuals acquire practical skills, they gain a sense of agency and control over their lives. They no longer have to rely on daily wage labor or informal work; instead, they can pursue stable and dignified livelihoods."*

4.2.4.2 Major challenges faced by individuals in accessing NFE programs for technical and vocational skills development

The question posed to District Education Officers (DEOs) in Punjab—"What are the major challenges or barriers faced by individuals in accessing and participating in non-formal education programs for technical and vocational skills development in Punjab?"—revealed a complex web of socio-economic, cultural, and structural obstacles that hinder the effectiveness of non-formal education (NFE) programs, particularly in the context of South Punjab. South Punjab, comprising districts such as Multan, Bahawalpur, and Dera Ghazi Khan, is characterized by high poverty rates, limited infrastructure, and deep-rooted gender disparities. These factors exacerbate the challenges faced by marginalized communities in accessing and benefiting from NFE programs. This qualitative analysis synthesized the perspectives of DEOs, identified themes and their description is as follows:

- i. Socio-Economic Constraints:** One of the most significant barriers identified by DEOs is the pervasive poverty and economic instability in South Punjab. Many individuals from marginalized communities cannot afford to participate in NFE programs due to the direct and indirect costs involved, such as transportation, materials, and the opportunity cost of foregone income. Additionally, the lack of financial support mechanisms, such as stipends or scholarships, further limits participation. DEOs emphasized that without addressing these economic barriers, NFE programs will continue to exclude the very populations they aim to serve.
- ii. Cultural and Gender-Based Barriers:** Cultural norms and gender disparities play a significant role in restricting access to NFE programs, particularly for women and girls in South Punjab. DEOs highlighted that conservative attitudes often discourage female participation in education and training, especially in fields perceived as male-dominated, such as technical and vocational skills. For men, cultural expectations around immediate income generation can also be a barrier. Young men are often pressured to enter the workforce at an early age, leaving little time or incentive for skill development. These cultural and gender-based barriers perpetuate cycles of poverty and inequality, limiting the transformative potential of NFE programs.
- iii. Lack of Awareness and Information:** A recurring theme in the responses was the lack of awareness about NFE programs and their benefits. Many individuals in South Punjab are unaware of the existence of such programs or do not understand

how they can improve their livelihoods. The lack of awareness is compounded by low literacy rates and limited access to communication channels, such as the internet and social media. DEOs stressed the need for targeted outreach campaigns to inform communities about NFE opportunities and their potential impact.

- iv. **Inadequate Infrastructure and Resources:** The lack of adequate infrastructure and resources was identified as a major barrier to the implementation and accessibility of NFE programs in South Punjab. Many areas lack proper training centers, equipment, and materials, making it difficult to deliver quality technical and vocational education. Additionally, the shortage of qualified trainers and facilitators further undermines the quality of NFE programs. DEOs highlighted that many trainers lack the technical expertise and pedagogical skills required to effectively teach vocational subjects, leading to subpar learning outcomes.
- v. **Geographical and Accessibility Issues:** The geographical dispersion of populations in South Punjab poses significant challenges for the delivery of NFE programs. Many rural and remote areas are difficult to access due to poor road networks and limited public transportation. This makes it challenging for individuals to attend training sessions, particularly those held in urban centers. To address this issue, DEOs suggested decentralizing NFE programs and establishing mobile training units that can reach underserved areas. However, they also acknowledged the logistical and financial challenges of implementing such initiatives.
- vi. **Quality and Relevance of Training:** The quality and relevance of training offered by NFE programs were identified as critical factors influencing participation and outcomes. DEOs noted that many programs fail to align with the needs of local labor markets, resulting in skills that are either outdated or irrelevant. Additionally, the lack of standardized curricula and certification mechanisms undermines the credibility of NFE programs. DEOs emphasized the need for industry partnerships and market-driven curricula to ensure that training is both high-quality and relevant.
- vii. **Systemic and Policy-Related Challenges:** DEOs highlighted systemic and policy-related challenges that hinder the effectiveness of NFE programs. These include a lack of coordination among government agencies, insufficient funding, and the absence of a comprehensive policy framework for non-formal education. The lack of monitoring and evaluation mechanisms further exacerbates these issues, making it difficult to assess the impact of NFE programs and identify areas for

improvement. DEOs called for greater political will and investment in NFE, as well as the development of a coherent policy framework to guide its implementation.

viii. Recommendations for Addressing Challenges: Based on the insights provided by DEOs, the following recommendations are proposed to address the challenges and barriers faced by individuals in accessing and participating in NFE programs in South Punjab:

- a. Financial Support:** Introduce stipends, scholarships, and income replacement schemes to reduce the economic burden on participants.
- b. Community Engagement:** Work with local leaders and influencers to challenge cultural norms and promote the value of education, particularly for women and girls.
- c. Awareness Campaigns:** Use community radio, local media, and door-to-door outreach to inform marginalized populations about NFE opportunities.
- d. Infrastructure Development:** Invest in the construction and equipping of training centers, particularly in rural and remote areas.
- e. Mobile Training Units:** Develop mobile training units to deliver NFE programs directly to underserved communities.
- f. Industry Partnerships:** Collaborate with local industries to design market-driven curricula and provide internship and job placement opportunities.
- g. Policy Framework:** Develop a comprehensive policy framework for NFE that promotes coordination, standardization, and accountability.

Some verbatim from DEOs responses are as follows:

1. *"For daily wage laborers and low-income families, even a few hours away from work can mean the difference between having a meal or going hungry. This makes it extremely difficult for them to prioritize education."*
2. *"In many communities, women are expected to prioritize household responsibilities over education. Even when they are allowed to attend programs, they face resistance from family members and societal judgment."*
3. *"Even when programs are available, they often go underutilized because people don't know about them or don't see their value. This is especially true in rural areas where information dissemination is weak."*
4. *"In some districts, we don't even have basic facilities like electricity and clean water, let alone the tools and machines needed for vocational training."*
5. *"For someone living in a remote village, traveling to a training center in the city can be prohibitively expensive and time-consuming. This discourages many from participating."*

4.2.4.3 Positive impact of non-formal education programs on the development of technical and vocational skills among individuals

The question posed to District Education Officers (DEOs) in Punjab—"Have you observed any positive impact of non-formal education programs on the development of technical and vocational skills among individuals in Punjab?"—elicited a range of affirmative and insightful responses. These responses highlighted the transformative potential of non-formal education (NFE) programs in equipping individuals with technical and vocational skills, thereby enhancing their employability, livelihoods, and socio-economic status. This qualitative analysis synthesized the perspectives of DEOs, identified key themes along with detailed description are as follows:

- i. Improved Employability and Income Generation:** One of the most significant positive impacts observed by DEOs is the improvement in employability and

income generation among participants of NFE programs. By providing practical, market-relevant skills, these programs enable individuals to secure better-paying jobs in both formal and informal sectors. DEOs highlighted that NFE programs often focus on high-demand skills, such as tailoring, plumbing, electrical work, and computer literacy, which align with the needs of local labor markets. This alignment ensures that participants can quickly transition from training to employment, thereby addressing the issue of youth unemployment and underemployment in Punjab.

- ii. **Empowerment of Marginalized Groups:** NFE programs have been particularly impactful in empowering marginalized groups, including women, rural populations, and individuals from low-income households. DEOs observed that these programs provide a second chance for individuals who were excluded from or unable to complete formal education. By equipping marginalized groups with technical and vocational skills, NFE programs challenge traditional gender roles and socio-economic hierarchies. For instance, women who participate in tailoring or embroidery programs often gain financial independence and a stronger voice in household decision-making. Similarly, rural youth who acquire agricultural or technical skills are better positioned to improve their livelihoods and break the cycle of poverty.
- iii. **Reduction in Urban-Rural Disparities:** DEOs emphasized that NFE programs play a crucial role in reducing the urban-rural divide in access to education and employment opportunities. In rural areas of Punjab, where formal educational institutions and vocational training centers are scarce, NFE programs serve as a vital alternative. This decentralization of skill development not only improves livelihoods in rural areas but also contributes to balanced regional development. DEOs noted that many rural participants of NFE programs have been able to find employment or start businesses in their local communities, reducing the pressure on urban centers and addressing issues such as overcrowding and unemployment.
- iv. **Fostering Entrepreneurship and Self-Employment:** Another significant positive impact observed by DEOs is the role of NFE programs in fostering entrepreneurship and self-employment. Many participants use the skills they acquire to start their own small businesses, such as tailoring shops, repair services, or agro-based enterprises. DEOs highlighted that NFE programs often include modules on business planning, financial management, and marketing, which are essential for

entrepreneurial success. Additionally, some programs provide post-training support, such as access to microfinance and mentorship, to help participants establish and sustain their businesses.

- v. Enhanced Social Mobility and Confidence:** The acquisition of technical and vocational skills through NFE programs has a profound impact on individuals' social mobility and self-confidence. DEOs observed that participants often experience a sense of empowerment and pride in their newfound abilities. This enhanced confidence often extends beyond the workplace, influencing participants' social interactions and community involvement. For example, skilled individuals are more likely to advocate for their rights, participate in local governance, and contribute to community development initiatives.
- vi. Contribution to Local Economic Development:** DEOs highlighted that NFE programs contribute to local economic development by creating a skilled workforce that meets the needs of local industries and businesses. By aligning training programs with the demands of the local economy, NFE initiatives ensure that participants can fill critical skill gaps and drive economic growth. In agrarian regions of Punjab, for instance, NFE programs that focus on modern farming techniques and agro-processing have led to increased agricultural productivity and income for farmers. Similarly, in urban areas, programs that train individuals in construction, manufacturing, and services have supported the growth of these sectors.
- vii. Complementing Formal Education Systems:** DEOs observed that NFE programs complement formal education systems by providing an alternative pathway for skill development and economic participation. For individuals who have completed formal schooling but lack practical skills, NFE programs offer an opportunity to enhance their employability. Conversely, for those who dropped out of school, these programs provide a second chance to acquire valuable skills and improve their livelihoods. The integration of NFE with formal education systems, through initiatives such as recognition of prior learning and certification, further enhances the value and credibility of non-formal training.
- viii. Challenges and Recommendations:** While DEOs highlighted numerous positive impacts of NFE programs, they also acknowledged the challenges that limit their effectiveness. These challenges include limited funding, inadequate infrastructure, a lack of qualified trainers, and the stigma associated with non-formal education. To

address these challenges and maximize the positive impacts of NFE programs, the following recommendations are proposed:

- a. Increased Investment:** Allocate more resources to NFE programs to improve their quality, reach, and sustainability.
- b. Capacity Building:** Train and certify facilitators to ensure the delivery of high-quality technical and vocational education.
- c. Public Awareness Campaigns:** Raise awareness about the value of NFE and challenge misconceptions that it is inferior to formal education.
- d. Industry Partnerships:** Collaborate with local industries to design market-driven curricula and provide internship and job placement opportunities.
- e. Monitoring and Evaluation:** Establish robust mechanisms to assess the impact of NFE programs and make data-driven improvements.

Some verbatim from DEOs responses are as follows:

1. *"Many graduates of our non-formal vocational training programs have found employment in local industries, such as textiles, construction, and automotive repair. This has not only improved their income but also reduced their dependence on unstable, low-wage work."*
2. *"For many women in rural areas, non-formal education is the only opportunity they have to learn a skill and contribute to their household income. This has a ripple effect on their families and communities."*
3. *"By bringing technical and vocational training to remote villages, we are giving rural youth the tools they need to succeed without having to migrate to cities."*
4. *"Non-formal education doesn't just create job seekers; it creates job creators. We've seen many individuals use their training to launch successful ventures, which in turn create employment opportunities for others."*
5. *"When individuals gain skills that are valued in the job market, they feel a renewed sense of purpose and confidence. This transformation is especially visible among women and youth from disadvantaged backgrounds."*

4.2.4.4 Strategies to enhance the role of NFE programs in developing technical and vocational skills

The question posed to District Education Officers (DEOs) in Punjab—"In your view, what could be done to further enhance the role of non-formal education programs in developing technical and vocational skills in Punjab?"—elicited a range of strategic and actionable recommendations. These recommendations reflected that the DEOs' deep understanding of the challenges and opportunities associated with non-formal education (NFE) programs, particularly in the context of Punjab's socio-economic landscape. This qualitative analysis synthesized the perspectives of DEOs, identified key themes along with detailed data analysis are as follows:

- i. Increasing Accessibility and Inclusivity:** DEOs emphasized the need to make NFE programs more accessible and inclusive, particularly for marginalized and underserved populations. This includes expanding the reach of programs to rural and remote areas, where access to formal education and training is often limited. To enhance inclusivity, DEOs recommended tailoring programs to meet the specific needs of different demographic groups, such as women, out-of-school youth, and individuals with disabilities. For example, offering flexible schedules, childcare facilities, and gender-sensitive training environments can encourage greater participation among women. Similarly, providing transportation and stipends can help overcome economic barriers for low-income individuals.
- ii. Improving the Quality and Relevance of Training:** The quality and relevance of training were identified as critical factors for the success of NFE programs. DEOs stressed the importance of aligning training curricula with the needs of local labor markets to ensure that participants acquire skills that are in demand. To improve quality, DEOs recommended investing in the training and certification of facilitators, updating training materials and equipment, and incorporating hands-on, practical learning experiences. Additionally, they highlighted the need for regular monitoring and evaluation to assess the effectiveness of programs and make data-driven improvements.
- iii. Fostering Partnerships and Collaborations:** Collaboration with various stakeholders, including government agencies, non-governmental organizations (NGOs), private sector actors, and international organizations, was seen as essential for enhancing the impact of NFE programs. DEOs suggested that partnerships can help mobilize resources, share expertise, and create synergies that benefit

participants. DEOs also recommended establishing industry advisory boards to guide the development of training curricula and ensure that programs meet the needs of employers. Additionally, partnerships with financial institutions can facilitate access to microfinance and other support services for program graduates.

iv. Enhancing Awareness and Outreach: A recurring theme in the responses was the need to enhance awareness and outreach to ensure that NFE programs reach their target audiences. DEOs highlighted that many individuals, particularly in rural areas, are unaware of the existence and benefits of NFE programs. DEOs recommended developing targeted outreach strategies that address the specific barriers faced by different demographic groups. For example, using local languages and culturally relevant messaging can make outreach efforts more effective. Additionally, organizing open houses, demonstrations, and success story showcases can help potential participants see the value of NFE programs.

v. Providing Financial and Logistical Support: Financial and logistical barriers were identified as significant obstacles to participation in NFE programs. DEOs recommended providing financial support, such as stipends, scholarships, and income replacement schemes, to reduce the economic burden on participants. In addition to financial support, DEOs suggested addressing logistical challenges by offering flexible training schedules, providing transportation, and ensuring that training centers are equipped with the necessary facilities and resources. For example, setting up evening or weekend classes can accommodate individuals who are already working or have family responsibilities.

vi. Integrating Technology and Innovation: The integration of technology and innovation was seen as a key strategy for enhancing the effectiveness and reach of NFE programs. DEOs recommended leveraging digital tools and platforms to deliver training content, particularly in areas where access to physical training centers is limited. DEOs also highlighted the potential of technology to improve the quality of training by providing interactive and personalized learning experiences. For example, using e-learning platforms can enable participants to learn at their own pace and access resources such as videos, quizzes, and discussion forums. Additionally, incorporating emerging technologies, such as artificial intelligence and blockchain, can enhance the credibility and recognition of NFE certifications.

vii. Strengthening Policy and Institutional Frameworks: DEOs emphasized the need to strengthen policy and institutional frameworks to support the growth and

sustainability of NFE programs. This includes developing a comprehensive policy framework that outlines the goals, standards, and guidelines for NFE, as well as establishing mechanisms for coordination and accountability among different stakeholders. DEOs also recommended creating a regulatory body to oversee the quality and accreditation of NFE programs, as well as establishing partnerships with formal education institutions to facilitate the recognition and transfer of credits. Additionally, they highlighted the importance of securing long-term funding and political support to ensure the sustainability of NFE initiatives.

Some verbatim from DEOs responses are as follows:



1. *"We need to bring non-formal education to the doorsteps of those who need it most. This means setting up training centers in villages and using mobile units to reach remote communities."*
2. *"We need to work closely with industries to identify skill gaps and design programs that address these gaps. This will make our training more relevant and increase the employability of participants."*
3. *"By working together, we can pool our resources and knowledge to deliver more comprehensive and effective programs. For example, NGOs can provide community outreach, while private companies can offer internships and job placements."*
4. *"We need to use multiple channels to spread the word about our programs, including community radio, local media, and door-to-door campaigns. Engaging community leaders and influencers can also help build trust and encourage participation."*
5. *"For many individuals, the cost of transportation, materials, and lost wages is a major deterrent. Providing financial support can make it easier for them to participate and complete the training."*

4.2.4.5 Specific technical or vocational areas that should be focused in NFE programs

The question posed to District Education Officers (DEOs) in Punjab—"Are there any specific technical or vocational areas where you believe non-formal education programs should focus more to address the skills development needs in Punjab?"—revealed a strong consensus on the need for targeted and context-specific skill development initiatives. The responses highlighted the importance of aligning non-formal education (NFE) programs with the socio-economic realities and labor market demands of Punjab, particularly in light of the region's agrarian economy, industrial potential, and emerging sectors. This qualitative analysis synthesized the perspectives of DEOs, identified key themes along with detailed data analysis are as follows:

i. Agriculture and Agro-Based Industries: Agriculture remains the backbone of Punjab's economy, employing a significant portion of the population, particularly in rural areas. DEOs emphasized the need for NFE programs to focus on modern agricultural techniques, agro-processing, and value-added farming to enhance productivity and income for farmers. Specific areas of focus include:

- a. Crop Management:** Training in crop rotation, soil health management, and pest control.
- b. Agro-Processing:** Skills in food preservation, packaging, and processing to add value to agricultural produce.
- c. Livestock and Dairy Farming:** Techniques for animal husbandry, dairy management, and veterinary care.
- d. Agricultural Entrepreneurship:** Business skills for farmers to explore niche markets, such as organic farming and export-oriented crops.

By equipping farmers and rural youth with these skills, NFE programs can contribute to the modernization and diversification of Punjab's agricultural sector.

ii. Construction and Infrastructure: The construction and infrastructure sector is a major driver of economic growth in Punjab, offering numerous employment opportunities for skilled and semi-skilled workers. DEOs highlighted the need for NFE programs to focus on trades such as masonry, plumbing, electrical work, and carpentry, which are in high demand but often lack trained professionals. Specific areas of focus include:

- a. Building Trades:** Training in bricklaying, tiling, and painting.

- b. **Infrastructure Development:** Skills in road construction, bridge building, and urban planning.
- c. **Safety and Compliance:** Knowledge of occupational safety standards and regulatory requirements.
- d. **Green Construction:** Techniques for energy-efficient and environmentally sustainable building practices.

By addressing the skill gaps in this sector, NFE programs can enhance the quality of infrastructure projects and create stable employment opportunities for workers.

iii. Information Technology and Digital Skills: The rapid growth of the information technology (IT) sector and the increasing digitization of various industries have created a strong demand for digital skills in Punjab. DEOs emphasized the need for NFE programs to focus on basic and advanced IT skills, particularly for youth and women in urban and semi-urban areas. Specific areas of focus include:

- a. **Basic Computer Skills:** Training in operating systems, word processing, and internet navigation.
- b. **Software Development:** Skills in coding, web development, and app design.
- c. **Digital Marketing:** Techniques for social media management, search engine optimization (SEO), and e-commerce.
- d. **Cybersecurity:** Knowledge of data protection and online safety practices.

By equipping individuals with digital skills, NFE programs can enhance their employability in the IT sector and enable them to participate in the digital economy.

iv. Healthcare and Allied Services: The healthcare sector in Punjab is expanding rapidly, driven by population growth and increasing demand for quality medical services. DEOs highlighted the need for NFE programs to focus on healthcare and allied services, particularly in rural areas where access to trained healthcare workers is limited. Specific areas of focus include:

- a. **Paramedical Training:** Skills in first aid, emergency response, and patient care.
- b. **Nursing and Caregiving:** Techniques for elderly care, maternal health, and child care.
- c. **Health Education:** Training in hygiene, nutrition, and disease prevention.
- d. **Medical Equipment Maintenance:** Skills in the repair and maintenance of medical devices.

By training individuals in these areas, NFE programs can improve healthcare delivery and create employment opportunities in the growing healthcare sector.

v. Textiles and Apparel: Punjab has a rich tradition of textile production, and the sector remains a significant source of employment and export revenue. DEOs emphasized the need for NFE programs to focus on skills development in textiles and apparel, particularly for women and youth in urban and rural areas. Specific areas of focus include:

- a. **Weaving and Embroidery:** Training in traditional and modern textile crafts.
- b. **Garment Manufacturing:** Skills in cutting, stitching, and quality control.
- c. **Fashion Design:** Techniques for designing and marketing apparel.
- d. **Sustainable Textiles:** Knowledge of eco-friendly dyeing and production practices.

By equipping individuals with these skills, NFE programs can revitalize Punjab's textile industry and create opportunities for entrepreneurship and export.

vi. Renewable Energy and Green Technologies: The global shift towards renewable energy and sustainable practices presents new opportunities for skill development in Punjab. DEOs highlighted the need for NFE programs to focus on renewable energy and green technologies, particularly in rural areas where access to energy is limited. Specific areas of focus include:

- a. **Solar Energy Installation:** Skills in installing and maintaining solar panels and systems.
- b. **Biogas Production:** Techniques for producing and utilizing biogas from organic waste.
- c. **Energy Efficiency:** Knowledge of energy-saving practices and technologies.

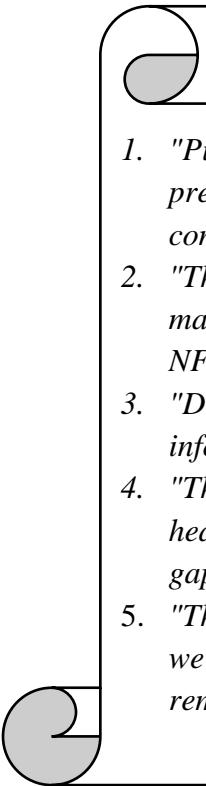
By promoting skills in renewable energy and green technologies, NFE programs can contribute to sustainable development and create new employment opportunities.

vii. Entrepreneurship and Small Business Management: Entrepreneurship is a key driver of economic growth and job creation, particularly in a region like Punjab with a strong tradition of small and medium enterprises (SMEs). DEOs emphasized the need for NFE programs to focus on entrepreneurship and small business management, particularly for youth and women. Specific areas of focus include:

- a. **Business Planning:** Training in developing business plans and securing financing.

- b. **Financial Management:** Skills in budgeting, accounting, and cash flow management.
- c. **Marketing and Sales:** Techniques for promoting products and services.

By equipping individuals with entrepreneurial skills, NFE programs can foster innovation, create jobs, and contribute to economic development. Some verbatim from DEOs responses are as follows:



1. *"Punjab's farmers need training in sustainable farming practices, precision agriculture, and the use of modern machinery to remain competitive in a changing agricultural landscape."*
2. *"There is a huge demand for skilled construction workers, but many lack the formal training required to meet industry standards. NFE programs can fill this gap."*
3. *"Digital literacy is no longer optional; it is essential for accessing information, services, and opportunities in today's world."*
4. *"There is a critical shortage of paramedics, nurses, and community health workers in Punjab. NFE programs can help address this gap."*
5. *"The textile industry offers immense potential for job creation, but we need to train workers in modern techniques and technologies to remain competitive."*

4.2.4.6 Viewpoint about collaboration between NFE programs and industry stakeholders

The question posed to District Education Officers (DEOs) in Punjab—"How do you perceive the collaboration between non-formal education programs and industry stakeholders (employers, trade associations, etc.) in Punjab to promote technical and vocational skills development?"—revealed a strong recognition of the importance of partnerships between non-formal education (NFE) programs and industry stakeholders. The responses highlighted the potential of such collaborations to bridge the gap between education and employment, enhance the relevance of training programs, and create sustainable pathways for skills development. This qualitative analysis synthesized the perspectives of DEOs, identified key themes along with detailed data analysis are as follows:

i. Alignment with Industry Needs: DEOs emphasized that collaboration with industry stakeholders is essential for ensuring that NFE programs align with the needs of the labor market. By working closely with employers and trade associations, NFE programs can identify emerging skill gaps and design curricula that address these gaps. Specific benefits of this alignment include:

- a. Demand-Driven Curricula:** Training programs that focus on skills in high demand, such as digital literacy, advanced manufacturing, and healthcare.
- b. Industry-Relevant Certifications:** Credentials that are recognized and valued by employers, enhancing the employability of graduates.
- c. Real-World Applications:** Practical training that prepares participants for the challenges and expectations of the workplace.

By aligning with industry needs, NFE programs can ensure that their graduates are well-prepared to meet the demands of the job market.

ii. Enhancing Employability and Job Placement: Collaboration with industry stakeholders can significantly enhance the employability of NFE program graduates by providing direct pathways to employment. DEOs highlighted the role of industry partnerships in facilitating job placement, internships, and apprenticeships. Specific strategies for enhancing employability include:

- a. Job Fairs and Recruitment Drives:** Events that connect graduates with potential employers.
- b. Internship Programs:** Opportunities for participants to gain hands-on experience in real work environments.
- c. Career Counseling and Mentorship:** Guidance from industry professionals on career planning and job search strategies.

By creating strong linkages between training and employment, NFE programs can improve the job prospects of their participants and contribute to reducing unemployment in Punjab.

iii. Improving the Quality and Relevance of Training: Industry collaboration can play a crucial role in improving the quality and relevance of NFE programs. DEOs highlighted that industry stakeholders can contribute to curriculum development, provide access to state-of-the-art equipment and technologies, and offer insights into best practices and industry standards. Specific contributions from industry stakeholders include:

- a. **Curriculum Development:** Input on the skills and knowledge required for specific roles and industries.
- b. **Training Resources:** Access to equipment, tools, and facilities that enhance the learning experience.
- c. **Guest Lectures and Workshops:** Opportunities for participants to learn directly from industry professionals.

By leveraging the expertise and resources of industry stakeholders, NFE programs can deliver high-quality training that meets the needs of both participants and employers.

- iv. **Fostering Innovation and Technology Transfer:** Collaboration with industry stakeholders can foster innovation and technology transfer, enabling NFE programs to incorporate cutting-edge technologies and practices into their training. DEOs highlighted the potential for industry partnerships to introduce participants to emerging fields such as renewable energy, artificial intelligence, and advanced manufacturing. Specific areas of innovation and technology transfer include:

- a. **Digital Skills:** Training in coding, data analysis, and digital marketing.
- b. **Green Technologies:** Skills in solar energy installation, energy efficiency, and sustainable practices.
- c. **Advanced Manufacturing:** Techniques for working with robotics, automation, and 3D printing.

By fostering innovation and technology transfer, NFE programs can equip participants with the skills needed to thrive in a rapidly changing economy.

- v. **Addressing Skill Gaps and Labor Market Demands:** Industry collaboration is essential for addressing skill gaps and labor market demands, particularly in sectors with high growth potential. DEOs emphasized the importance of working with employers and trade associations to identify and respond to these gaps. Specific strategies for addressing skill gaps include:

- a. **Sector-Specific Training:** Programs focused on high-demand sectors such as healthcare, construction, and information technology.
- b. **Upskilling and Reskilling:** Training for existing workers to adapt to new technologies and changing job requirements.

By addressing skill gaps and labor market demands, NFE programs can contribute to the economic development of Punjab and improve the livelihoods of its residents.

vi. Promoting Apprenticeships and On-the-Job Training: Apprenticeships and on-the-job training are powerful tools for bridging the gap between education and employment. DEOs highlighted the role of industry collaboration in promoting these opportunities, which provide participants with practical experience and a smooth transition into the workforce. Specific benefits of apprenticeships and on-the-job training include:

- a. Hands-On Experience:** Opportunities to practice and refine skills in real-world settings.
- b. Mentorship:** Guidance and support from experienced professionals.
- c. Employment Pathways:** Direct pathways to full-time employment for successful apprentices.

By promoting apprenticeships and on-the-job training, NFE programs can enhance the employability of their participants and create stronger linkages with industry stakeholders.

vii. Challenges and Recommendations for Strengthening Collaboration: While DEOs recognized the potential of industry collaboration, they also highlighted several challenges that need to be addressed to strengthen these partnerships. These challenges include limited awareness and engagement from industry stakeholders, a lack of formal mechanisms for collaboration, and resource constraints. To address these challenges, DEOs recommended the following strategies:

- a. Awareness Campaigns:** Raising awareness among industry stakeholders about the benefits of collaborating with NFE programs.
- b. Formal Partnerships:** Establishing formal agreements and frameworks for collaboration, such as memorandums of understanding (MOUs) and industry advisory boards.
- c. Incentives for Employers:** Providing incentives for employers to participate in NFE programs, such as tax breaks or grants.
- d. Capacity Building:** Training NFE staff to effectively engage with industry stakeholders and manage partnerships.

Some verbatim from DEOs responses are as follows:

1. *"Industry stakeholders have a deep understanding of the skills required in the workplace. Their input is invaluable for making our training programs relevant and effective."*
2. *"When employers are involved in the training process, they are more likely to hire our graduates because they know they have the skills needed to succeed."*
3. *"Industry experts can help us design training modules that reflect the latest trends and technologies, ensuring that our programs remain up-to-date and relevant."*
4. *"Industry collaboration allows us to stay at the forefront of technological advancements and prepare our participants for the jobs of the future."*
5. *"By understanding the needs of the labor market, we can design targeted training programs that address specific skill shortages and create opportunities for our participants."*

4.2.4.7 Suggestions to strengthen the Impact of NFE Programs

DEOs were asked to propose some *recommendations for policymakers and stakeholders to strengthen the impact of non-formal education programs on technical and vocational skills development in Punjab*. They elicited a range of strategic and actionable recommendations. These recommendations reflect the DEOs' deep understanding of the challenges and opportunities associated with non-formal education (NFE) programs, particularly in the context of Punjab's socio-economic landscape. This qualitative analysis synthesizes the perspectives of DEOs, identifying key themes and recommendations to enhance the effectiveness and impact of NFE programs. The analysis is structured around the following themes:

- i. Policy and Institutional Reforms:** DEOs emphasized the need for comprehensive policy and institutional reforms to create an enabling environment for NFE programs. This includes developing a unified policy framework that outlines the goals, standards, and guidelines for NFE, as well as establishing mechanisms for coordination and accountability among different stakeholders. Specific recommendations include:

- a. **National and Provincial Policies:** Developing policies that recognize the importance of NFE and provide a roadmap for its implementation.
- b. **Regulatory Bodies:** Establishing regulatory bodies to oversee the quality and accreditation of NFE programs.
- c. **Coordination Mechanisms:** Creating platforms for collaboration among government agencies, NGOs, and private sector actors.

By implementing these reforms, policymakers can create a more supportive environment for NFE programs and enhance their impact on skills development.

- ii. **Increased Funding and Resource Allocation:** A recurring theme in the responses was the need for increased funding and resource allocation to support NFE programs. DEOs highlighted that many programs operate on limited budgets, which restricts their reach and effectiveness. Specific recommendations include:

- a. **Government Funding:** Increasing budgetary allocations for NFE programs at both the national and provincial levels.
- b. **Donor Support:** Mobilizing resources from international donors and development organizations.
- c. **Public-Private Partnerships:** Leveraging private sector investments to support NFE initiatives.

By securing sustainable funding, policymakers can ensure that NFE programs have the resources they need to achieve their objectives.

- iii. **Industry Collaboration and Partnerships:** Collaboration with industry stakeholders was identified as a critical factor for the success of NFE programs. DEOs recommended fostering partnerships with employers, trade associations, and industry experts to enhance the relevance and impact of training programs. Specific recommendations include:

- a. **Industry Advisory Boards:** Establishing boards to guide curriculum development and program design.
- b. **Internships and Apprenticeships:** Creating opportunities for participants to gain hands-on experience in real work environments.
- c. **Job Placement Services:** Facilitating connections between graduates and potential employers.

By strengthening industry collaboration, NFE programs can improve the employability of their participants and contribute to economic development.

iv. Curriculum Development and Relevance: DEOs highlighted the importance of developing curricula that are relevant to the needs of the labor market and the aspirations of participants. This includes incorporating emerging technologies, industry trends, and practical skills into training programs. Specific recommendations include:

- a. Market-Driven Curricula:** Designing programs that focus on high-demand skills and sectors.
- b. Modular Training:** Offering flexible, modular courses that allow participants to acquire specific skills in a shorter time frame.
- c. Practical Learning:** Emphasizing hands-on, experiential learning to enhance the applicability of skills.

By ensuring the relevance of curricula, NFE programs can better prepare participants for the challenges and opportunities of the job market.

v. Capacity Building for Trainers and Facilitators: The quality of NFE programs depends heavily on the skills and expertise of trainers and facilitators. DEOs recommended investing in capacity building to ensure that trainers are equipped to deliver high-quality training. Specific recommendations include:

- a. Training Programs:** Providing regular training and certification for trainers and facilitators.
- b. Resource Materials:** Developing and distributing teaching materials and resources.
- c. Peer Learning:** Creating platforms for trainers to share best practices and learn from each other.

By building the capacity of trainers, NFE programs can enhance the quality of training and improve learning outcomes.

vi. Awareness and Outreach Initiatives: DEOs emphasized the need for targeted awareness and outreach initiatives to ensure that NFE programs reach their target audiences. This includes using multiple channels to disseminate information about program offerings and benefits. Specific recommendations include:

- a. Community Outreach:** Engaging community leaders and influencers to promote NFE programs.
- b. Media Campaigns:** Using radio, television, and social media to raise awareness.

c. **Success Stories:** Showcasing the achievements of program graduates to inspire potential participants.

By enhancing awareness and outreach, NFE programs can attract more participants and maximize their impact. Some verbatim from DEOs responses are as follows:



1. *"We need a clear and coherent policy that brings together all the players involved in non-formal education. This will help us avoid duplication of efforts and ensure that resources are used efficiently."*
2. *"Without adequate funding, we cannot provide the necessary infrastructure, materials, and training to deliver high-quality programs."*
3. *"Industry collaboration ensures that our training programs are aligned with the needs of the labor market and that our graduates have the skills required by employers."*
4. *"Our curricula need to be dynamic and responsive to the changing demands of the economy. This requires regular updates and input from industry experts."*
5. *"Our trainers need ongoing professional development to stay updated on the latest technologies and teaching methodologies."*

4.2.4.8 Role of NFE Programs in Developing Technical and Vocational Skills

District Education Officers (DEOs) were asked *about various ways through which non-formal education programs are playing important role to develop technical and vocational skills among students*. Their responses revealed a deep understanding of the challenges, opportunities, and broader implications of NFE in the context of Punjab's socio-economic landscape. This qualitative analysis synthesizes the perspectives of DEOs, identifying key themes and insights that go beyond the specific questions previously addressed. The analysis is structured around the following themes:

i. **NFE as a Tool for Social Inclusion:** DEOs emphasized that non-formal education programs play a critical role in promoting social inclusion by reaching marginalized and underserved populations. These programs provide a second chance for

individuals who have been excluded from formal education due to poverty, gender discrimination, or other socio-economic barriers. Specific examples of social inclusion through NFE include:

- a. **Out-of-School Youth:** Providing opportunities for youth who dropped out of school to acquire skills and re-enter the education or job market.
- b. **Women and Girls:** Offering gender-sensitive programs that address the unique challenges faced by women, such as childcare and mobility constraints.
- c. **Rural Populations:** Bringing education and training to remote areas where formal institutions are scarce.

By prioritizing social inclusion, NFE programs can help bridge the gap between marginalized communities and mainstream society, fostering a more equitable and inclusive Punjab.

ii. **The Role of NFE in Addressing Youth Unemployment:** Youth unemployment is a pressing issue in Punjab, with many young people struggling to find stable and meaningful employment. DEOs highlighted that NFE programs can play a pivotal role in addressing this challenge by equipping youth with the technical and vocational skills needed to secure jobs or start their own businesses. Specific strategies for addressing youth unemployment through NFE include:

- a. **Demand-Driven Training:** Aligning programs with the needs of local industries to ensure that youth acquire relevant and marketable skills.
- b. **Entrepreneurship Support:** Providing training in business planning, financial management, and marketing to encourage self-employment.
- c. **Job Placement Services:** Facilitating connections between youth and potential employers through internships, apprenticeships, and job fairs.

By focusing on youth, NFE programs can create a pipeline of skilled workers and entrepreneurs who can contribute to Punjab's economic development.

iii. **The Importance of Community Ownership:** DEOs underscored the importance of community ownership in the success of NFE programs. They emphasized that programs are more likely to succeed when they are designed and implemented in collaboration with local communities. Specific ways to foster community ownership include:

- a. **Community Advisory Boards:** Establishing boards to provide input on program design and implementation.

- b. Local Facilitators:** Recruiting and training facilitators from within the community to ensure cultural relevance and trust.
- c. Participatory Approaches:** Engaging community members in needs assessments, monitoring, and evaluation.

By involving communities in every stage of the process, NFE programs can build local capacity and ensure that they address the specific needs of the population.

iv. The Potential of NFE to Empower Women: Empowering women through skills development was a recurring theme in the responses. DEOs highlighted that NFE programs can play a transformative role in challenging gender norms and creating opportunities for women to achieve economic independence. Specific ways in which NFE programs empower women include:

- a. Gender-Sensitive Training:** Offering programs that are tailored to women's needs, such as flexible schedules and childcare facilities.
- b. Non-Traditional Skills:** Encouraging women to pursue training in fields traditionally dominated by men, such as construction and technology.
- c. Financial Literacy:** Providing training in financial management and entrepreneurship to help women start and grow their own businesses.

By prioritizing women's empowerment, NFE programs can contribute to gender equality and inclusive development in Punjab.

v. The Role of Technology in Scaling NFE: Technology was identified as a key enabler for scaling NFE programs and reaching a larger audience. DEOs highlighted the potential of digital tools and platforms to deliver training content, particularly in areas where access to physical training centers is limited. Specific ways to leverage technology in NFE include:

- a. Online Courses:** Developing e-learning platforms that offer flexible and self-paced learning opportunities.
- b. Mobile Learning:** Using mobile apps and SMS-based learning to reach individuals with limited access to computers or the internet.
- c. Virtual Reality (VR) and Simulations:** Incorporating immersive technologies to provide hands-on training in a virtual environment.

By embracing technology, NFE programs can enhance their reach, efficiency, and effectiveness.

vi. The Need for a Holistic Approach to Skills Development: DEOs emphasized that skills development should not be limited to technical and vocational training but

should also include life skills, soft skills, and civic education. They argued that a holistic approach is essential for preparing individuals to navigate the complexities of the modern world. Specific components of a holistic approach include:

- a. Life Skills Training:** Teaching skills such as time management, teamwork, and conflict resolution.
- b. Soft Skills Development:** Focusing on communication, leadership, and emotional intelligence.
- c. Civic Education:** Promoting awareness of rights, responsibilities, and democratic processes.

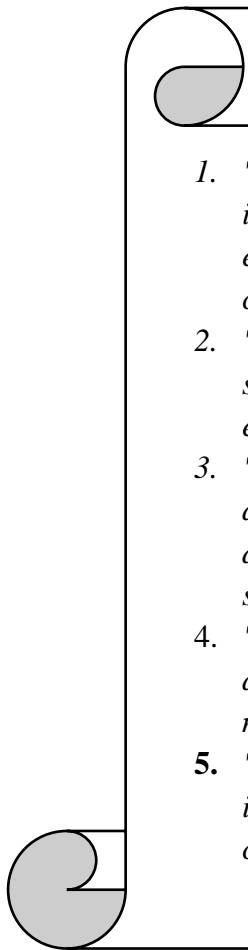
By adopting a holistic approach, NFE programs can equip individuals with the tools they need to thrive in all aspects of life.

vii. The Long-Term Vision for NFE in Punjab: DEOs shared their vision for the future of NFE in Punjab, emphasizing the need for sustained investment, innovation, and collaboration. They called for a long-term commitment to NFE as a key driver of socio-economic development. Specific elements of this long-term vision include:

- a. Policy Integration:** Embedding NFE within national and provincial education and development policies.
- b. Sustainable Funding:** Securing long-term funding from government, private sector, and international sources.
- c. Continuous Improvement:** Establishing mechanisms for ongoing learning, adaptation, and innovation.

By pursuing this vision, Punjab can harness the full potential of NFE to create a more skilled, empowered, and inclusive society.

Some verbatim from DEOs responses are as follows:

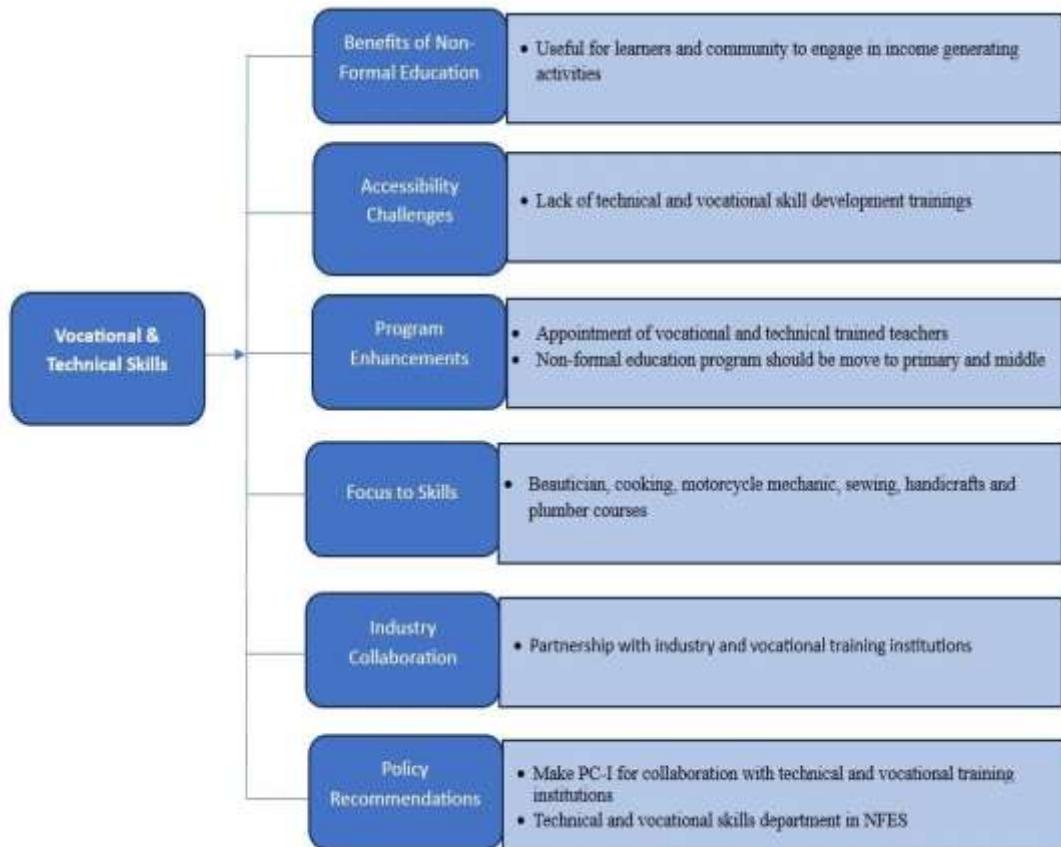


1. *"Non-formal education is not just about skills development; it is about giving people a voice and a place in society. It empowers them to participate in the economy and contribute to their communities."*
2. *"Our youth are our greatest asset. By investing in their skills development, we can unlock their potential and drive economic growth."*
3. *"Communities know their needs and challenges better than anyone else. When they are involved in the planning and delivery of NFE programs, the outcomes are more sustainable and impactful."*
4. *"Technology allows us to overcome geographical barriers and provide high-quality training to people in even the most remote areas."*
5. *"When women are empowered with skills, they not only improve their own lives but also uplift their families and communities."*

The thematic analysis highlights the DEOs' holistic approach to enhancing the role of vocational and technical skills in non-formal education. By addressing the accessibility challenges, strengthening program offerings, focusing on in-demand skills, fostering industry partnerships and advocating for policy-level changes, the framework aims to bridge the gap between the skills acquired in non-formal education and the needs of the local job market. The emphasis on specific vocational and technical skills such as beautician, cooking, and plumbing, suggests a strategic alignment with the economic activities and employment opportunities within the local context. This contextualized approach can help ensure the relevance and impact of non-formal education programs in empowering marginalized communities and contributing to sustainable development. Pictorial description of technical and vocational skills is as follows:

Figure 4.6

Technical and vocational skills



4.2.5 Challenges faced by Social Mobilizers in Establishing NFBES

Fifth research question was “What are the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab? Data related to this question were collected from social mobilizers and DEOs through interviews. Detailed data analysis of data collected from social mobilizers is as follows:

Social mobilizers were asked about what kind of challenges they face in establishing the non-formal education schools in their districts. Most of the social mobilizers (33%) said that:

The major difficulty they face in establishing non-formal education schools is finding the teachers, because majority of the education people are from rural areas go to nearby cities for jobs and work, therefore finding educated persons for teaching became very difficult.

Especially, finding male teachers is very difficult because mostly educated males from rural areas moves to nearby cities for job or work and it became difficult to

establish schools for boys due to the unavailability of male teachers in rural areas. This issue is rooted in a complex web of socioeconomic factors that have persisted over time creating a challenging landscape for education providers in these underserved communities. One of the primary causes is the lack of infrastructure and resources in these remote regions. Many rural villages in Punjab lack basic amenities such as reliable electricity, clean water and well-maintained roads. This makes it difficult to attract and retain teachers who often prefer to work in more developed urban centers where the quality of life is higher. Additionally, the financial incentives for teachers in non-formal education schools are often limited, as these institutions frequently operate on tight budgets and limited funding. This can make it challenging to offer competitive salaries and benefits which can deter potential teachers from seeking employment in these schools.

They stated that another crucial factor is the limited access to quality teacher training and professional development opportunities in rural areas. Many aspiring educators in these regions may not have the opportunity to acquire the necessary skills and knowledge to effectively teach in non-formal education settings. This can lead to a shortage of qualified teachers who are equipped to address the unique needs of students in these non-traditional learning environments. Furthermore, the social and cultural norms of some rural communities in Punjab can also play a role in the challenges of finding teachers. In certain areas, the traditional gender roles and expectations may limit the pool of available teachers as female educators may face societal barriers or restrictions on their ability to work outside the home. Social mobilizers were further asked about to address any challenges they face in providing the facilities to teachers at schools.

Most of the social mobilizers (74%) said that *they face challenges in providing the necessities at schools because of the challenges to reach at schools, because many schools are located at such locations where no proper way not go*. There is no road infrastructure to reach the exact locations, similarly in rural areas the facility of internet is not available which further cause hindrance in finding the exact location of schools and make it difficult to reach and provide necessities at schools, therefore it become difficult to maintain and run school at such locations and eventually they have to be close after some time. Due to the same reasons for majority of the social mobilizers (49%) *it become difficult to provide learner kits, book and copies for students at*

schools, which cause delay in starting study of students and the course work of students also did not complete in time.

Another casual factor of challenges in establishing NFES is the attitude of highly educated individuals in the community. Majority of the highly qualified individuals did not agree to teach children. They consider it as the waste of their knowledge and abilities to teach children at basic level. Similarly, they demand salary according to their qualification, which the department could not provide due to its operational costs and budget. Therefore, the non-cooperated attitude of highly educated individuals in the community becomes hindrance in establishing non-formal education schools. As social mobilizers strive to expand access to education in underserved communities, they face a myriad of challenges in establishing non-formal education (NFE) schools. A recent thematic analysis has shed light on the key factors that hinder their efforts, providing valuable insights for policymakers and practitioners alike.

The first factor, "Challenges in establishing NFE," highlights the recruitment and retention of qualified teachers as a significant hurdle. Social mobilizers grapple with the challenge of finding suitable educators particularly in the face of low salaries and the predominance of male teachers. This gender imbalance can limit the accessibility and inclusivity of these educational institutions, especially for female students. The analysis also uncovered institutional and operational challenges in establishing schools. These include the difficulty in sourcing and providing learner kits and center materials, as well as the lack of adequate facilities for new NFE schools. Ensuring the availability of essential learning resources and appropriate physical infrastructure remains a critical barrier to the successful establishment of these educational institutions.

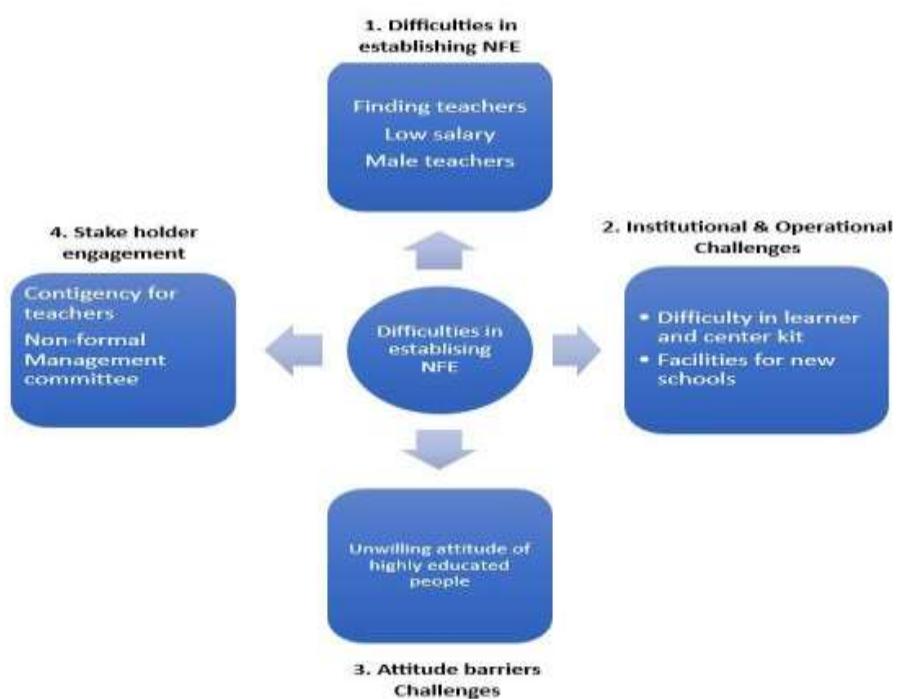
Developing deeper, the analysis identified "Attitude Barriers Challenges" as another formidable obstacle. The unwillingness or disinterest of highly educated individuals in the community can create a significant roadblock, hindering the acceptance and integration of NFE schools within the broader educational landscape. Overcoming these societal biases and perceptions is crucial for the widespread adoption and recognition of non-formal education. Finally, the analysis highlighted the importance of "Stakeholder Engagement" in the establishment and sustainability of NFE schools. Social mobilizers grapple with the need for contingency plans to ensure the continuity of teaching and learning, as well as the necessity of establishing a

dedicated Non-Formal Management Committee to provide governance and oversight. This data underscores the multifaceted challenges faced by social mobilizers as they strive to expand access to education through non-formal channels. These factors will require a comprehensive and collaborative approach, involving policymakers, educational administrators and practitioners.

Some potential strategies may include implementing competitive compensation packages to attract and retain qualified NFE teachers with a focus on increasing female representation investing in the development of learner-centric resources and infrastructure to support the operational and learning needs of NFE schools. It is engaging in targeted awareness campaigns and advocacy efforts to challenge societal perceptions and foster buy-in from the broader community, establishing robust governance structures and management committees to ensure the effective coordination and oversight of NFE programs. By addressing these challenges, the NFE initiative can be strengthened, empowering marginalized communities and providing alternative pathways to quality education. The road ahead is not without its obstacles but with a concerted and collaborative effort, the vision of inclusive and transformative non-formal education can be realized.

Figure 4.7

Challenges faced by Social Mobilizers in Establishing NFBES



4.2.6 Challenges faced by DEOs in Establishing NFBES

In order to explore the challenges faced by DEOs, six questions were asked from them. Some verbatim from DEOs responses are as follows:

1. *In rural areas majority of the high qualified individuals moved to nearby cities for job or work and they don't like to waste their knowledge and abilities in deprived areas, on the other hand they have lack of opportunities in these areas according to their qualification and knowledge therefore it become very difficult to find and hire the qualified teachers for non-formal education schools.*
2. *Another factor which make it difficult to establish non-formal schools is low salaries of teachers, education and qualified individuals expect more salary as offered by non-formal education department. Due to this factors majority of the individuals refuse to teach in non-formal education schools.*
3. *One of the most significant challenges faced by these programs is securing qualified teachers. Primary reasons for the difficulty in securing qualified teachers in non-formal education schools are the socio-economic conditions prevalent in South Punjab.*
4. *Teachers' willingness to participate in a contingency plan is also influenced by their perception of the benefits and motivations associated with such an arrangement.*
5. *Cultural and social norms in South Punjab also play a significant role in limiting the availability of qualified teachers for non-formal education programs.*

For data analysis two major themes: challenges in securing qualified teachers and Factors affecting Teachers' Willingness to Participate in Contingency Plan have been developed based on asked questions, their description is as follows:

4.2.6.1 Challenges in Securing Qualified Teachers

Non-formal education (NFE) programs play a critical role in providing educational opportunities to marginalized and underserved populations, particularly in regions like South Punjab, Pakistan. This qualitative analysis of data collected from teachers explored the following factors contributing to this challenge:

- i. **Socio-Economic Constraints:** Many qualified teachers prefer to work in urban areas or formal education institutions, where they can secure better salaries and job stability. Non-formal education programs, often underfunded and reliant on donor support, cannot compete with the financial incentives offered by formal schools or private institutions. As a result, NFE schools are left with a limited pool of candidates, many of whom may lack the necessary qualifications or experience. Additionally, the rural and remote locations of many NFE schools in South Punjab further exacerbate the problem. Teachers are often reluctant to work in these areas due to poor infrastructure, lack of transportation, and limited access to basic amenities. This creates a significant barrier to attracting and retaining qualified educators.
- ii. **Lack of Incentives and Career Growth Opportunities:** Non-formal education programs often struggle to provide competitive incentives to attract qualified teachers. Unlike formal education systems, where teachers enjoy benefits such as job security, pensions, and opportunities for professional advancement, NFE programs typically offer temporary or contract-based positions with limited benefits. This lack of long-term career growth opportunities discourages qualified individuals from pursuing teaching roles in non-formal education settings. Moreover, the absence of recognition for NFE teaching experience within the formal education sector further diminishes the appeal of these positions. Teachers who work in NFE programs often find that their experience is not valued when applying for jobs in formal schools, making it a less attractive career option.
- iii. **Inadequate Training and Professional Development Opportunities:** Another critical factor contributing to the shortage of qualified teachers in NFE programs is the lack of access to training and professional development opportunities. Many teachers in non-formal education schools are hired based on their basic educational qualifications rather than their teaching skills or experience. Without adequate training, these teachers may struggle to deliver effective instruction, particularly in subjects like mathematics, science, and English, which require specialized knowledge. Furthermore, the absence of structured professional development programs for NFE teachers means that they have limited opportunities to improve their skills or stay updated on modern teaching methodologies. This not only affects the quality of education provided but also discourages qualified teachers from

joining NFE programs, as they may feel that their professional growth will be stunted.

- iv. **Cultural and Social Barriers:** In many rural areas, teaching is not considered a prestigious profession, particularly for men, who may prefer other occupations such as farming or small-scale business. This cultural perception reduces the pool of potential candidates for teaching positions in NFE schools. For women, cultural restrictions and safety concerns often prevent them from pursuing teaching roles, especially in remote or conservative areas. Even when qualified female teachers are available, they may face resistance from their families or communities, limiting their ability to work in NFE programs. This gender disparity further restricts the availability of qualified teachers, particularly in co-educational or girls-only NFE schools.
- v. **Systemic Issues in the Education Sector:** The broader challenges within Pakistan's education sector also contribute to the difficulty in securing qualified teachers for NFE programs. The formal education system itself faces a shortage of trained teachers, particularly in rural areas. This creates a competitive environment where NFE programs struggle to attract qualified candidates, as the formal sector often absorbs the limited pool of available teachers. Additionally, the lack of coordination between government agencies, non-governmental organizations (NGOs), and other stakeholders involved in NFE programs leads to inefficiencies in teacher recruitment and deployment. For example, there may be overlapping efforts or gaps in coverage, resulting in some areas being underserved while others have an excess of teachers. This systemic inefficiency further compounds the challenge of securing qualified teachers for NFE schools.
- vi. **High Teacher Turnover Rates:** High turnover rates among teachers in non-formal education programs are another significant issue. Many teachers view NFE positions as temporary or stopgap measures while they search for more stable employment opportunities. This transient nature of the workforce creates instability within NFE schools, as they must frequently recruit and train new teachers. The constant turnover not only disrupts the learning process for students but also places an additional burden on program administrators, who must continuously address staffing shortages.
- vii. **Limited Awareness and Advocacy for NFE Programs:** Lack of awareness and advocacy for non-formal education programs contributes to the difficulty in

securing qualified teachers. Many potential candidates are unaware of the opportunities available in NFE schools or do not fully understand the importance of these programs in addressing educational disparities. Without targeted advocacy efforts to highlight the value and impact of NFE, it is challenging to attract qualified individuals who are passionate about working in this sector.

4.2.6.2 Factors affecting Teachers' Willingness to Participate in Contingency Plan

Non-formal education (NFE) programs in Punjab, particularly in South Punjab, play a critical role in addressing educational disparities and providing access to education for marginalized and underserved populations. These programs often operate in resource-constrained environments, relying on community support and innovative strategies to deliver education. One such strategy is the use of teachers' premises as temporary learning spaces, especially in areas where formal school infrastructure is lacking. This qualitative analysis explored the willingness of teachers to participate in a contingency plan in exchange for allowing students to use their premises, its detail is as follows:

i. Socio-Economic Considerations: Teachers' willingness to participate in a contingency plan and allow students to use their premises is heavily influenced by socio-economic factors. In rural areas, where poverty levels are high and access to formal education infrastructure is limited, teachers are often more willing to support NFE initiatives. This willingness stems from a sense of community responsibility and the recognition of the urgent need for educational opportunities in these areas. Many teachers in rural settings view their involvement in NFE programs as a way to contribute to the development of their communities. However, in urban areas, socio-economic dynamics differ significantly. Teachers in urban settings are often more hesitant to allow the use of their premises due to the smaller size of living spaces and the higher cost of living. Urban teachers may also have additional responsibilities, such as second jobs or family commitments, which limit their availability and willingness to participate in contingency plans. Furthermore, the financial burden of accommodating students on their premises, such as increased utility costs or wear and tear on property, can deter teachers from agreeing to such arrangements.

ii. Cultural Norms and Community Expectations: Cultural norms and community expectations play a significant role in shaping teachers' willingness to participate in

contingency plans. In rural areas, where community ties are strong, teachers often feel a sense of obligation to support local initiatives aimed at improving education. The close-knit nature of rural communities fosters a culture of mutual support, making teachers more likely to allow students to use their premises. Additionally, the respect and recognition teachers receive from their communities for their involvement in NFE programs can serve as a motivating factor. In contrast, urban areas tend to have more individualistic cultures, where personal space and privacy are highly valued. Teachers in urban settings may be less willing to open their homes to students due to concerns about privacy and the potential disruption to their daily lives. Moreover, cultural norms around gender and social interactions can also influence teachers' decisions. For example, female teachers may face additional barriers, such as safety concerns or societal expectations, which limit their willingness to participate in such initiatives.

iii. Logistical Challenges: Logistical challenges are a major factor influencing teachers' willingness to allow students to use their premises. In rural areas, where living spaces are often larger and more open, accommodating students is relatively easier. Teachers in these areas may have courtyards, verandas, or unused rooms that can be repurposed as temporary learning spaces. However, even in rural settings, logistical challenges such as the lack of basic amenities (e.g., electricity, clean water, and sanitation) can make it difficult for teachers to provide a conducive learning environment. In urban areas, logistical challenges are more pronounced. The smaller size of living spaces in urban settings makes it difficult to accommodate groups of students, particularly in densely populated neighborhoods. Additionally, urban teachers may face challenges related to noise, traffic, and limited outdoor space, which can disrupt the learning process. These logistical barriers often outweigh the potential benefits of participating in a contingency plan, leading to lower levels of willingness among urban teachers.

iv. Perceived Benefits and Motivations: In rural areas, teachers often view their involvement in NFE programs as an opportunity to make a meaningful impact on their communities. The satisfaction of contributing to the education of underserved children and the recognition they receive from their communities serve as strong motivators. Additionally, some teachers may see this as an opportunity to enhance their professional reputation and build stronger relationships with students and parents. In urban areas, the perceived benefits of participating in a contingency plan

are often outweighed by the challenges. However, some teachers may be motivated by the potential for professional development or financial incentives. For example, teachers who receive stipends or other forms of compensation for their involvement in NFE programs may be more willing to allow students to use their premises. Similarly, teachers who are passionate about education and see this as an opportunity to innovate and experiment with new teaching methods may also be more inclined to participate.

- v. **Role of District Education Officers (DEOs):** The role of District Education Officers (DEOs) is critical in facilitating teachers' willingness to participate in contingency plans. DEOs can play a key role in addressing the concerns of teachers and providing the necessary support to make such arrangements feasible. For example, DEOs can advocate for financial incentives, such as stipends or reimbursements for utility costs, to encourage teachers to allow students to use their premises. They can also provide logistical support, such as supplying teaching materials, furniture, and other resources to create a conducive learning environment. Additionally, DEOs can work to build trust and foster a sense of collaboration among teachers, students, and communities. By highlighting the positive impact of NFE programs and recognizing the contributions of teachers, DEOs can create a supportive environment that encourages teachers to participate in contingency plans. Furthermore, DEOs can address cultural and societal barriers by engaging with community leaders and advocating for the importance of education, particularly for marginalized groups.
- vi. **Challenges and Recommendations:** While the willingness of teachers to participate in contingency plans varies across rural and urban areas, several common challenges must be addressed to enhance their participation. These challenges include:
 - a. **Financial Constraints:** Providing financial incentives, such as stipends or reimbursements, can help offset the costs associated with allowing students to use teachers' premises.
 - b. **Logistical Support:** Ensuring that teachers have access to the necessary resources, such as teaching materials, furniture, and basic amenities, can make it easier for them to accommodate students.

- c. **Cultural and Societal Barriers:** Engaging with community leaders and addressing cultural norms around gender and privacy can help create a more supportive environment for teachers.
- d. **Professional Development:** Offering opportunities for professional development and recognizing teachers' contributions to NFE programs can serve as strong motivators.

The thematic analysis provides a comprehensive understanding of the multifaceted challenges faced by DEOs in implementing and sustaining non-formal education initiatives in Punjab. These data underscore the need for a holistic and coordinated approach to address the identified issues, which may involve increased resource allocation, strengthened community engagement, improved institutional collaboration, and the mitigation of socio-cultural barriers. The insights gained from this analysis can inform policymakers, education planners, and stakeholders in developing targeted interventions and strategies to enhance the effectiveness and reach of non-formal education programs in the region. By addressing these challenges, the education system can better serve the needs of marginalized and underserved communities, ultimately contributing to the goal of improving access to quality education for all.

4.2.6.3 Ways to communicate project director about the challenges

Non-formal education (NFE) programs in Punjab, particularly in South Punjab, are critical for providing educational opportunities to marginalized and underserved populations. These programs often face numerous challenges in their establishment and operation, ranging from logistical and infrastructural issues to socio-cultural and administrative barriers. District education officers play a pivotal role in identifying, addressing, and communicating these challenges to ensure the smooth functioning of NFE schools. This qualitative data analysis indicated the role of district education officers in informing project directors about challenges in establishing NFE schools, based on data collected from district education officers in six districts of South Punjab: Multan, Muzaffargarh, D.G. Khan, Rajanpur, and Rahimyar Khan. The findings revealed that district education officers act as a crucial link between the ground realities and project directors, employing both verbal and written communication to address minor and major challenges effectively. Detailed data analysis is as follows:

- i. **The Role of District Education Officers in NFE Programs:** District education officers are frontline workers who play a vital role in the implementation and success of non-formal education programs. Their responsibilities include community engagement, identifying potential locations for NFE schools, enrolling students, and addressing challenges that arise during the establishment and operation of these schools. As intermediaries between the community and project directors, district education officers are often the first to encounter challenges and are responsible for communicating these issues to higher authorities. The data collected from district education officers indicates that they are highly proactive in informing project directors about challenges. This reflects their commitment to the success of NFE programs and their understanding of the importance of timely communication in resolving issues. Their ability to differentiate between minor and major challenges and communicate them through appropriate channels (verbal or written) demonstrates their efficiency and strategic approach to problem-solving.
- ii. **Communication of Minor Challenges:** District education officers reported that minor challenges, which can be resolved immediately or within a short timeframe, are communicated verbally to project directors. These minor challenges often include:
 - a. **Logistical Issues:** Problems such as the unavailability of teaching materials, furniture, or temporary space for conducting classes are common in the initial stages of establishing NFE schools. District education officers address these issues by coordinating with local communities or arranging temporary solutions while informing project directors verbally.
 - b. **Community Resistance:** In some cases, communities may initially resist the establishment of NFE schools due to misconceptions or lack of awareness. District education officers use their interpersonal skills to address these concerns and verbally update project directors about their progress in resolving such issues.
 - c. **Teacher Availability:** Short-term shortages of teachers or delays in teacher appointments are also reported verbally. District education officers often work with local volunteers or community members to ensure that classes continue while waiting for formal appointments.

The verbal communication of minor challenges allows for quick decision-making and immediate action, ensuring that the establishment and operation of NFE

schools are not significantly disrupted. This approach reflects the adaptability and resourcefulness of district education officers in addressing challenges on the ground.

iii. Communication of Major Challenges: For challenges that are more complex, time-consuming, or difficult to resolve, district education officers use written communication to inform project directors. These major challenges often require strategic planning, additional resources, or intervention from higher authorities. Examples of such challenges include:

- a. Infrastructural Constraints:** The lack of suitable premises for establishing NFE schools is a common issue, particularly in rural areas. District education officers document these challenges in written reports, providing details about the specific requirements and potential solutions, such as constructing new facilities or renovating existing ones.
- b. Funding Shortages:** Financial constraints that hinder the procurement of essential resources or the payment of teachers' salaries are also reported in writing. District education officers provide detailed accounts of the financial requirements and the impact of these shortages on the program's effectiveness.
- c. Policy or Administrative Barriers:** Challenges related to government regulations, land ownership disputes, or delays in obtaining necessary permissions are documented in written reports. These issues often require intervention from project directors or higher authorities to resolve.
- d. Long-Term Community Resistance:** In cases where community resistance persists despite initial efforts, district education officers provide written reports outlining the underlying causes and potential strategies for addressing them. This may include recommendations for awareness campaigns or community engagement initiatives.

Written communication ensures that major challenges are formally documented, allowing project directors to allocate resources, seek external support, or develop long-term strategies to address these challenges. This systematic approach reflects the professionalism and strategic thinking of district education officers in managing complex issues.

iv. Impact of Effective Communication on NFE Programs: The proactive and strategic communication of challenges by district education officers has a significant impact on the effectiveness of NFE programs. By ensuring that minor challenges are resolved quickly and major challenges are documented and addressed

systematically, district education officers contribute to the smooth establishment and operation of NFE schools. This, in turn, enhances the quality of education provided to marginalized and underserved populations. Effective communication also fosters trust and collaboration between district education officers, project directors, and communities. When challenges are addressed transparently and efficiently, communities are more likely to support NFE programs, leading to higher enrollment rates and greater program sustainability.

v. **Recommendations for Strengthening the Role of District Education Officers:**

To further enhance the effectiveness of district education officers in addressing challenges, the following recommendations are proposed:

- a. **Capacity Building:** Provide regular training and capacity-building programs for district education officers to equip them with the skills and knowledge needed to address complex challenges.
- b. **Resource Allocation:** Ensure that district education officers have access to the necessary resources, such as transportation, communication tools, and teaching materials, to perform their duties effectively.
- c. **Streamlined Reporting Mechanisms:** Develop streamlined reporting mechanisms to facilitate the timely and efficient communication of challenges. This may include digital platforms or standardized reporting templates.
- d. **Community Engagement:** Strengthen community engagement initiatives to address resistance and build support for NFE programs. District education officers should be empowered to lead these initiatives with the backing of project directors and higher authorities.

4.2.6.4 Initiatives taken by project director to reduce the challenges

Non-formal education (NFE) programs in Punjab, particularly in South Punjab, are essential for providing educational opportunities to marginalized and underserved populations. However, establishing new NFE schools often involves navigating a range of challenges, from logistical and infrastructural issues to socio-cultural and administrative barriers. Project directors play a critical role in addressing these challenges, working closely with district education officers, communities, and higher authorities to ensure the successful establishment and operation of NFE schools. This qualitative data analysis explored the strategies employed by project directors to reduce challenges data collected from DEOs revealed that project directors adopt a two-

pronged approach, engaging with influential community members to address minor challenges and formally informing higher authorities to resolve major challenges.

i. The Role of Project Directors in NFE Programs: Project directors are key stakeholders in the implementation and management of non-formal education programs. They are responsible for overseeing the establishment of new NFE schools, ensuring that resources are allocated effectively, and addressing challenges that arise during the process. As intermediaries between district education officers, communities, and higher authorities, project directors play a pivotal role in bridging gaps and facilitating collaboration. The data collected from district education officers highlights the proactive and strategic role of project directors in reducing challenges. By leveraging their authority, networks, and resources, project directors ensure that minor challenges are resolved quickly and major challenges are addressed systematically. This reflects their commitment to the success of NFE programs and their ability to navigate complex socio-political landscapes.

ii. Addressing Minor Challenges through Community Engagement: For minor challenges, project directors often engage with influential community members to facilitate the establishment of NFE schools. These minor challenges typically include logistical issues, community resistance, and short-term resource shortages, which can be resolved through local interventions. The strategies employed by project directors include:

- a. Leveraging Community Networks:** Project directors contact influential individuals in the community, such as local leaders, elders, or respected figures, to garner support for NFE programs. These individuals often have the authority and influence to address community concerns and mobilize resources.
- b. Building Trust and Collaboration:** By involving influential community members in the establishment of NFE schools, project directors build trust and foster a sense of ownership among community members. This collaborative approach helps to address resistance and ensures the sustainability of NFE programs.
- c. Facilitating Local Solutions:** Project directors work with community members to identify and implement local solutions to minor challenges. For example, they may arrange for temporary learning spaces, secure donations of teaching materials, or enlist volunteers to address teacher shortages.

The engagement of influential community members not only resolves minor challenges but also strengthens the relationship between NFE programs and the communities they serve. This approach reflects the adaptability and resourcefulness of project directors in addressing challenges on the ground.

iii. Addressing Major Challenges Through Formal Channels: For major challenges that require significant resources, policy changes, or intervention from higher authorities, project directors adopt a formal approach. These major challenges often include infrastructural constraints, funding shortages, and administrative barriers, which cannot be resolved through local interventions alone. The strategies employed by project directors include:

- a. Formal Communication with Higher Authorities:** Project directors prepare detailed reports outlining the nature and impact of major challenges and submit them to higher authorities. These reports provide a clear rationale for the required resources or interventions and highlight the urgency of addressing the challenges.
- b. Advocacy and Negotiation:** Project directors advocate for the needs of NFE programs during meetings with higher authorities, emphasizing the importance of education for marginalized communities. They negotiate for additional resources, policy changes, or administrative support to address major challenges.
- c. Coordination with Stakeholders:** Project directors coordinate with other stakeholders, such as government agencies, non-governmental organizations (NGOs), and donors, to secure the necessary resources and support. This collaborative approach ensures that major challenges are addressed comprehensively.

The formal communication and advocacy efforts of project directors ensure that major challenges are documented, prioritized, and resolved systematically. This reflects their strategic thinking and ability to navigate bureaucratic processes to achieve program objectives.

iv. Challenges Faced by Project Directors: While project directors play a critical role in reducing challenges, they also face their own set of challenges in fulfilling their responsibilities. These challenges include:

- a. Limited Authority and Resources:** Project directors often have limited authority and resources to address major challenges, particularly those that

require policy changes or significant funding. This can hinder their ability to resolve challenges effectively.

- b. Bureaucratic Delays:** The formal processes involved in communicating with higher authorities and securing resources can be time-consuming, leading to delays in addressing major challenges.
- c. Balancing Multiple Responsibilities:** Project directors are often responsible for overseeing multiple NFE schools and programs, which can make it difficult to allocate sufficient time and attention to each challenge.

v. Impact of Project Directors' Interventions: The proactive and strategic interventions of project directors have a significant impact on the establishment and operation of NFE schools. By addressing minor challenges through community engagement and major challenges through formal channels, project directors ensure that challenges are resolved promptly and systematically. This, in turn, enhances the quality of education provided to marginalized and underserved populations. The engagement of influential community members also fosters trust and collaboration, leading to higher enrollment rates and greater program sustainability. Similarly, the formal communication and advocacy efforts of project directors ensure that major challenges are prioritized and addressed, contributing to the long-term success of NFE programs.

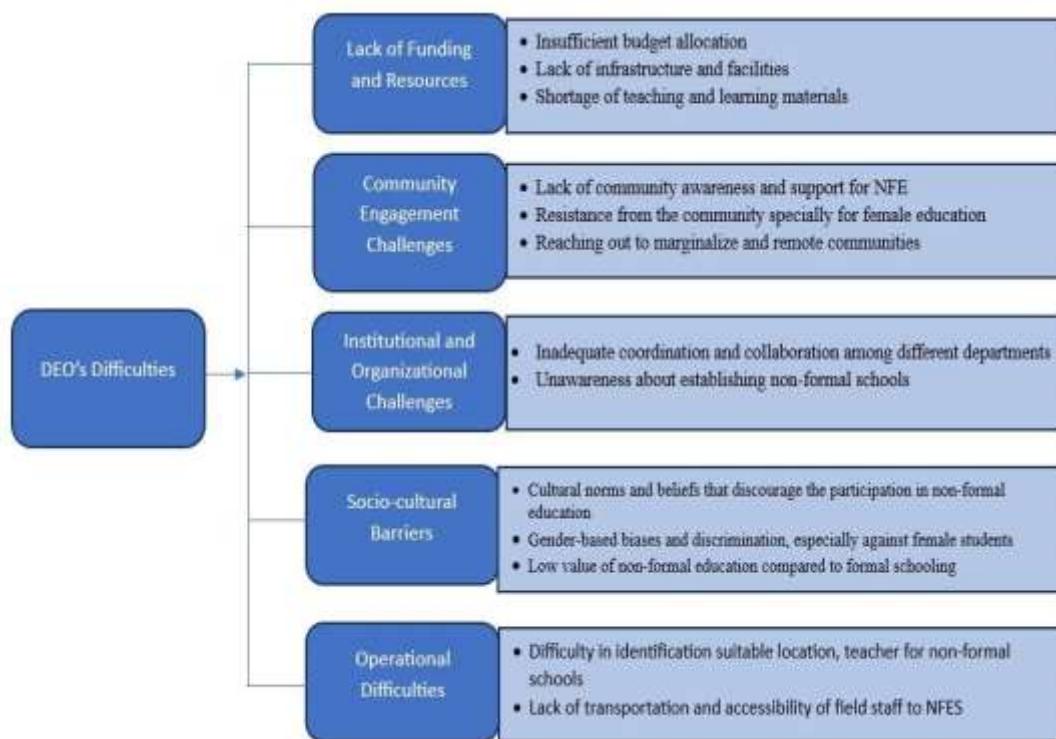
vi. Recommendations for Strengthening the Role of Project Directors: To further enhance the effectiveness of project directors in reducing challenges, the following recommendations are proposed:

- a. Capacity Building:** Provide regular training and capacity-building programs for project directors to equip them with the skills and knowledge needed to address complex challenges.
- b. Resource Allocation:** Ensure that project directors have access to the necessary resources, such as funding, administrative support, and communication tools, to perform their duties effectively.
- c. Streamlined Processes:** Develop streamlined processes for communicating with higher authorities and securing resources to reduce bureaucratic delays and improve efficiency.
- d. Community Engagement:** Strengthen community engagement initiatives to address resistance and build support for NFE programs. Project directors should be empowered to lead these initiatives with the backing of higher authorities.

Pictorial description of DEOs responses about establishing NFBES is as follows:

Figure 4.8

Challenges faced by DEOs in establishing NFBES



4.3 Summary

In this chapter, the data collected using both qualitative and quantitative approaches provides significant insights into the scope of non-formal education in the province Punjab. Data indicates a positive impact in achieving functional literacy as well as a decline in illiteracy rates. The significant aspect is the academic achievement gaps among students in relation to their gender, year, and area. These results highlight the need for greater effort to narrow the gaps that have been established. The insights provided by District Education Officers (DEOs), social mobilizers and teachers, who are the respondents of the data collected, call for resource constraints and teacher support as well as administrative supports to be adequately designed and funded. Though, these recommendations indicate that the focus of the stakeholders is not only on life skills acquisition together with literacy and numeracy but also on vocational and technical skill. Further, the concerns of program effectiveness and sustainability as discussed in the chapter provide a reflection on the broader structural and policy context of non-formal education in the region.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The previous Chapter 4 comprised the data analysis related to research objectives and questions. The present chapter contains the following major sections: Summary of the first four chapters, findings related to objectives and research questions, cumulative findings, discussion related to obtained findings, conclusions related to study objectives and research questions and recommendations that reflect the ways for improving the existing non-formal education programs and its effectiveness and challenges that may be explored by further researchers. A detailed description of this chapter's major section is as follows:

5.1 Summary

Pakistan is among those few countries of the world which have large number of out of school children. Despite several efforts, universal primary education still seems to be a dream. Most of the out of school children belong to remote areas or poor families. Government of the Punjab, recognizing the potential of the non-formal and basic education has launched several initiatives of literacy and non-formal education projects particularly in the districts with low literacy rates and higher number of out of school children. Punjab Literacy & Non-Formal Basic Education (L&NFBE) Department revealed that studies are needed not only to explore the potential of Literacy and Non-Formal Basic Education projects but also to find the issues and challenges faced by the teachers and officials of these programs to make these programs more effective. This study was conducted to investigate the effectiveness and challenges of non-formal education programs in Punjab. The objectives of the study were to examine the effectiveness of non-formal education programs in streamlining the marginalized students and scaling up functional literacy level in Punjab. These explore the role of Non-Formal Education Programs in developing technical and vocational skills among students. These analyze the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab. These find out the relationship between achievement levels of students of Non-Formal Education Schools for the subjects English, Mathematics and Science, compare the achievement level of students for the subjects English, Mathematics and Science regarding gender, district and year. The aim is to find out the relationship between "streamlining and

marginalizing" and "scaling up functional literacy". This study was a mixed methods research. Population of the study consists of 2,315 teachers, 77, 424 students, 64 social mobilizers and 5 DEOs of districts Rahim Yar Khan, Muzaffargarh, Multan, D.G Khan, and Rajanpur. The sample of the study was consisted of 5 district education officers, 64 social mobilizers, 116 teachers and 774 students. Proportionate sampling technique was used to select teachers and students while universal sampling technique was used to select social mobilizers and DEOs. The data were collected through questionnaires, interview and PEC results. The validity of questionnaires was ensured through pilot study and expert opinion. The data were collected through personal visits to sampled institutions and participants. For the analysis of quantitative data, percentages, mean scores, standard deviation, correlation, t-test and ANOVA. Qualitative data were analyzed by using thematic analysis. Data analysis has been illustrated in the form of tables and graphs. Key findings, discussion, conclusions and recommendation based on data analysis have been presented in forthcoming text.

5.2 Findings

This section is based on triangulated findings as per research questions and hypotheses. Initially findings related to research questions have been given, afterwards, findings related to research hypotheses have been written. These findings are based on sampled participants' views and perceptions about the asked questions.

1. First research question was "How effective is the Non-Formal Education programs in providing safe, nonviolent, inclusive and effective learning environments?". This question was addressed by qualitative data collected from DEOs. Results indicated that:
 - i. An important obstacle affecting the efficiency of non-formal education programs is the low and untimely payments of teachers' honorarium. Due to the disturbed payment schedule teachers are less motivated. A number of teachers have ceased teaching altogether for lack of financial security.
 - ii. DEOs highlight governance in the context of public-private partnerships (PPP) as a way of enhancing non-formal education programs. While government is capable of providing constricting framework and infrastructure, the private sector (NGOs, companies, and philanthropic individuals) can mobilize funds,

technical resources, and creativity to increase the scope and effectiveness of the programs.

- iii. Strengthening program implementation means attending to the issues of the teachers and field staff such as complaints, financial assistance, and more humane working conditions. Establishing offices at the tehsil level can empower the administration to respond better to local needs and manage the program more effectively.
- iv. DEOs suggest several strategies to achieve this goal. Increasing teacher honoraria and ensuring timely payments can help attract and retain qualified teachers, which is crucial for delivering quality education. Hiring more teachers and providing sufficient funds are also recommended to address resource constraints and improve the capacity of non-formal schools. Additionally, the establishment of tehsil-level offices (administrative units below the district level) can help streamline program management and better cater to the needs of local communities.
- v. DEOs identified the need to resolve issues faced by teachers and field staff, as they are the frontline workers responsible for delivering these programs. Addressing concerns related to teachers and field staff, such as resolving their grievances and increasing their salaries, can boost morale and enhance their commitment to the programs.
- vi. Results underscored the significance of building partnerships and collaboration to support non-formal education initiatives. DEOs recognize the value of enhancing collaboration among different government departments and fostering public-private partnerships. By strengthening these linkages, non-formal education programs can leverage additional resources, expertise, and support to improve their reach and impact.

2. Second research question was “How effective is the Non-Formal Education programs in streamlining the marginalized students?”. This question was addressed by collecting quantitative data from teacher and social mobilizers, while qualitative data to address this question were collected from DEOs, teachers and social mobilizers.

- i. The results of the data analysis revealed that NFE programs are generally perceived to be effective in assisting marginalized students in acquiring new

skills and reducing educational inequalities. The responses from teachers regarding the role of non-formal education in streamlining marginalized communities indicated a strong positive perception, as reflected in a cumulative mean score of 4.14. The main finding indicates that the government needs to increase investment in NFE programs. Teachers strongly supported this notion that the government should invest more in NFE for marginalized communities. The quantitative results reflect the perceived value of NFE initiatives in opening up educational opportunities for marginalized communities.

- ii. Social mobilizers also exhibited a positive perception regarding the impact of non-formal education on marginalized communities, as reflected in the cumulative mean score of 3.96. Despite their positive perception, the variation in mean scores reflects the practical challenges they encounter in mobilizing communities, addressing literacy barriers, and securing adequate resources for non-formal education programs.
- iii. In relation to access, teachers and social mobilizers cited major problems and solutions. 40% teachers suggested that increased schools in inaccessible areas, 34% indicated that more personnel, and 26% stated that better school infrastructure would facilitate access to NFE programs. Social mobilizers pointed out lack of funds as the major hindrance and proposed increased teacher salary and learner kits to improve quality and effectiveness of instruction. Their insights suggest that the need to address logistical and financial obstacles is essential in making NFE programs more widely available and sustainable in marginalized communities.
- iv. The involvement of NGOs was also a strong feature of the research findings. Both teachers and social mobilizers pointed out the fact that NGOs helped in enhancing NFE by giving financial aid, school space, student essentials, and campaigns in the community. Social mobilizers highlighted that NGOs have built tent schools in the flood-hit regions so that the children do not lose education despite the lack of infrastructure in such disaster-stricken areas. NGOs were also recognized for their role in mobilizing funding, facilitating teacher training, and developing innovative learning materials, making them vital stakeholders in expanding NFE programs.
- v. District Education Officers have also emphasized increasing financial and human resources, such as budget increments to open up more NFE centres,

renovate infrastructure, and hire high-quality teachers. The DEOs further suggested that there should be courses on life skills, which should include communication, critical thinking, financial literacy, and entrepreneurship so that students gain practical, job-related skills. They also advised outreach strategies targeted at door-to-door campaigns and community engagement in order to create awareness and involvement. Such emphasis on middle-level education focusing on vocational and technical training would help their students improve employment prospects. Thus, the recommendations reflect a broader necessity to adjust programs of NFE according to the socio-economic conditions in the marginalized communities that educate not only for greater access but also for relevance and transformation.

- vi. DEOs suggested that skills-based courses can play a significant role in increasing the effectiveness and reach of non-formal education programs in streamlining and marginalizing communities in Punjab. If skills-based courses focus on developing practical, real-world skills that are directly applicable to the everyday lives and future employment prospects of learners.
- vii. DEOs suggested that mobilizing the community to engage them in the programs and ensuring that schools are established in areas where teachers are readily available. This approach can help address the issues of community participation and resource constraints.
- viii. Increasing the budget and human resource allocation can involve providing additional funding, increasing the number of teachers and improving the overall infrastructure and facilities.

3. Third research question was “ How effective are Non-Formal Education programs in scaling up functional literacy for the students?”. This question was addressed by collecting quantitative and qualitative data from teacher.

- i. 89% teachers rated non-formal education programs as accessible for individuals interested in improving their functional literacy skills in Punjab. 69% teachers reported 'Individual workbooks and assignments' should be the least likely method of teaching in non-formal education programs.
- ii. 79% teachers rated non-formal education programs as very effective in enhancing students' functional literacy (reading, writing, and arithmetic) skills. They also observed the positive impact of non-formal education programs on the functional literacy levels of students in Punjab.

- iii. The qualitative data provides further insights into the teachers' perspectives on enhancing the role of non-formal education programs in scaling up functional literacy. The teachers highlighted the need for providing learning materials, furniture, and teacher trainings, as well as increasing teacher salaries. Non-formal education is seen as helping to increase education in remote areas and providing education at the doorstep for marginalized communities.
- 4. Fourth research question was “what is the role of Non-Formal Education programs in developing vocational and technical skills among students? ’This question was addressed by collecting qualitative data from DEOs. The qualitative data analysis indicated that according to DEOs, non-formal education programs are effective in enhancing students’ technical and vocational skill and these programs provide life skills in NFES. DEOs indicated that to further improve the role of NFE programs in developing vocational and technical skills, there is need to adopt for a targeted approach to skill development to enhance the employability and livelihood opportunities for students.
 - i. The DEOs recognized the value of non-formal education in engaging learners and communities in income-generating activities. This highlights the potential of these programs to empower individuals and contribute to the economic development of local communities.
 - ii. One of the key challenges identified by DEOs is the lack of technical and vocational skill development trainings. This suggests a gap in the current non-formal education offerings, hindering the acquisition of practical skills that are in demand in the job market. To address these challenges, the DEOs propose several program enhancements. Firstly, they recommend the appointment of vocational and technically trained teachers to deliver specialized instruction. Secondly, they suggest that non-formal education programs should be expanded to cater to primary and middle-level students, ensuring a more comprehensive approach to skill development.
 - iii. The DEOs recognized the importance of industry collaboration in strengthening non-formal education programs. By partnering with industry and vocational training institutions, these programs can leverage industry expertise, resources and practical training opportunities to better prepare students for the workforce.
- 5. Fifth research question was “what are the challenges faced by social mobilizers and DEOs in the establishment of Non-Formal Education Schools in Punjab?”. This

question was addressed by collecting quantitative data from social mobilizers and qualitative data from social mobilizers and DEOs.

- i. The challenges faced by social mobilizers in establishing non-formal basic education schools (NFBES) are perceived as significant, with a cumulative mean score of 4.17 which indicated strong concerns about the challenges in setting up these institutions. 92.2% of social mobilizers indicated that distance and uncovered areas are big problems in establishing NFES. They also specified that resistance from the community is a major problem.
- ii. 62% Social Mobilizers agreed that the resistance from the community is a major problem in establishing NFES. 48% Social Mobilizers agreed that the distance is a big problem in establishing NFES and finding teachers is a significant problem in establishing NFES. 45% Social Mobilizers stated that fulfilling basic criteria is a key problem in establishing NFES.
- iii. The qualitative data of social mobilizers reveals challenges in providing necessary facilities and learner kits due to challenges in accessing remote locations, lack of infrastructure, and limited resources. They emphasize the need for establishing a dedicated Non-Formal Management Committee and contingency plans to ensure the continuity of teaching and learning.
- iv. DEOs stated that they are facing challenges related to lack of funding and resources, community engagement challenges, institutional and organizational challenges, socio-cultural barriers in establishing NFE schools. The data highlight the prevailing cultural norms and beliefs that difficulty in identifying suitable locations and teachers for non-formal schools, as well as the lack of transportation and accessibility for field staff to reach the NFE centers.
- v. DEOs highlighted the significant challenges posed by insufficient budget allocation, lack of infrastructure and facilities, and shortage of teaching and learning materials. DEOs often struggle to secure adequate resources to establish and maintain non-formal schools, which can hinder their ability to provide quality education to marginalized communities.
- vi. DEOs face challenges in garnering community awareness and support for NFE programs. There is often resistance, especially from the community, towards female education, and reaching out to marginalized and remote areas pose additional challenges. Effective community engagement is crucial for the

success of non-formal education initiatives, as it can foster ownership and participation.

vii. Results revealed that there are coordination and collaboration issues among different government departments, as well as a general lack of awareness about the establishment of non-formal schools. These institutional and organizational hurdles can impede the effective implementation and scaling up of NFE programs.

viii. Data highlighted that the prevailing cultural norms and beliefs that discourage participation in non-formal education, particularly for female students. Gender-based biases and discrimination, as well as the perceived lower value of non-formal education compared to formal schooling, act as significant barriers to the success of these programs.

ix. Data indicated operational challenges, such as the difficulty in identifying suitable locations and teachers for non-formal schools, as well as the lack of transportation and accessibility for field staff to reach the NFE centers. These operational constraints can hamper the effective delivery and monitoring of non-formal education programs.

6. Results of correlation ($r=0.8$) indicated that marks among total, English, mathematics and science subjects are significantly and positively correlated (with $r. 0.8$) with each other. So, Null hypothesis is failed to accept.

7. Results show difference ($t= 3.847, p<.05$) in the scores of male and female students. Male students show higher marks for total, English, Mathematics and science subjects' than that of female students. So, Null hypothesis is failed to accept.

8. In district wise comparison results showed significant differences ($F=3.053, p>.05$) found in the marks of total, English, mathematics and science subjects' marks among different districts. The maximum marks reported for the students belong to district Multan. So, Null hypotheses failed to accept.

9. In year wise comparison, results showed significant differences ($F=182.673, P>.05$) found in the marks of total, English, mathematics and science subjects' marks among different years (2019, 2020, 2021, 2022 and 2023). The maximum marks reported for the year 2023. So, Null hypothesis is failed to accept.

10. Results of correlation ($r= 0.9$) showed that “streamlining and marginalizing” and “scaling up functional literacy” are significantly and positively correlated with each other. So, Null hypothesis is failed to accept.

5.3 Discussion

The findings from the assessment of non-formal education (NFE) programs in southern Punjab provide valuable insights into both the progress and persistent challenges in expanding access to education beyond the formal system. The data gathered from district education officers (DEOs) highlights several areas that warrant further discussion and targeted interventions. One of the primary concerns raised is the difficulty in recruiting and retaining qualified teachers for NFE schools, particularly in underserved communities. The DEOs attributed this challenge to limited educational infrastructure and resources in these areas as well as insufficient compensation for teachers relative to their qualifications. This aligns with existing research on the challenges of teacher recruitment and retention in marginalized regions (Malik & Courtney, 2011; Rizvi & Elliot, 2007; Dehtiarova, et al., 2024). To address this issue, the DEOs suggested increasing teacher honoraria and ensuring timely payments, as well as hiring more teachers to meet the demand. Providing additional resources and professional development opportunities for NFE teachers could also help attract and retain qualified individuals.

Another key finding is the need to enhance community awareness and engagement in NFE programs. The DEOs reported that a lack of awareness about the NFE program within local communities was a barrier to securing teacher participation. This underscores the importance of community outreach and awareness-raising efforts to generate buy-in and support for NFE initiatives (Aga Khan Development Network, 2007; Quddus, 2005). Strategies such as increased community mobilization, collaboration with local leaders, and targeted communication campaigns could help address this challenge. The DEOs' feedback on the willingness of teachers to participate in a contingency plan that would allow students to use their premises also revealed a mixed response. While majority of responses indicated that teachers would be willing to do so and some of them suggested that this would depend on the teachers' financial conditions. This reflects the complex dynamics and potential tradeoffs involved in leveraging existing community resources to expand NFE access. Developing flexible

and mutually beneficial arrangements, perhaps with financial or other incentives for participating teachers, could help overcome this barrier.

The findings also highlight the need for more consistent and formalized reporting mechanisms between DEOs and project directors to ensure that operational challenges are effectively communicated and addressed in a timely manner (Bano, 2008; Jabeen et al., 2024). Establishing clear protocols and feedback loops could help strengthen the responsiveness and adaptability of NFE programs. In terms of improving the NFE program, the DEOs provided several key recommendations, including increasing teacher honoraria and ensuring timely payments, hiring more teachers, providing sufficient funds for establishing schools, and extending NFE to the tehsil (sub-district) level. These suggestions align with existing research on the importance of adequate and sustainable funding, teacher support, and decentralized implementation for the success of non-formal education initiatives (Aga Khan Development Network, 2007; Bano, 2008; Quddus, 2005). Overall, the findings from this assessment underscore the multifaceted nature of the challenges faced in expanding access to non-formal education in southern Punjab. Addressing these issues will require a comprehensive approach that focuses on strengthening teacher recruitment and retention, enhancing community engagement, improving operational and reporting mechanisms, and ensuring sufficient and equitable resource allocation. By addressing these key areas, policymakers and program implementers can work to enhance the effectiveness and sustainability of non-formal education initiatives, ultimately contributing to improved educational outcomes and greater equity in the region.

The data on the number of projects underway in each district provides insight into the scope and scale of non-formal education initiatives. While the majority of DEOs were managing four or more concurrent projects, the variations in project load could influence their ability to effectively oversee and coordinate these efforts. Ensuring appropriate resourcing and workload distribution is essential for successful program implementation (Malik & Courtney, 2011). The findings on the number of field and office staff available to each DEO offer valuable context on the human resources supporting non-formal education programs. The data indicates a range of twelve to eighteen field staff and three to thirteen office staff per district. Adequate staffing is a critical factor in the delivery and monitoring of non-formal initiatives (Aga Khan Development Network, 2007). Addressing any gaps in staffing capacity should be

a priority. Taken together, these results highlight both the progress and challenges in the implementation of non-formal education programs in southern Punjab. While the data points to some positive trends, such as relatively high female student enrollment and the presence of multiple concurrent projects, it also reveals significant disparities and areas for improvement.

By addressing these key areas, policymakers and program implementers can work to enhance the effectiveness and sustainability of non-formal education initiatives in southern Punjab, ultimately contributing to improved educational outcomes and greater equity in the region. The findings from qualitative data provide valuable insights into the challenges and opportunities faced in establishing and implementing non-formal education (NFE) programs in the Punjab region of Pakistan. The data gathered from district education officers (DEOs) highlights several key areas that merit further discussion and attention. One of the primary challenges identified is the difficulty in securing qualified teachers for NFE schools, particularly in deprived areas. The DEOs attributed this to a lack of educational infrastructure and resources in these communities, as well as inadequate compensation for teachers relative to their qualifications. This aligns with existing research on the challenges of teacher recruitment and retention in marginalized regions (Malik & Courtney, 2011; Rizvi & Elliot, 2007; Jabeen et al., 2024). To address this issue, the DEOs suggested increasing teacher honoraria and ensuring timely payments, as well as hiring more teachers to meet the demand. Providing additional resources and professional development opportunities for NFE teachers could also help attract and retain qualified individuals.

The DEOs also expressed concerns about the awareness and engagement of the local community in NFE programs. Some suggested that unawareness about the NFE program within the community was a barrier to securing teacher participation. This highlights the importance of community outreach and awareness-raising efforts to generate buy-in and support for NFE initiatives (Aga Khan Development Network, 2007; Quddus, 2005). Strategies such as increased community mobilization, collaboration with local leaders, and targeted communication campaigns could help address this challenge. Regarding the willingness of teachers to participate in a contingency plan that would allow students to use their premises, the DEOs' responses were mixed. While some of them indicated that teachers would be willing to do so and some suggested that this would depend on the teachers' financial conditions. This

reflects the complex dynamics and potential tradeoffs involved in leveraging existing community resources to expand NFE access. Developing flexible and mutually beneficial arrangements, perhaps with financial or other incentives for participating teachers, could help overcome this barrier.

The DEOs' feedback on informing their project directors about the challenges in establishing new NFE schools revealed a variety of approaches, with forty percent reporting that they use written communication, forty percent indicating that the method depends on the severity of the issue, and twenty percent relying on verbal communication. This suggests the need for more consistent and formalized reporting mechanisms to ensure that challenges are effectively communicated and addressed in a timely manner (Bano, 2008; Jabeen et al., 2024). Establishing clear protocols and feedback loops between DEOs and project directors could help strengthen the responsiveness and adaptability of NFE programs. In terms of the project directors' actions to address the challenges in establishing new NFE schools, the DEOs reported that they provided guidance and allocated resources to resolve issues. This points to the importance of strong leadership and institutional support in overcoming the operational and logistical challenges inherent in NFE program implementation (Malik & Courtney, 2011; Raza, 2010). Continued investment in capacity building, resource provision, and collaborative problem-solving at the project management level could further strengthen the effectiveness of NFE programs.

When it came to suggestions for improving the NFE program, the DEOs highlighted several key areas including increasing teacher honoraria and ensuring timely payments, hiring more teachers, providing sufficient funds for establishing schools and extending NFE to the tehsil (sub-district) level. These recommendations align with existing research on the importance of adequate and sustainable funding, teacher support and decentralized implementation for the success of non-formal education initiatives (Aga Khan Development Network, 2007; Bano, 2008; Quddus, 2005). The DEOs' additional feedback and comments on the NFE program further underscored the need for resolving issues faced by teachers and field staff, increasing their honoraria, and fostering public-private partnerships to enhance the effectiveness of NFBE. These insights echo the findings of previous studies that have highlighted the critical role of teacher welfare, community engagement, and collaborative governance

in strengthening non-formal education programs (Malik & Courtney, 2011; Raza, 2010; Rizvi & Elliot, 2007).

Regarding the accessibility of NFE programs to marginalized communities, the DEOs suggested several strategies, including mobilizing the community, establishing schools in areas with available teachers, increasing budgets and human resources and providing learners' kits in a timely manner. These recommendations are consistent with the literature on effective approaches to reaching underserved populations through non-formal education initiatives (Aga Khan Development Network, 2007; Quddus, 2005; Raza, 2010). Finally, the DEOs' additional comments and feedback on the role of NFE in streamlining and marginalizing in Punjab emphasized the importance of establishing NFE programs in rural areas and offering life skills-based courses. This aligns with the broader goals of non-formal education in promoting social and economic inclusion, particularly for disadvantaged communities (Bano, 2008; Malik & Courtney, 2011; Rizvi & Elliot, 2007).

In conclusion, the findings from this research provide valuable insights into the multifaceted challenges and opportunities associated with the implementation of NFE programs in Punjab, Pakistan. The DEOs' perspectives highlight the critical importance of addressing teacher recruitment and retention, community engagement, institutional support, resource allocation and targeted interventions to reach marginalized populations. By addressing these key areas, policymakers and program implementers can work to enhance the effectiveness and accessibility of NFE initiatives, ultimately contributing to the broader goals of educational equity and inclusive development in the region.

The findings of teachers and social mobilizers provided a comprehensive overview of the program's reach, the characteristics of participating teachers and their perspectives on the efficacy and impact of the non-formal education initiative. One notable aspect of the findings is the equal distribution of teachers across the five surveyed districts - Rahim Yar Khan, Muzaffargarh, Multan, Dera Ghazi Khan, and Rajanpur. This suggests a concerted effort to ensure geographical representation and inclusivity in the program's implementation. However, the higher proportion of teachers from Rahim Yar Khan compared to the other districts may warrant further investigation to understand the factors contributing to this slightly uneven distribution.

The gender breakdown of the respondents reveals a significant majority of female teachers which aligns with the general trend of female dominance in the teaching profession, particularly in the context of Pakistan (Malik & Courtney, 2011). This gender representation may have implications for the program's ability to engage and cater to the needs of both male and female students as well as the dynamics within the teaching workforce. The educational qualifications of the teachers indicate that the majority hold bachelor's degrees with a significant proportion also possessing master's degrees (40.5%). This finding suggests that the program has managed to attract a relatively qualified teaching cadre which could contribute to the quality of instruction and the ability to effectively implement the non-formal education curriculum.

The distribution of schools between urban and rural locations underscores the program's reach, extending its services to both urban and marginalized rural communities. This geographic diversity is crucial as it aligns with the common goal of non-formal education programs to provide educational opportunities to underserved populations (Zia & Durrani, 2020). The enrollment data for male and female students provides a nuanced understanding of the program's impact on access to education. The findings indicate that the majority of schools have relatively high enrollments with fifteen male students and twenty-five female students being the most common enrollment figures. This suggests that the non-formal education program has been successful in attracting and retaining a substantial number of students' particularly female students who may have otherwise lacked access to formal educational opportunities.

The teachers' perceptions of the program's effectiveness and its potential to address marginalization and acquire new skills for students are particularly insightful. The overwhelming majority of teachers strongly agree that the program is helpful for students in acquiring new skills, highlighting the program's perceived value in enhancing the learning and development of the target population. Additionally, the majority of teachers agree that the non-formal education program can help in streamlining and supporting marginalized communities, while a significant proportion strongly agree with this assertion. This positive outlook from the teaching staff suggests that the program is viewed as a valuable tool in addressing educational inequities and promoting social inclusion. These findings align with the broader body of research on the potential of non-formal education programs to serve as a complementary approach

to formal schooling, particularly in contexts where access to quality education is limited (Blaak et al., 2013; Melania et al., 2024). Non-formal education has been recognized for its ability to provide flexible, context-specific and learner-centered educational opportunities that cater to the needs of marginalized communities (Zia & Durrani, 2020).

However, the study also reveals that a notable proportion of teachers were unable to comment on the program's helpfulness in acquiring new skills and its potential to address marginalization. This suggests the need for a more comprehensive understanding and communication of the program's objectives, outcomes and impact among the teaching staff. Addressing this knowledge gap could strengthen the teachers' buy-in and their ability to effectively implement and advocate for the program. Furthermore, the findings provide a foundation for future research and program improvements. The demographic data, enrollment figures and teachers' perceptions can inform the development of targeted strategies to enhance the program's reach, tailor the curriculum to students' needs and address any challenges or inequities that may exist. Longitudinal studies tracking the long-term educational and social outcomes of the non-formal education program would also contribute to a more robust understanding of its impact.

In conclusion, the findings presented in the "Teachers Results" document offer a comprehensive snapshot of the non-formal education program in the Punjab region of Pakistan. The data highlights the program's efforts to ensure geographical and gender representation, the generally positive perceptions of teachers regarding the program's effectiveness and potential to address marginalization and the areas that may require further attention and improvement. These insights can inform the ongoing refinement and expansion of non-formal education initiatives, ultimately contributing to the goal of providing quality educational opportunities and promoting social inclusion in underserved communities. The findings from this qualitative study provide valuable insights into the perspectives of social mobilizers regarding the accessibility and promotion of non-formal education programs for marginalized communities in Punjab, Pakistan. The data highlights several key areas that warrant further discussion and potential intervention.

The first set of findings explores how non-formal education programs can be made more accessible to marginalized communities. A majority of the social mobilizers

emphasized the need to address financial issues and provide learner and center kits to facilitate access. This aligns with existing research which has identified financial barriers as a significant challenge in extending educational opportunities to underprivileged populations (Alcott & Rose, 2015; Lall, 2007). Provision of necessary learning materials and infrastructure can help reduce the out-of-pocket expenses borne by marginalized families, making non-formal programs more viable options.

Additionally, majority of the respondents highlighted the importance of establishing new schools to improve accessibility. This speaks to the need for geographic expansion of non-formal education services to reach remote and underserved areas. Studies have shown that the proximity and availability of educational facilities is a key determinant of enrollment, particularly for marginalized groups who may face mobility constraints (Mughal & Aldridge, 2017; Sabates et al., 2013). Strategically locating new non-formal schools in marginalized communities could help bridge the gap in educational access.

The findings also shed light on the potential role of NGOs in promoting non-formal education in marginalized communities. A majority of the social mobilizers suggested that NGOs could contribute by providing physical spaces for schools, particularly in flood-affected areas of the district. This reflects the value of NGOs in leveraging their resources and networks to supplement government efforts in expanding educational infrastructure (Fennell & Malik, 2012; Malik & Courtney, 2011). Furthermore, many of the respondents highlighted the role of NGOs in supplying student kits and necessary items. This aligns with the earlier discussion on the importance of addressing financial barriers faced by marginalized families. NGOs can play a crucial part in mobilizing resources and providing essential learning materials to support the participation of disadvantaged students in non-formal education programs (Cameron, 2011; Sabates et al., 2013).

When asked about additional feedback on the role of non-formal education in streamlining and marginalizing in Punjab, the social mobilizers provided several important perspectives. Most of the respondents emphasized the potential of non-formal education to enhance educational attainment in deprived areas. This speaks to the transformative power of non-formal programs in reaching marginalized communities and improving their educational outcomes (Awan & Zia, 2020; Hussain et al., 2013).

A significant proportion of the social mobilizers also suggested the establishment of new non-formal schools with a focus on technical and vocational skills training. This aligns with research highlighting the value of incorporating practical, market-relevant skills in educational programs for marginalized populations (Bonini, 2015; Malik & Courtney, 2011). By equipping learners with employable skills, non-formal education can contribute to their socioeconomic empowerment and streamlining of marginalized communities. Moreover, majority of the respondents proposed the creation of new vacancies to improve the performance of the non-formal education department. This speaks to the importance of strengthening institutional capacity and human resources to effectively deliver and scale up non-formal education services (Cameron, 2011; Malik & Courtney, 2011). Investing in the professional development and staffing of the non-formal education sector can enhance its responsiveness and impact on marginalized communities.

The findings from the fourth question unanimously highlighted the key benefit of non-formal education programs in enhancing literacy rates and providing education at the doorstep of deprived and remote areas. This aligns with existing research that has documented the positive impact of non-formal education in improving access to learning opportunities for marginalized groups, particularly in underserved regions (Awan & Zia, 2020; Sabates et al., 2013). The flexibility, community-based approach, and focus on practical skills that characterize non-formal education programs make them well-suited to addressing the unique challenges faced by marginalized populations (Bonini, 2015; Hussain et al., 2013). By bringing education closer to the communities and tailoring the curriculum to their needs, non-formal programs can effectively bridge the educational divide and foster greater inclusion.

The final set of findings explores the specific skill and knowledge areas that the social mobilizers believe should be the focus of non-formal education programs for marginalized communities in Punjab. The responses highlight the need for a diverse range of skills, including automobile and agriculture mechanics, technical education such as dress making and beautician courses, vocational skills and computer skills. This multifaceted approach aligns with the literature on effective skill development strategies for marginalized populations. Studies have emphasized the importance of providing a combination of technical, vocational, and digital skills to enhance the employability and livelihood opportunities of disadvantaged learners (Bonini, 2015; Malik & Courtney,

2011). By tailoring the curriculum to the local context and market demands, non-formal education programs can better equip marginalized individuals with the competencies required to secure sustainable livelihoods and achieve socioeconomic mobility.

5.4 Conclusions

Conclusions are in line with the objectives of the study:

1. Non-Formal Education programs are playing important role in streamlining the marginalized students and scaling up functional literacy level in Punjab as findings indicated positive perceptions about the non-formal education programs in Punjab with a focus on improving accessibility, effectiveness and impact on functional literacy. It is concluded that expanding the reach and resources of these programs as well as involving NGOs can further improve accessibility and impact for marginalized communities in Punjab. Improving non-formal education programs in Punjab needs to have a multi-pronged strategy, which incorporates financial security of teachers, improvement in administration, and stronger collaborations. Sustainable funding, timely release of payments for teachers, and public-private collaborations are important aspects that ensure sustainable success and openness of such programs to marginalized sections (Objective 1).
2. The triangulation of quantitative and qualitative findings indicates that though NFE programs are generally perceived as effective in the acquisition of skills but further government investment and sustained NGO engagement are crucial to expand NFE programs and upgrade their quality. Additionally, adding skill-based courses and strengthening outreach efforts can also improve their long-term impact. All these measures together would make the education system more inclusive and sustainable while empowering marginalized communities and promoting socio-economic development (Objective 2).
3. Key challenges in establishing and sustaining non-formal education schools are lack of resources/infrastructure, transportation, security, and financial support, which hinders the ability to set up and maintain these schools. Challenges in recruiting and retaining qualified teachers due to the rural-urban migration of educated teachers and the perceived low status of teaching in non-formal education settings. Operational challenges such as identifying suitable locations and ensuring accessibility, which can impede the effective delivery of non-

formal education programs have been also highlighted. These findings altogether emphasize the requirement of continued financing by policymakers in order to ensure the strengthening of NFE efforts (Objective 3).

4. Results have showed significant relationship between achievement levels of students of Non-Formal Education Schools for the subjects English, Mathematics and Science (Objective 4).
5. Male students show higher marks for total, English, Mathematics and science subjects' than that of female students. The maximum marks reported for the students belong to district Multan. The maximum marks reported for the year 2023 (Objective 5).
6. A significant relationship has been found in "streamlining and marginalizing" and "scaling up functional literacy" (Objective 6).

5.5 Recommendations

Based on the conclusions, following key recommendations emerge to enhance the effectiveness and reach of non-formal education programs in the region:

1. It was concluded that existing NFE programs are playing effective role, hence by involving NGOs, accessibility and impact for marginalized communities in Punjab may be enhanced further. Therefore, it is recommended to Government of Punjab:
 - Develop tailored approaches for improving access and retention, particularly for marginalized groups, based on the unique demographic and socioeconomic characteristics of each district.
 - Ensure the continuity of educational services during natural disasters or other emergencies, highlighting the need for contingency planning and resilient infrastructure.
 - Enhance partnership and collaboration such as promoting public-private partnerships to leverage additional resources, expertise, support and improving collaboration among different government departments are seen as crucial strategies to enhance the reach and impact of non-formal education programs.
 - Increase the number of NFBE schools in remote areas, increase staff and improving facilities can make non-formal education more accessible to marginalized communities.

- NGOs may play a significant role in promoting non-formal education by providing financial assistance, premises, necessities and supporting awareness campaigns.

2. The results highlighted the need to adopt for a targeted approach to skill development focusing on vocational and technical skills to enhance the employability and livelihood opportunities for students. So, it is recommended that:

- Consistent, high-quality training opportunities for stakeholders of NFE programs to build their knowledge and skills in program management, community engagement, and monitoring and evaluation may be organized by literacy and non-formal basic education department.
- Besides, life skills-based courses may be started to increase the role of non-formal education in empowering marginalized communities. It is expected that incorporating practical real-world skills like communication, problem-solving and entrepreneurship can make non-formal education more relevant and valuable for marginalized learners.
- Additionally, Government of Punjab may allocate a larger portion of the education budget specifically for developing technical and vocational skills programs.
- Collaboration with technical and vocational training institutes may be ensured to enhance the level of technical and vocational skills through non-formal education programs in Punjab.
- Provide skill-based education, which may be beneficial for the learners to get job or work to improve their financial needs.

3. The results showed that key challenges in establishing and sustaining non-formal education schools are lack of resources, challenges in recruiting and retaining qualified teachers, and operational challenges. Hence, it is recommended to:

- Provide sufficient transportation according to the needs of the areas to DEOs and social mobilizers to enhance their efficiency.
- Government of Punjab may increase the honoraria of teachers and ensure timely payments, hire more teachers to improve the capacity of non-

formal schools, and establish tehsil-level offices to streamline program management.

- Strengthen program implementation by resolving challenges faced by teachers and field staff, such as addressing their grievances and increasing their salaries, is also identified as a priority.
- Induction training may be provided to all newly appointed NFE teachers before they begin teaching, equipping them with fundamental teaching skills, classroom management techniques, and orientation to NFE contexts. Pre-service training is equally critical and may combine theoretical coursework with practical teaching experience, emphasizing curriculum design, pedagogy, and classroom culture.

4. Results showed significant relationship between achievement levels of students of NFE Schools for the subjects English, Mathematics and Science, therefore, it is recommended that administrators may strengthen subject-specific instructional strategies of teachers by providing them targeted teacher training and additional learning resources with the aim of improving achievement level of students. Besides, supplementary material, educational gadgets (tablets) may be provided for both teachers and students.

- Low-cost audio-visual aids and ICT tools may be gradually introduced to support interactive learning. Learning resources and curriculum materials may be aligned with real-life skills and local needs.

5. The results indicated that male students show higher marks for total, English, Mathematics and science subjects' than that of female students, students belong to district Multan obtained maximum marks and maximum marks have been reported for the year 2023 Therefore, it is recommended that:

- Girls of marginalized areas may be facilitated by ensuring capacity building of teachers to provide guidance for better learning in core subjects.
- Instructional strategies of NFE teachers that are being practiced in Multan may be implemented in other regions as well to upgrade academic achievement of students. For instance: individualized and

interactive teaching methods rather than relying heavily on workbooks and assignments.

- Initiatives may be taken to ensure the continuity of students' academic achievement that they have made in the year 2023.

6. A significant relationship has been found in “streamlining and marginalizing” and “scaling up functional literacy”. So, it is suggested that:

- For scaling up functional literacy, non-formal education programs may be started in specific areas, such as district jails, Bait-ul-Mal, and Darul Aman, and emphasized the importance of collaboration with NGOs to provide resources and support.
- Presently the non-formal education is provided only at primary level. It is recommended to enhance its capability to middle class. To further improve streamlining in marginalized areas, teachers believe the government may invest more in non-formal education programs for marginalized communities, and that these programs may be targeted towards specific age groups or genders.
- It is also recommended to implement robust monitoring and evaluation systems to track the progress, challenges, and impact of non-formal education programs, and use these insights to inform and refine program strategies.

7. NFE centers may provide a safe, clean, and well-ventilated classroom with basic amenities such as clean drinking water, adequate lighting, and separate toilets for boys and girls. While community spaces or teacher homes may be used initially, investment in dedicated class halls may be prioritized. A positive emotional and psychological environment may be fostered through teacher training in classroom management and inclusive practices.

5.5.1 Recommendation for Future Researchers

Following are the recommendations for the future research about this topic.

- i. Future researchers may conduct studies on this topic in other provinces and national level as well.
- ii. Comparative studies of different provinces may be conducted to explore diverse practices with reference to NFE programs.

- iii. Students, parents and other community members may be engaged in future research studies to have broader perspective about effectiveness of NFE programs.

5.6 Limitations of Study

1. **Geographic limitations:** The research focuses on the non-formal education programs in the southern districts of Punjab, Pakistan. The findings and recommendations may not be directly applicable to other regions or provinces within Pakistan, as the context and challenges may vary.
2. **Data availability and scope:** The research relies on data gathered from district education officers (DEOs), social mobilizers and teachers which provides valuable insights but may not represent a comprehensive picture of the non-formal education landscape. The data appears to be mostly quantitative, and there may be a need for more in-depth qualitative exploration of the challenges and opportunities faced by various stakeholders, such as teachers, students and community members.
3. **Evolving nature of non-formal education programs:** Non-formal education programs are often dynamic and subject to changes in policies, funding and implementation strategies. The research findings may not fully capture the latest developments and adaptations in the programs, as the data were collected prior to August 2023.
4. **Generalizability and transferability:** While the research provide valuable insights into the non-formal education programs in the southern districts of Punjab, the extent to which the findings can be generalized or transferred to other contexts, both within Pakistan and internationally, may be limited due to the specific geographic and contextual factors.
5. **Potential biases:** As the research relies on self-reported data from DEOs, there may be potential biases or limitations in their perspectives, which could influence the interpretation and presentation of the findings.

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APPENDICES

Appendix A



**INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD – PAKISTAN
Faculty of Education
Department of Teacher Education**

November 13, 2023

The Director General,
Directorate General Literacy & NFBE,
5th floor, Al-Falah Building Mall Road Lahore

Subject: PERMISSION FOR DATA COLLECTION

This is to certify that **Ms. Tahira Rafiq** Regd. No. 161-FSS/PHDEDU/F19 is a bonafide student of Ph.D. Education in the Department of Teacher Education, International Islamic University, Islamabad since Fall 2019 semester. Currently she is working on her thesis titled: "**Effectiveness and Challenges of Non-Formal Education Programs in Punjab**" under my supervision. She wants to collect data from your prestigious institution for her Research thesis of Ph.D. degree program. In this regard, you are requested to kindly facilitate her in data collection.

I shall be highly grateful for your kind cooperation


Prof. Dr. Samina Malik
Supervisor/Rector IIUI
Department of Teacher Education
Faculty of Education

Appendix B

SEMI-STRUCTURED INTERVIEW FOR DEOs (Literacy)
EFFECTIVENESS AND CHALLENGES OF NON-FORMAL EDUCATION
PROGRAMS IN PUNJAB

This research aims to study the effectiveness of non-formal education program in Punjab. The objective of this study is to investigate the challenges in establishing the non-formal education program. Effectiveness of non-formal education program, role of non-formal education in streamlining and marginalizing the population, role of non-formal education in scaling up functional literacy and role of non-formal education in developing vocational and technical skills among students. You are requested to answer the following questions as you feel right according to your experience.

Demographic Information

Please answer the questions relevant to you.

1. **Gender:** Male Female
2. **Number of Professional Trainings:**
3. **Current Enrollment of District: Boys** Girl
4. **Target Schools of your district: Boys** Girls
5. **How many projects are undergoing in your Supervision?**
6. **How much field staff you have?**
7. **How much field staff you have?**
8. **Enrolled Students**

2019	2020	2021	2022	2023
Boys:	Boys:	Boys:	Boys:	Boys:
Girls:	Girls:	Girls:	Girls:	Girls:

9. Dropout students:

2019	2020	2021	2022	2023
Boys:	Boys:	Boys:	Boys:	Boys:
Girls:	Girls:	Girls:	Girls:	Girls:

10. How many students were streamlined under your supervision?

2019	2020	2021	2022	2023
Boys:	Boys:	Boys:	Boys:	Boys:
Girls:	Girls:	Girls:	Girls:	Girls:

Interview Questions

- 1) Non-Formal Education Schools can sometimes encounter challenges in securing qualified teachers due to various factors. Please tell about these factors.
- 2) Would teachers be willing to participate in a contingency plan in exchange for allowing students to use their premises?
- 3) Do you inform your project director about the challenges in establishing new schools? If yes mention the way in which you inform to your project director (Verbal or written).
- 4) What does your project director do to reduce the challenges in establishing new schools?
- 5) Would you suggest some changes to improve the program? If yes enlist them.
- 6) Would you like to share any additional feedback or comments about the program?
- 7) How can non-formal education programs be made more accessible to marginalized communities in Punjab?
- 8) Would you like to share any additional comments or feedback about the role of non-formal education in streamlining and marginalizing in Punjab?
- 9) Are there any specific skills or knowledge areas that you believe should be the focus of non-formal education programs for marginalized communities in Punjab?
- 10) In your opinion, what are the key benefits of non-formal education programs for developing technical and vocational skills in Punjab?
- 11) What are the major challenges or barriers faced by individuals in accessing and participating in non-formal education programs for technical and vocational skills development in Punjab?
- 12) Have you observed any positive impact of non-formal education programs on the development of technical and vocational skills among individuals in Punjab?
- 13) In your view, what could be done to further enhance the role of non-formal education programs in developing technical and vocational skills in Punjab?
- 14) Are there any specific technical or vocational areas where you believe non-formal education programs should focus more to address the skills development needs in Punjab?
- 15) How do you perceive the collaboration between non-formal education programs and industry stakeholders (employers, trade associations, etc.) in Punjab to promote technical and vocational skills development?
- 16) What recommendations would you provide for policymakers and stakeholders to strengthen the impact of non-formal education programs on technical and vocational skills development in Punjab?
- 17) Is there anything else you would like to share about the role of non-formal education programs in developing technical and vocational skills in Punjab?

Thank You for Your Feedback

Appendix C

QUESTIONNAIRE FOR SOCIAL MOBILIZERS

EFFECTIVENESS AND CHALLENGES OF NON-FORMAL EDUCATION PROGRAMS IN PUNJAB

This research aims to study the effectiveness of non-formal education program in Punjab. The objective of this study is to investigate the challenges in establishing the non-formal education program. Effectiveness of non-formal education program, role of non-formal education in streamlining and marginalizing the population, role of non-formal education in scaling up functional literacy and role of non-formal education in developing vocational and technical skills among students. You are requested to answer the following questions as you feel right according to your experience.

Demographic Information

Please answer the questions relevant to you.

1. . Qualification:

B. A/B. Sc M. A/M. Sc M. Phil Ph. D

2. Number of Social Mobilizing Trainings Attended:

3. Total Allocated Schools: Urban Rural

4. Current Enrollment in your allocated schools:

5. Challenges in Establishing NFBES

Q1: Community is a necessary element for establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q2: Famous personality of the community play an important role in establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q3: Statistical Data of the community play significant role in establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q4: Distance is a very big difficulty in establishing new NFBES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q5: Resistance from community is a major problem in establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q 6: Finding teachers is a significant problem in establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q7: Uncovered areas in the community are very big problem in establishing NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

Q8: Fulfilling the basic criteria creates problems in establishing new NFES

(A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree

6. Streamlining and Marginalizing

- 1) This program is helpful for out of school children to acquire new skills.
(1) Strongly Agree (2) Agree (3) Undecided (4) Disagree (5) Strongly Disagree
- 2) Non-formal education is helping in streamlining and marginalized communities.
(1) Strongly Agree (2) Agree (3) Undecided (4) Disagree (5) Strongly Disagree
- 3) Non-formal education is helping to reduce the ill literacy in deprived areas of Punjab.
(1) Strongly Agree (2) Agree (3) Undecided (4) Disagree (5) Strongly Disagree
- 4) Government should more focus on nonformal education programs for marginalized communities?
(1) Strongly Agree (2) Agree (3) Undecided (4) Disagree (5) Strongly Disagree

Interview Questions

- 1) What kind of challenges social mobilizers face in finding the teachers for Non-Formal Basic Education School?
- 2) Do the teachers agree to take the contingency as they use their premises for students?
- 3) Please enlist the challenges you face (if any) in providing the facilities to teachers at the school.
- 4) Please enlist the challenges you face (if any) in providing the facilities to the students at newly established school.
- 5) Do you inform your District Officer about the challenges in establishing new schools? If yes mention the way in which you inform to your District Officer (Verbal or written).
- 6) What does your District Officer do to reduce the challenges in establishing new schools?
- 7) How can non-formal education programs be made more accessible to marginalized communities in Punjab?
- 8) What role can non-governmental organizations (NGOs) play in promoting nonformal education in marginalized communities?
- 9) Would you like to share any additional comments or feedback about the role of non-formal education in streamlining and marginalizing in Punjab?
- 10) What are the key benefits of non-formal education programs for marginalized communities?
- 11) Are there any specific skills or knowledge areas that you believe should be the focus of non-formal education programs for marginalized communities in Punjab?

Thank You for Your Feedback

Appendix D

QUESTIONNAIRE FOR TEACHERS

EFFECTIVENESS AND CHALLENGES OF NON-FORMAL EDUCATION PROGRAMS IN PUNJAB

This research aims to study the effectiveness of non-formal education program in Punjab. The objective of this study is to investigate the challenges in establishing the non-formal education program. Effectiveness of non-formal education program, role of non-formal education in streamlining and marginalizing the population, role of non-formal education in scaling up functional literacy and role of non-formal education in developing vocational and technical skills among students. You are requested to answer the following questions as you feel right according to your experience.

To be filled by Teachers

Demographic Information

Please answer the questions relevant to you.

1. District:

2. **Gender:** Male Female

3. Department Name:

4. Qualification:

Matric F.A/F.Sc B.A/B.Sc M.A/M.Sc M.Phil Ph.D

5. Professional Qualification:

B.Ed M.Ed Others

6. **School Location:** Urban Rural

7. School Code:

8. **Current Enrollment:** Boys: Girls:

9. Enrolled Students

2019	2020	2021	2022	2023
------	------	------	------	------

Boys:	Boys:	Boys:	Boys:	Boys:
-------	-------	-------	-------	-------

Girls:	Girls:	Girls:	Girls:	Girls:
--------	--------	--------	--------	--------

10. Dropout students:

2019	2020	2021	2022	2023
------	------	------	------	------

Boys:	Boys:	Boys:	Boys:	Boys:
-------	-------	-------	-------	-------

Girls:

Girls:

Girls:

Girls:

Girls:

11. How many students were streamlined:

2019

2020

2021

2022

2023

Boys:

Boys:

Boys:

Boys:

Boys:

Girls:

Girls:

Girls:

Girls:

Girls:

12) Streamlining and Marginalizing

- 1) This program is helpful for students to acquire new skills.
(1) Strongly Agree (2) Agree (3) Can't Say (4) Disagree (5) Strongly Disagree
- 2) Non-formal education program can help in streamlining and marginalized communities.
(1) Strongly Agree (2) Agree (3) Can't Say (4) Disagree (5) Strongly Disagree
- 3) Non-formal education program can help in reducing marginalization in Punjab.
(1) Strongly Agree (2) Agree (3) Can't Say (4) Disagree (5) Strongly Disagree
- 4) Government should invest more in nonformal education programs for marginalized communities?
(1) Strongly Agree (2) Agree (3) Can't Say (4) Disagree (5) Strongly Disagree
- 5) Nonformal education programs should be targeted towards specific age groups or genders?
(1) Strongly Agree (2) Agree (3) Can't Say (4) Disagree (5) Strongly Disagree

13. Scaling up functional literacy

- 1) How would you rate the effectiveness of the non-formal education program(s) in enhancing students' functional literacy (reading, writing and arithmetic) skills
(1) Not Effective (2) Least Effective (3) Can't say (4) effective (5) Very Effective
- 2) How accessible are non-formal education programs for individuals interested in improving their functional literacy skills in Punjab?
(1) Not accessible (2) Least accessible (3) can't say
(4) Accessible (5) Highly accessible
- 3) Have you observed any positive impact of non-formal education programs on the functional literacy levels of students in Punjab?
(1) Yes Observed (2) Not Observed (3) Can't Say
4. What is the main focus of functional literacy in the context of this program?

- (a) Acquiring advanced reading and writing skills
- (b) Developing critical thinking and analytical abilities
- (c) Equipping children with practical skills for daily life and livelihood
- (d) Preparing children for formal school systems

5. Which of the following methods is LEAST likely to be used in the non-formal education programs for functional literacy?

- (a) Interactive workshops and activities
- (b) Traditional classroom lectures
- (c) Storytelling and drama for engaging learning
- (d) Utilizing local knowledge and context

Interview Questions

1. How can non-formal education programs be made more accessible to marginalized communities in Punjab?
2. In your opinion, what role can non-governmental organizations (NGOs) play in promoting non-formal education in marginalized communities?
3. Would you like to share any additional comments or feedback about the role of non-formal education in streamlining and marginalizing in Punjab?
4. In your opinion, what are the key benefits of non-formal education programs for marginalized communities?
5. Are there any specific skills or knowledge areas that you believe should be the focus of non-formal education programs for marginalized communities in Punjab?
6. In your view, what could be done to further enhance the role of non-formal education programs in scaling up functional literacy in Punjab?
7. Are there any specific areas or sectors where you believe non-formal education programs should focus more to address the functional literacy needs in Punjab?
8. How do you perceive the collaboration between non-formal education programs and relevant stakeholders (such as government, NGOs, or community organizations) in Punjab to promote functional literacy?
9. What recommendations would you provide for policymakers and stakeholders to strengthen the impact of non-formal education programs on functional literacy in Punjab?
10. In your opinion, what are the key benefits of non-formal education programs for scaling up functional literacy in Punjab?

Thank You for Your Feedback

Appendix E

LIST OF EXPERTS

Following experts validated the research instruments;

S.No	Name, Designation & Affiliation	Area of Specialization
	Dr. Rana Muhammad Dilshad, Associate Professor, Department of Education, BZU, Multan	Education
	Dr. Samee ullah, Assistant Professor, Department of Education, BZU, Multan	Education
	Dr. Erum Aslam Khan, Assistant Professor, Department of Education, BZU, Multan	Education
	Dr. Muhammad Jamil, Lecturer, Department of Education, G.C Women University Sialkot	Education
	Dr. Humaira Akram, Assistant Professor, Department of Teacher Education, FoE, IIUI	Teacher Education

Appendix F



INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD – PAKISTAN
FACULTY OF EDUCATION
DEPARTMENT OF TEACHER EDUCATION

CERTIFICATE OF VALIDATION

Research Title: EFFECTIVENESS AND CHALLENGES OF NON-FORMAL
EDUCATION PROGRAMS IN PUNJAB

By: Ms. Tahira Rafiq (161-FSS/PHDEDU/F19)

This is to certify that the attached research instruments, developed by Ms. Tahira Rafiq student of PhD Education, underwent validation by me. It is considered that the instruments developed for the research are according to the objectives of the research and it also assures adequate face and content validity. The instruments had passed through careful examination and were proven substantially proven useful for her PhD thesis.

CERTIFIED BY:

Name: Dr. Rana M. Dilshad
Designation: Associate - professor
Institution: Department of Edu B ZU
Department: Dept of Edu BZU Multan
Signature: D
Chairman, Department of Education
Date: 10/01/2022
B.Z. University, Multan



INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD – PAKISTAN
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CERTIFIED BY:

Name: DI SAMEE-UZZAH
Designation: Assistant Professor
Institution: BZ University, Multan
Department: Department of Education
Signature: Samee



INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD – PAKISTAN
FACULTY OF EDUCATION
DEPARTMENT OF TEACHER EDUCATION

CERTIFICATE OF VALIDATION

Research Title: EFFECTIVENESS AND CHALLENGES OF NON-FORMAL
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By: Ms. Tahira Rafiq (161-FSS/PHDEDU/F19)

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CERTIFIED BY:

Name: Dr. Elmum Aslam Khan
Designation: Associate Professor
Department: Department of Education
Institution: University of Multan
Department: Dept of education
Signature: Elum Khan



INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD – PAKISTAN

FACULTY OF EDUCATION

DEPARTMENT OF TEACHER EDUCATION

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CERTIFIED BY:

Name: Dr. Muhammad Jamil

Designation: Lecturer

Institution: GC Women University Sialkot

Department: Education

Signature:

Date: 10-03-2023

Appendix G



MULTAN POST GRADUATE COLLEGE, MULTAN

174-Near Education Board Gulgasht Colony Multan: 0616520942, 03007388442

Date: 24-12-2024

Ref. No: MPGC/1725/24

Subject: Editing Certificate

Dear Madam

It is to certify that the Thesis Entitled: "**Effectiveness and Challenges of Non-Formal Education Programs in Punjab**" is **edited by me**. I have thoroughly checked each mistake of English language and spelling of the whole thesis.

A handwritten signature in black ink, appearing to read "Shafiq", is placed above the text identifying the signer.

Dr. Muhammad Shafiq
Professor in English
Multan Post Graduate College
Multan

Demographic Data of Participants
Teachers

Table 4.13

Frequency of teachers and students from each District

Sr. No.	District Name	Teachers (n)	%	Students (n)	%
1	Rahim Yar Khan	27	23	175	23
2	Muzaffargarh	25	21	167	22
3	Multan	25	21	166	21
4	D.G Khan	20	18	136	18
5	Rajanpur	19	17	130	16
Total		116	100	774	100

Table 1 indicates the frequency and percentage of teachers and students from each district. 23% were taken from Rahim Yar Khan, 21% teachers were taken from Muzaffargarh, equal number of teachers was taken from Multan (21%), 18% teachers were taken from Dera Ghazi Khan and 17% teachers were taken from Rajanpur.

Table 4.14

Gender of the Respondents

Gender	Frequency	Percentage
Male	15	12.9%
Female	101	87.1%
Total	116	100%

The table 2 indicates the frequency of gender of the respondents. According to the findings there were 15 male respondents which were 12.9% of the total sample size and 101 female respondents which were 87.1% of total sample size. This finding indicates that the majority of the respondents were females.

Table 4.15

Qualification of respondents

Qualification	Frequency	Percentage
Bachelor	69	59.5%
Master	47	40.5%
Total	116	100%

Table 3 indicates the frequency of qualification of respondents. According to the findings 69 respondents had Bachelor degree which were 59.5% of the total sample size

and 47 respondents had Master degrees which were 40.5% of total sample size. This indicated that the majority of the respondents had Bachelor degree.

Table 4.16

Location of the School

Location	Frequency	Percentage
Urban	45	38.8%
Rural	71	61.2%
Total	116	100%

Table 4 indicates the location of the school. Findings indicated that there were 45 urban schools which were 38.8% of the total sample size and there were 71 rural schools which were 61.2% of the total sample size.

Social Mobilizers

Table 4.17

Qualification of Social Mobilizers

Qualification	Frequency	Percent
Master	47	73.4
M.Phil	17	26.6
Total	64	100.0

Table 5 is indicating the qualification of social mobilizers. Findings indicated that 47 social mobilizers had Master level qualification, which was 73.4% of total sample size. 17 social mobilizers had M.Phil. level qualification which was 26.6% of total sample size. Findings indicated that the majority of the social mobilizers had Master level qualification.

Table 4.18*Number of trainings attended by Social Mobilizers*

Number of Trainings	Frequency	Percent
.00	25	39.1
2.00	1	1.6
3.00	3	4.7
4.00	4	6.3
5.00	6	9.4
6.00	4	6.3
7.00	3	4.7
8.00	4	6.3
9.00	2	3.1
10.00	1	1.6
11.00	1	1.6
14.00	2	3.1
15.00	1	1.6
16.00	1	1.6
17.00	1	1.6
18.00	1	1.6
19.00	1	1.6
20.00	3	4.7
Total	64	100.0

Table 6 indicates the number of trainings attended by the social mobilizers. The findings indicated that the 25 social mobilizers had attended no trainings which was 39.1% of total sample size. 1 social mobilizer attended 2 trainings which was 1.6% of total sample size. 3 social mobilizers attended 3 trainings which was 4.7% of total sample size. 4 social mobilizers attended 4 trainings which was 6.3% of total sample size. 6 social mobilizers attended 5 trainings which was 9.4% of total sample size. 4 social mobilizers attended 6 trainings which was 6.3% of total sample size. 3 social mobilizers attended 7 trainings which was 4.7% of total sample size. 4 social mobilizers attended 8 trainings which was 6.3% of total sample size. 2 social mobilizers attended 9 trainings which was 3.1% of total sample size. 1 social mobilizer attended 10 trainings which was 1.6% of total sample size. 1 social mobilizer attended 11 trainings which was 1.6% of total sample size. 2 social mobilizers attended 14 trainings which was 3.1% of total sample size. Similarly, 1 attended the 15 trainings, 1 attended the 16 trainings, 1 attended the 17 trainings, 1 attended the 18 trainings and 1 attended the 19 training, all these are 1.6% of total sample size and its total was 8% of total sample size. 3 social mobilizers attended the 20 trainings which was 4.7% of total sample size.

Table 4.19*Number of schools allocated to Social Mobilizers*

Number of Schools	Frequency	Percent
85.00	19	29.7
90.00	7	10.9
119.00	17	26.6
122.00	1	1.6
140.00	20	31.3
Total	64	100.0

Table 7 indicates the number of schools allocated to social mobilizers. Findings indicated that 85 schools were allocated to 19 social mobilizers which were 29.7% of total sample size. 90 schools were allocated to 7 social mobilizers which were 10.9% of total sample size, 119 schools were allocated to 17 social mobilizers which were 26.6% of total sample size. 122 schools were allocated to 1 social mobilizer which was 1.6% of total sample size and 140 schools were allocated to 20 social mobilizers which were 31.3% of total sample size.

Table 4.20*Number of Rural Schools Allocated to Social Mobilizers*

Number of Schools	Frequency	Percent
10.00	24	37.5
12.00	1	1.6
15.00	19	29.7
20.00	20	31.3
Total	64	100.0

Table 8 indicates the number of rural schools allocated to social mobilizers. Findings indicated that 24 social mobilizers were allocated 10 rural schools which were 37.5% of total sample size. 1 social mobilizer was allocated 12 rural schools which was 1.6% of total sample size. 19 social mobilizers were allocated 15 rural schools which were 29.7% of total sample size. 20 social mobilizers were allocated 20 rural schools which were 31.3% of total sample size.

Table 4.21*Number of Urban Schools Allocated to Social Mobilizers*

Number of Schools	Frequency	Percent
70.00	19	29.7
80.00	7	10.9
110.00	1	1.6
111.00	17	26.6
120.00	20	31.3
Total	64	100.0

Table 9 indicating the number of urban schools allocated to social mobilizers. Findings indicated that 19 social mobilizers were allocated 70 urban schools which were 29.7% of total sample size. 7 social mobilizers were allocated 80 urban schools which were 10.9% of total sample size. 1 social mobilizer was allocated 110 urban schools which was 1.6% of total sample size. 17 social mobilizers were allocated 111 urban schools which were 26.6% of total sample size and 20 social mobilizers were allocated 120 urban schools, which were 31.3% of total sample size.

Table 4.22*Current Enrollment in schools allocated to social mobilizers*

Enrolment	Frequency	Percent
1500.00	19	29.7
1800.00	7	10.9
2000.00	1	1.6
2500.00	20	31.3
3480.00	17	26.6
Total	64	100.0

Table 10 indicates the number of male students enrolled in schools allocated to social mobilizers. Findings indicated that 19 social mobilizers had 1500 male students enrolled in their allocated schools, which were 29.7% of total sample size. 7 social mobilizers had 1800 male students enrolled in their allocated schools which were 10.9% of total sample size. One social mobilizer had 2000 male students enrolled in his allocated schools which were 1.6% of total sample size. 20 social mobilizers had 2500 male students in their allocated schools which were 31.3% of total sample size and 17 social mobilizers had 3480 male students enrolled in their allocated schools which were 26.6% of total sample size.

District Education Officers (DEOs)

Table 4.23

Gender of DEOs

Gender	Frequency	Percent
Male	4	80.0
Female	1	20.0
Total	5	100.0

Table 11 indicates the gender of DEOs, there were 4 male DEOs which were 80% of total sample size and 1 female DEO which was 20% of the total sample size.

Table 4.24

Number of Social Mobilizing Trainings Attended by DEOs

Number of Trainings	Frequency	Percent
.00	2	40.0
4.00	1	20.0
6.00	1	20.0
8.00	1	20.0
Total	5	100.0

Table 12 represents the number of trainings attended by DEOs. Findings indicated that 2 social mobilizers did not attend any training which was 40% of total sample size. 1 DEO attended 4 trainings which was 20% of total sample size. 1 DEO attended 6 trainings which was 20% of total sample size and 1 DEO attended 8 trainings which was 20% of total sample size.

Table 4.25

Current Enrollment of Students in Concerned District

Enrolled students overall	Male (%)	Female %
Up to 10000	0	0
10001-12000	1 (20.0)	0
12001-14000	3 (60.0)	3 (60.0)
Above 14000	1 (20.0)	2 (40.0)

The majority of enrolled students are in the 12001-14000 range (3 male, 3 female). A significant number are also in the 10001-12000 range (1 male, 0 female) and above 14000 range (1 male, 2 female). The enrollment distribution is fairly balanced between the different size ranges.

Table 4.26*Target of Schools in Districts of Each DEO*

Target Schools	Male	Frequency (male)	Percent	Frequency (female)	Percent
Up to 200	3	60.0	0	0	0
201-400	1	20.0	0	0	0
401-600	1	20.0	1	20.0	
601-800	0	0	3	60.0	
Above 1000	0	0	1	20.0	

According to the findings of the table 14, target School in the Concerned District: The majority of target schools have between 201-400 (1 male, 0 female) and 401-600 (1 male, 1 female) enrolled students. There are also a significant number of target schools with above 1000 enrolled students (1 female). The enrollment distribution is skewed towards the lower end, with more schools in the smaller size ranges (up to 200, 201-400, 401-600) compared to the larger size ranges (601-800, 801-1000, above 1000).

Table 4.27*Number of Projects Undergoing in Districts of each DEO*

Number of Projects	Frequency	Percent
3.00	1	20.0
4.00	2	40.0
5.00	2	40.0
Total	5	100.0

Table 15 representing the number of projects undergoing in districts of each DEO. Findings indicated that 1 DEO had 3 projects undergoing in his/her district which was 20% of total sample size. 2 DEOs had 4 projects undergoing in their districts which were 60% of total sample size. 2 DEOs had 5 projects undergoing in their districts which were 40% of total sample size.

Table 4.28*Number of Field Staff each DEO had.*

Number of Field Staff	Frequency	Percent
12.00	1	20.0
13.00	1	20.0
15.00	2	40.0
18.00	1	20.0
Total	5	100.0

Table 16 representing the number of field staff each DEO had. Findings indicated that 1 DEO had 12 people as field staff in his/her district which was 20% of total sample size. 1 DEO had 13 people as field staff in his/her district which was 20% of total sample size. 2 DEOs had 15 people as field staff in their districts which were 40% of their total sample size. 1 DEO had 18 people as field staff in his/her district which was 20% of total sample size.

Table 4.29

Number of Office Staff Each DEO had in His/her Office

Number of Field Staff	Frequency	Percent
3.00	1	20.0
5.00	1	20.0
10.00	1	20.0
13.00	1	20.0
18.00	1	20.0
Total	5	100.0

Table 17 representing the number of office staff each DEO had in his/her office. Findings indicated that 1 DEO had 3 people as office staff in his/her office which was 20% percent of total sample size. 1 DEO had 5 people as office staff in his/her office which was 20% of total sample size. 1 DEO had 10 people as office staff in his/her office which was 20% of total sample size. 1 DEO had 13 people as office staff in his/her office. 1 DEO had 18 people as office staff in his/her office which was 20% of total sample size.

Table 4.30

Enrolled Students from 2019-2023 in District of Each DEO

Year	Up to 5000		5001-10000		10001-15000		Above 15000	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
2019	1 (20.0)	0	4 (80.0)	5 (100)	0	0 (0.0)	0 (0.0)	0 (0.0)
2020	1 (20.0)	0	4 (80.0)	5 (100)	0	0 (0.0)	0 (0.0)	0 (0.0)
2021	0 (0.0)	0	5 (100.0)	5 (100)	0	0 (0.0)	0 (0.0)	0 (0.0)
2022	0 (0.0)	0	2 (40.0)	2 (40.0)	2 (40.0)	1 (20.0)	1 (20.0)	2 (40.0)
2023	0 (0.0)	0	1 (20.0)	1 (20.0)	3 (60.0)	2 (40.0)	1 (20.0)	2 (40.0)

In 2019 and 2020, the majority of enrolled students were in the 5001-10000 range (4 males, 5 female). In 2021, all enrolled students were in the 5001-10000 range (5 males, 5 female). In 2022 and 2023, the distribution shifted, with more students in the 10001-15000 range (2 males, 1 female in 2022; 3 males, 2 females in 2023) and above 15000 range (1 male, 2 females in 2022; 1 male, 2 females in 2023). The overall trend shows an increase in the number of enrolled students over the 2019-2023 years.

Table 4.31*Dropout of Students in years 2019-2023*

Year	Up to 200		201-400		401-600		601-800		801-1000		Above 1000	
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
2019	2 (40)	1 (20.0)	1 (20)	0 (0.0)	0 (0.0)	2 (40.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40)	2 (40.0)
2020	2 (40)	1 (20.0)	1 (20)	1 (20.0)	0 (0.0)	1 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40)	2 (40.0)
2021	2 (40)	2 (40.0)	1 (20)	1 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40)	2 (40.0)
2022	2 (40)	2 (40.0)	0 (0.0)	0 (0.0)	1 (20.0)	1 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40)	2 (40.0)
2023	1 (20)	2 (40.0)	1 (20)	0 (0.0)	1 (20.0)	1 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40)	2 (40.0)

The majority of dropout students are in the up to 200 ranges (2 males, 1-2 female) and above 1000 range (2 male, 2 female). There are also significant numbers in the 201-400 range (1 male, 0-1 female) and 401-600 range (0-1 male, 1-2 female). The dropout rates have remained relatively stable over the 2019-2023 years, with some minor fluctuations in the various size ranges.

Table 4.32*Streamlined of Students in years 2019-2023*

Year	Up to 200		201-400		401-600		601-800		801-1000		Above 1000		
	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	
2019	2 (40.0)	1 (20)		1 (20)	1 (20)	0 (0.0)	1 (20)	0 (0)	0 (0)	2 (40)	1 (20)	0 (0.0)	0 (0.0)
2020	2 (40.0)	1 (20)		0 (0)	0 (0.0)	1 (20)	2 (40)	0 (0)	0 (0)	1 (20)	2 (40)	0 (0.0)	0 (0.0)
2021	1 (20.0)	0 (0.0)		2 (40)	1 (20)	0 (0.0)	2 (40)	0 (0)	0 (0)	2 (40)	2 (40)	0 (0.0)	0 (0.0)
2022	2 (40.0)	1 (20)		0 (0.0)	0 (0.0)	1 (20)	2 (40)	0 (0)	0 (0)	1 (20)	1 (20)	1 (20)	1 (20)
2023	2 (40.0)	0 (0.0)		0 (0.0)	1 (20)	1 (20)	1 (20)	0 (0)	1 (20)	0 (0.0)	0 (0.0)	2 (40)	2 (40)

The distribution of streamlined students is more evenly spread across the different size ranges, with significant numbers in the up to 200 (2 males, 0-1 female), 201-400 (0-2 male, 0-1 female), 401-600 (0-1 male, 1-2 female), and 801-1000 (1-2 male, 1-2 female) ranges. There is also a notable number of streamlined students in the above 1000 range (2 males, 2 female) in 2023. The distribution of streamlined students has remained fairly consistent over the 2019-2023 years, with some minor fluctuations in the various size ranges.

Overall, the data suggests that the target schools in the concerned district serve a diverse population, with a mix of smaller and larger institutions. The enrollment trends show a gradual increase in the number of students, while the dropout and streamlined student data indicate some areas for further investigation and potential improvement.