Journal of Innovations in Education and Social Sciences
Leruse Newsy Associates
Volume 2. Issue 1 https://jiess.org.uk/index.php/jiess ISSN:3006-6603

Effect of Vocational Content Integration on Developing Students' Interest towards Schooling in Non-Formal Education

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Abstract

Vocationally integrated content meets job market demands and prepares students for successful careers. It engages students, inculcates practical skills, and promotes social and economic development. This study aims to determine the effect of vocational content integration on developing students' interest towards schooling in Non-Formal Education. It was a quantitative study based on three phases: determining need analysis, integration of vocational skills and intervention in the classroom. The population of the study comprised non-formal schools running under JICA, NCHD and AIOU in the slum areas of Islamabad. The cluster sampling was made for determining need analysis. A self-developed questionnaire was employed to conduct survey from 295 adult learners studying in the non-formal schools to determine their needs. They most demanded skills from distance learners were stitching, beautician and computer skills. The desired skills were integrated in the academic courses i.e. Arithmetic, English and Urdu being taught in the non-formal schools. In the second phase, 30 lesson plans were developed following integrated curriculum aligned with the revised vocational courses with the help of subject experts. At Phase three, a non-formal school from NCHD was conveniently engaged to teach integrated curriculum. The teacher taught 30 lessons following lesson plans devised in the light of revised curriculum. The evidence of change in attitude, regularity and interest towards schooling was measured through rating scales before and after intervention (pre-test and post-test format). The effect of integrated curriculum evidently visible in adult learners' attitude and motivation towards schooling. They were active and fully engaged in the classroom, which showed their motivation. Findings showed adult learners increased interest in acquiring skills, leading to higher engagement and helpful in earning their daily life needs. However, based on empirical evidence of this study skill based integrated curriculum approaches are recommended which enhance students' interest and motivation towards schooling.

Keywords: Integrated curriculum, Vocational skills, Non-Formal Education & Interest and motivation

Introduction

Pakistan is a developing country with the largest number of young populations (63%), within age group of 20-25 years (UNESCO,2023). According to the 1973 Constitution, Article 25(A) of Pakistan, free and compulsory education is the right of every child, and the state is responsible for providing free education to each child at his doorstep. As per UNESCO Institute of Statistics Pakistan is 5th most populated country in the world, ranked 152 among 159 countries in (Education for All)

Development Index, lowest literacy rate among South Asian countries (Human Rights Watch, 2018). Being a developing country, low enrollment and high dropout rates are the most challenging issues of education in Pakistan (NIPE, 2015). The observed dropout rate at the primary level is 33% (Legislature of Pakistan, 2017.According to forecasts from the Public Organization of Populace Studies there are 28.8 million children attending public or private schools, while 22.8 million children between the ages of 5 and 16 are not attending school. Among those not attending school, 5.06 million are children illiterate between the ages of 5 and 9 years old. (NIPS, 2015)

Literacy rate of Pakistan was dropped from 60% to 58% (UNESCO, 2017). The dropout rate at the primary level is high, especially in rural areas (UNESCO, 2023). In Pakistan, there is a substantial gender disparity in education. It is a patriarchal society in which women face a wide range of discrimination, leading to a low social, economic, and political status. According to the Pakistan Demographic and Health Survey 2017. The literacy rate for women aged 15-49 is 43% compared to 69% of men. There is a lack of support for girls' education in conservative families, which is often the outcome of long-standing customs imposed by parents. Although hurdles to education exist for both genders, the effects are more severe for girls (Martin, 2022). Moreover, it exceeds for females especially in rural areas due to, illiterate parents and male dominant societies. Along with other reasons of illiteracy there are also some contributing factors such as increase in population, lack of interest of learners in literacy practices and huge dropout rate (UNESCO, 2022).

There are several reasons for the dropout and low literacy rate like large classes, poverty, stuffed classrooms, bodily penalties, uneducated families, a deficiency of curiosity in learning as pupils, the little excellence of the mentor, and the harsh actions of the instructor with students (Jafar, S. et al. 2021). One element that contributes to this problem is the fact that a significant number of students fail to recognize the practical relevance of what they learn in instructional settings. One possible explanation is that they believe that if they were to get a job or acquire a trade, they would be able to provide for their families and earn a living (Rehman, 2020).

Literature suggests some possible solutions to address the lack of interest of the students in studies like schools with a smaller class size, stronger relationships between students and teachers, and a focused, rigorous, and relevant curriculum are better as intervention measures (Balfanz et al .2020). "Relevant curriculum" may have one meaning: "job oriented." Job-training programmes implied that anyone with skills could get a job. As a result, including some livelihood skills in the curriculum can lead to employment (Mayombe, 2018). Therefore, it is critical to offer kids educational opportunities that incorporate occupational content into their curriculum. Several nations (UK, Australia, Finland, New Zealand) have advocated for the incorporation of certain occupational skills within the curriculum. The literature highlighted that the content embedded with

vocational skills may be included in proposed curriculum (Heuer & Pilz, 2022). Academic education generally leads to better earnings, vocational education programs can also be beneficial, especially for those with lower academic achievement (Dearden et al. ,2020). However United Kingdom discover that academic education produces greater returns, but most vocational education programs result in handsome incomes compared to having no vocational certification, especially for low-achieving school dropouts. In another study (Bibby et al. 2015) assessed the returns to various courses using matched administrative data and discovered that workplace-level vocational educational training delivers greater returns than classroom-level vocational educational training. Workplace based vocational training tends to yield higher returns than classroom-based vocational training.

The Australian government has prioritized a stand on adult and community education policy and emphasized the significance of adults continuously updating their skills and knowledge to meet the shifting needs of the workplace (Malloch, 2021). According to the report Future of Adult Community Education in Victoria 2020-2025, the education and training minister needs to emphasize on the three sectors of adult literacy areas: engaging adult learners and helping them develop basic skills; establishing standards for adult literacy, numeracy, employability, and digital skills education; and helping workers who are at risk of losing their jobs by acquiring these vocational skills (Devlin, 2020). In Finland, students complete 10 years of compulsory education before choosing between vocational education and training (VET) or general upper secondary education. Finland's school system combines practical training with academic training so that students can go over in both paths at the same time. This way of doing things has many benefits, such as more freedom, better job opportunities, and an easier move from school to work (Seitamaa & Hakokõngäs, 2022).

A study conducted at a vocational distance education provider in New Zealand revealed a rise in course completion rates, reaching levels comparable to those of traditional face-to-face institutions. The researchers (Yates, Brindley-Richards, & Thistoll 2020), suggest that this improvement stems from a combination of engaging vocational content and active involvement of students and teachers. Their findings indicate that enhanced vocational components in courses can increase student interest and contribute to greater job security in the future. The positive influence of vocational education on student engagement and career prospects is clearly demonstrated in this research. It aims to develop all round capacities of the learner through an integrated education. In India (National Education Policy- 2020 -2025) as a very impressive forthcoming policy as it has brought vocational Education to the mainstream of Education. It stated that there would be no hard separation between the vocational and academic streams. School students will have 10 bag-less days in a year, during that period they will be exposed to the vocation of choice (Toppo, 2023).

Schools are expected to produce individuals who are prepared to enter the workforce towards post-secondary education. To achieve quality, employable skills, students need to have acquired academic as well as career and technical training before leaving high school. The students who participate in Career and Technology Education (CTE) courses are less likely to drop out of high school as compared to students who do not participate in CTE courses (Ritter, 2014). This finding from another study suggests that a middle-range mix of exposure to CTE and an academic curriculum can strengthen a student's attachment to or motivation while in school (Michaels et al., 2019).

An important finding of the Math-in-CTE study, which was confirmed by the Literacy-in-CTE and Science-in-CTE studies, is that comprehensive and extensive professional development plays a crucial role in influencing teaching practices and fostering partnerships that result in the emergence of communities of practice (Crevar, 2023) to the fact that integration methods are typically not covered in teacher preparation programs for CTE, and because many CTE such teachers do not have traditional certification, they require sufficient time to acquire knowledge of integration methods and develop confidence in teaching the academic content that is incorporated into their curricula.

The ability of a person to solve daily life problems and use of vocational skills in academic and professional environments will help them to respond to the changing global issues (Friedman, et.al, 2023). The purpose of incorporating knowledge from other vocational fields is to create an atmosphere in the classroom in which students are not merely interested viewers of the learning process but rather engaged participants (Wolf, et.al, 2021). The inclusion of real-world applications of concepts covered in class is one strategy that educators use in the hopes of motivating students to take ownership of their own educational experiences.

Engaging in proactive engagement can foster a more favorable outlook towards education among students, shifting their perception from perceiving it as an ordinary assignment to viewing it as a chance for personal advancement and professional development. Essentially, it can assist students in perceiving school as less of a burden and more as a chance to select a vocation (Malkus, 2019). Therefore, by integrating vocational education into the curriculum, students can transform their perception of school from a mere obligation into a transformative pathway towards personal growth and career fulfillment (Mordhorst & Jenert, 2023).

Integrating vocational education (VE) with academic/general education not only provides learners with the necessary transferable skills that learner wants but it also provides a mechanism for engaging those who have not been interested in academic learning (Asakaviciute, 2022). Therefore, this study was planned to see the effect of integration of vocational content related to students' interest and see their motivation towards schooling. The following objectives were devised to conduct this study.

- Finding the need of vocational education at non-formal education centers.
- Determining the effect of vocationally integrated content on developing students' interest towards schooling.
- Measuring the effect of vocationally integrated curriculum on students' participation in NFE centers.

There are some research questions and hypotheses devised blow to seek answer for the above mentioned objectives:

1.1 What is the level of curiosity for the integration of vocational content in the curriculum of NFEs programs?

1.2 What is the level sensitization of NFEs students towards learning vocationally integrated content?

1.3 What vocational courses are most demanded from the students of Non-Formal Educational Centre (NFEs)?

2.1 H_0 = There is no significant effect of vocationally integrated content on students' level of Attention.

2.2 H_0 = There is no effect of vocationally integrated content on students' level of Motivation.

2.3 H_0 = There is no effect of vocationally integrated content on students' level of curiosity.

2.4 H_0 = There is no effect of vocationally integrated content on students' level of Attraction.

2.5 H_0 = There is no effect of vocationally integrated content on students' way of teaching.

3.1 H_0 = There is no effect of vocationally integrated content on students' regularity at NFEs.

3.2 H_0 = There is no effect of vocationally integrated content on students' participation in the tasks at NFEs.

3.3 H_0 = There is no effect of vocationally integrated content on students' time duration at NFEs.

Research Methodology

This study is quantitative in nature and situated within the positivist paradigm offers a strong foundation for experimental research, particularly when seeking to establish cause-and-effect relationships through objective and controlled methods. (Wallen & Fraenkel, 2013)

This study was carried out in three phases:

1. Need analysis
2. Development of Scheme of studies
3. Intervention of integrated vocational courses

Context of the Study

Adult education programs play a crucial role in empowering individuals to continue learning throughout their lives. However, traditional curriculum in non-formal settings might not fully address the needs of learners, particularly those in under-served communities. AIOU, JICA and NCHD are the organizations working in these areas to educate the adults who left their formal education by providing them another chance to complete their primary level education. Most of the people living in these slums areas of Islamabad are migrated from the different parts of the country and refuges of Afghanistan. They are from different tribes, socio economic background. This study investigates the impact of integrating vocational skills into the curriculum for adult learners enrolled in continuing education programs offered in slum areas of Islamabad, Pakistan. By understanding how such integration affects learners' attitudes towards schooling, this research aims to contribute to developing more

effective educational strategies for this population."

Research Design

The research overall study was quantitative. In the first phase, descriptive research was used for need analysis. For the last and third phase, an experimental design was used. To find out the comparison there are different designs of experimental research. The most suitable experimental design for the above study is one group pretest-posttest design as the research is based on a single experimental group. So the pre-test and post-test were given to the same single group. A pre-opinion before piloting the embedded courses was administered for assessing the knowledge about the course work. And post opinion was administered after teaching the embedded content.

Phase I: Need Analysis

In the first phase a need analysis was conducted to find the students' attitude towards course content, vocational education and to finalize the top demanded vocational skill. A self-made questionnaire was used for identifying the need of the learners. This data collected from the sample based on the enrolled students of the Islamabad slum area at non –formal centers of AIOU, JICA & NCHD from the primary level.

Phase II: Development of Scheme of studies

After analyzing the survey data the most demanded vocational skill which was determined by the highest percentage and rank through a statistical analysis was embedded in the course contents of continued semester courses of primary level. In each semester three academic courses were offered, so 10 (Student Learning Outcomes) SLOs of all courses of level (class) "4" were embedded with one vocational course. A detailed embedded scheme of the study was developed with the help of course coordinators of these courses and curriculum experts. By using this scheme of study researcher developed a module of embedded units based on 10 lesson plans of each subject English, Urdu, and Math.

Phase III: Intervention of integrated vocational courses

This phase comprised on a single-group pretest-posttest design of experimental research. the single-group pre-test post-test design has establishing causality due to the lack of a control group (Bloomfield & Fisher 2019). In this phase, an experiment was conducted for one month based on (30 sessions) in one conveniently selected non-formal primary level center of (Dhoke Paracha) district Islamabad (Slums area). The center was purposefully selected. Thirty-two students' experimental group was purposely selected for intervention. Students were taught thirty days ten days for each subject. During the intervention, students were taught with the integrated syllabus of Math, Urdu and English embedded with stitching, beautician, and computer course. Ten lessons on each subject were taught one lesson per day. After the intervention students' attitude towards schooling was measured through a self-developed student's interest scale based on the items of their attitude, regularity, and interest before and after the intervention, scores of thirty-two enrolled students before and after the intervention were compared

and analyzed at the end of the study. This design was used as the group was selected as it is without randomization and the concept of integrated vocational content was not in practice in any other non-formal educational center.

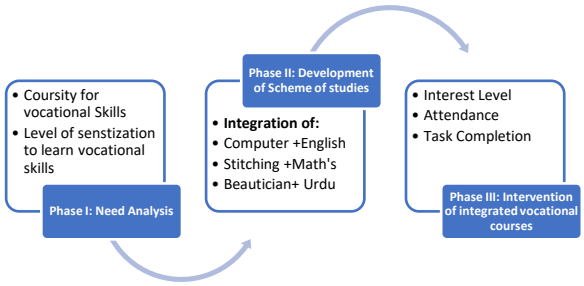


Figure: Procedure of the study

Population and Sample

The study focused on adult learners enrolled in continuing education programs for primary and middle levels offered at non-formal centers in slum areas of Islamabad. These centers are operated by three organizations: Allama Iqbal Open University (AIOU), Japan International Cooperation Agency (JICA), and the National Commission for Human Development (NCHD). The target of these continuing education programs was to develop educational experiences of adult learners to continue their education outside the formal school system and mainstreaming for further schooling in the formal set up. The population of the study was comprised of all adult learners enrolled in such non-formal centers in Islamabad Capital Territory (ICT).

The sampling technique to conduct this research was based on cluster sampling as the intact centers were considered as clusters (adult learners of heterogeneous backgrounds) which is a suitable technique (Fowler, 2014). A cluster sampling is "a probability sampling technique in which the population is first divided into sub-populations or clusters, and then a cluster is selected through a random sampling. As the educational programs offered by AIOU, JICA, and NCHD are not evenly distributed across these areas, then slum areas are considered as clusters which could lead to a sample that accurately represent the entire population of non-formal continuing education programs.

Table 1

Detail of the population and sample

Organization	Population NFEs/Students	Sample	Technique
JICA	250	100	Cluster Random Sampling
AIOU	141	120	
NCHD	154	75	
Total	555	295	

Instruments of the study

The study was planned to determine the need of adult learners for non-formal education. However, to identify their interests, curiosity and sensitization we devised a questionnaire. The content was vocationally integrated as per the need of the non-formal learners. Finally, to gauge the change in interest of these learners towards schooling after studying skill-based content.

1. Questionnaire for need analysis.
2. Integration of vocational skills
3. Student's interest scale towards schooling

Reliability and Validity of the Instruments

There were three instruments used for this study: one instrument for each phase of

the study. Detail is given in the following paragraphs.

For the phase I, a questionnaire was developed to assess students need and interest in vocational skills and skill integration into existing courses. The questionnaire had 25 items initially which remained 23 after expert review. Then questionnaire was pilot tested on two non-formal clusters having 55 students and Cronbach alpha value was 0.77 which is (Nunnally, 1978).

At phase II, top three areas identified through need analysis which were stitching, beautician, and computer. The skills of all three areas were identified and incorporated into three content courses Math, Urdu, and computer. The scheme of study was created to ensure subject alignment. This scheme of study was used as a roadmap to develop lesson plans accordingly for the development of thirty lessons. Initially 10 topics from each subject were selected to be integrated with vocational skills. The pattern of scheme of study and lesson plans were approved by six specialists in skill courses, including course coordinators from JICA, AIOU, and NCHD. The module of integrated course content, consisting of thirty detailed lesson plans, was revised to include all the feedback and ideas provided by them.

For the last phase, the student interest scale was developed to measure student interest before and after studying the integrated courses. This scale also used a 5-point Likert scale and contained 25 items initially. In the light of reviewers' comments 4 items were removed and some revisions were made accordingly. Finally, the interest scale was based on 21 items pilot tested and found Cronbach value of 0.63.

Integration of Vocational Skills

With the support of experts developed a scheme of study for planning 30-lesson for non-formal primary education. They identified student learning objectives (SLOs) in Math's, English, and Urdu at the level 4 that might be combined with practical skills. They created an integrated content with a thorough study plan by matching these academic SLOs with vocational course SLOs mentioned in a table below. Every academic topic was matched with an appropriate vocational course (for example, Math's with sewing and English with computers Urdu with Beautician) these skills were identified from the survey initially done in the first phase of the study. Academic courses were integrated with skill content to meet the selected SLOs. A thorough content with ten lesson plans for every subject was created in order to meet both academic and professional objectives.

The main purpose behind the development of this scheme of study was to achieve academic objectives by teaching skill course. Students not only improved their learning goals but also able to learn skills with the use of integrated course content. Detailed integrated scheme of study is given below.

Table:2

Revised SOS of subject "English" with integration of Vocational Skills (Computer.

S.	*Topics of Textbook*	*Learning Out Come*	*Integration of Vocational Skills*	*Assessment*
1	History and Development of Computer	Read aloud for correct reproduction of sounds of words and sentences	Use of MS Words for Typing	Verbal Test and Written Test on PC
2	Microcomputer	Locate specific information, infer particular meaning and guess specific theme in a text.	Drawing a Table Writing Word Meanings on Laptop or PC	Words meaning
3	Mainframe	Express simple feeling and ideas	Use of Keyboard	Self-writing
4	Hand-held computer	Use simple describing words (adjectives)	Making Table on Pc	MCQs
5	Keyboard Device	Use question words in writing such as what, who, when, which, where and why	Word making and saving	Short Question/Answers
6	Point and Draw Devices,	Illustrate use express permission, prohibition, doubt and obligation	MS File saving and Lebling name	Self-writing
7	Hardwares	Identify and write sentences that state/ negate something, or ask a question	Input and Output Devices Pictures pasting in MS word file	Simple sentences
8	MS Word	Articulate and use forms of some simple regular and irregular	Typing of sentence as use of Bullets.	Correct sentences
9	MS Excel	Request and respond to requests	Fiel making and saving in Excel	Match column
10	Power point	Illustrate use of was, were	Make slides on past tense.	Word, Sentences

Table 2 shows most demanded computer course content vocational skill were aligned to the subject of English. Ten topics were selected initially relevant with basic computer skills and they were linked with ten common learning outcomes of English course book. The focus of these learning outcomes was to teach the students words meaning, use of adjectives, and write simple sentences to share feelings. To achieve these learning outcomes content was selected based on basic computer skills like, history of the computer, types of computers etc. Activities were designed to assess the desired skills. Detailed lesson plans on all the topics were developed.

Table:3

Revised SOS of subject 'Math' with integration of Vocational Skills (Stitching)

S#	***Topics***	***Learning Out Comes***	***Integration of Vocational Skills***	***Assessment***
1	Various types of cloth	Solved questions in daily life related with Pakistani Currency	Distribute 5 meter cloth in 10 students)	Question related Km
2	Selection of Cloth	Find out price of one unit	Buying cloths	Short Questions & Answers
3	Measurement of cloth	Find out the length of different things in proper units.	Measurement of swing machine parts	Fill in the blanks
4	Draw Pattern of shirt on paper	Conversion of Kilo meter in meters, meters in centimeter and centimeters in millimeters	Pattern making and labeling	Multiple Choice Question
5	Basic pattern adjustment	In daily life convert length in different units and add subtract these units	Cloths cutting and measurement	Questions & Answers
6	Fitting of pattern	Draw a line by using a ruler	Pattern of trouser and measure the lines	Fill in the blanks
7	Pattern of neck, sleeves and fitting of shirt	Identify parallel and non-parallel lines.	Pattern of sleeves and fitting of the shirt	Tick/cross
8	Pattern of trouser	Draw an angle and measure it	Pattern of trouser and measure all the angles	MCQs
9	Length, Center front/back	Define proportion from daily life example	Measure the cloth used for 5 suits	Questions & Answers
10	Waist	Conversion of hours into minutes, minutes into seconds.	Time used in cutting and stitching of trouser	Questions & Answers

Table 3 shows revised scheme of study after integrating vocational skill stitching with academic course Math. Ten topics were selected by skill course and aligned with the objectives from academic course. In these topics the concept of line, parallel lines and angle were selected by academic course content. For teaching these concepts a pattern of trouser and shirt on which students learned to draw line measurement of the lines and different shapes like square. Triangle and rectangle. A detailed lesson plans were developed on each topic.

Table:4

Revised SOS of subject Urdu with integration of Vocational Skills(Beautician)

S#	*Topics*	*Learning Out Comes*	*Integration of Vocation*	*Assessment*
1	Washing and Cleaning of Face	Read and write sentences by using proper punctuations.	Cleansing	Match column
2	Hair Washing Techniques	Convert present tense in past tense.	Hair washing and cutting	Tick /cross
3	Hygienic ways of keeping clean	Collect relevant information by conversation of any topic or after reading some text	Daily routine od skin care	Self writing
4	Study of Different Kinds of Skin (Dry, Oily, Acne, Problem skin)	After reading the paragraph conclude the theme of the paragraph in your own wards.	Remedies sharing for different skin types	Paragraph Writing
5	Masks Used for Different Types of Skin	Understand and identify Noun and its types.	Name of facial kit items	MCQs
6	Equipment required for facial.	Read your favorite story and write it in your words.	Herbal facial	Self-writing
7	Cleansing	Identify and understand quality of noun.	Cleansing process	Fill in the blanks
8	Bleaching	Understand and use verb, object and subject in simple sentences.	Things used in bleaching	Make sentences
9	Procedure of Applying Steam	Used proper tenses according the situation.	Steaming in facial	Question/answer
10	Removal of Black and White Heads along with effects and remedies	Understand main point after reading a text	Use different herbal remedies.	Make interrogative sentences

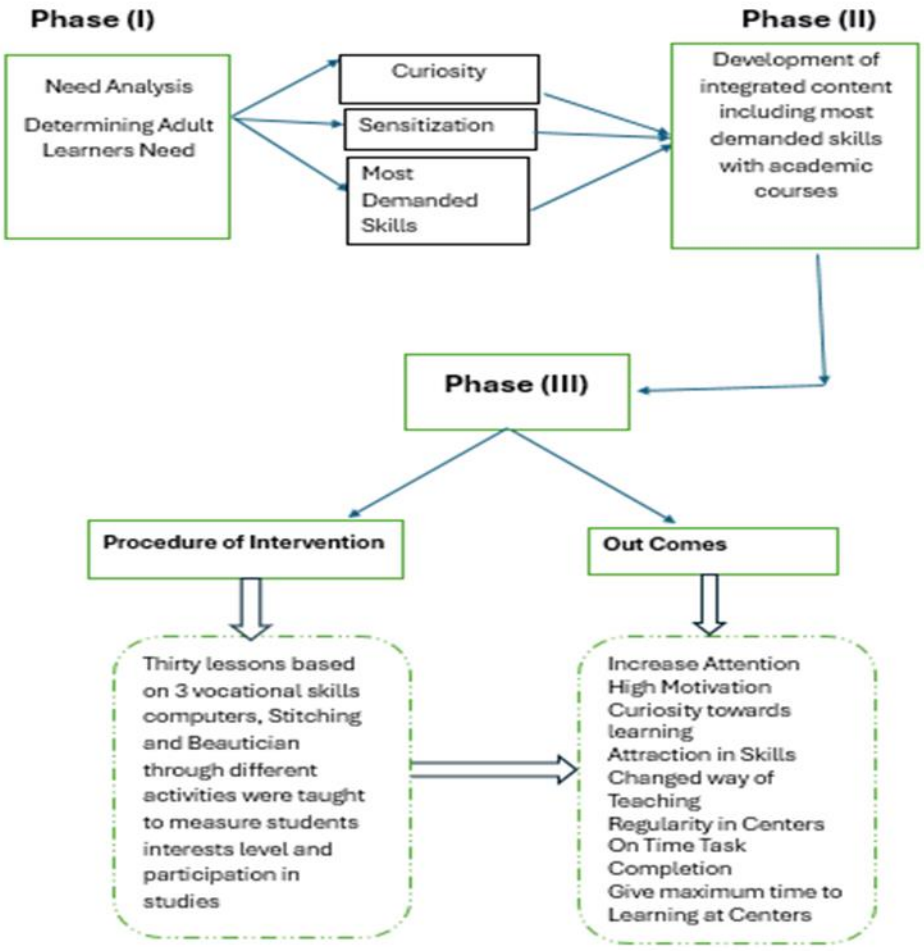
Table:4 scheme of study based on the integration of Urdu and Beautician course were developed. In above table three topics were selected from skill course and integrated with the learning outcomes of subject Urdu in which the major objectives were to make them able to read and write the sentences with proper punctuation according to the tense. Students can transform the information according to the situation. In integrated activities students

learned about the hair washing techniques and self-hygiene tips as well as the same learning outcomes which they have to learn from course book. A detailed lesson plans were developed on each topic.

Data Collection

Data was collected through a questionnaire and interest scale administered to the participants. Ethical guidelines were followed throughout the research process to protect participants' rights and confidentiality. Informed consent was obtained from all participants, and measures were taken to anonymize their responses in reporting findings. Participants were assured of their voluntary participation and the confidentiality of their data, and any potential risks to participants were identified and addressed.

Conceptual Framework of the study



Data Analysis

The collected data through a self-developed questionnaire for phase I was analyzed by maximum, minimum, means, percentages and ranked the items.

Analyzing the data for phase II, the scores of the group before and after intervention were compared. To find out the comparison paired sample t-test was applied because the data was normal. The data of the students' interest scale were analyzed through SPSS by using the following statistical procedure: percentage frequency, ranking, mean, standard deviation, DF, Mean difference, and t value.

Result and Interpretations

The study investigated how integrating vocational skills into existing courses impacted students' interest and motivation in non-formal educational centers.

Students showed a strong interest in vocational courses, with over 77% expressing interest in courses that integrate vocational skills. Stitching, beautician training, and computer courses were the most popular choices.

The findings demonstrate that integrating vocational skills into core subjects significantly improved student interest and motivation. Students reported increased enjoyment of lessons, a better understanding of the integrated content, and a greater desire to learn more skills and continue their studies. Overall, the study suggests that vocational skills integration is a promising strategy for enhancing student engagement and motivation in non-formal education settings. Detail of the data analysis is as under.

Table:5

Descriptive Statistics of Students Curiosity in Vocational Courses

Factors	Items	N	Mean	Minimum	Maximum
Curiosity	Curiosity in learning of vocational courses	295	4.2	4.10	228.48
	Need of vocational courses	295	4.4	4.40	241.01
	Integration of vocational education with academic education is more important	295	3.9	3.90	222.13
	Income increased by learning vocational education	295	4.50	4.50	226.85
	Learn vocational skills on regular bases	295	4.60	4.60	235.50
Sensitization	Preference on vocational education on academic	295	4.61	4.61	233.05
	Academic courses align with vocations is more interesting	295	4.53	4.53	218.89

Table 5 shows that students are curious about the learning of the vocational as 77.3% students interest level in the courses integrated with vocations are 82.4%. Need for the vocational courses in non-formal educational center was 81.7%. 75.3% students are interested in the study of integrate courses. Graphical presentation of this table can be seen below.

Table shows that students are ready and sensitize about the learning of the vocational courses as 76.9% students agreed that by

vocational education their income increased. 79.7% students' wants to learn skills on regular bases, 79% students' preferred vocational education on academic education. 74.2% students are interested in learning, so it is concluded that most of the students are sensitize and willing to learn skill based integrated courses.

Detail of Demanded Skills by the students enrolled in non-formal schools

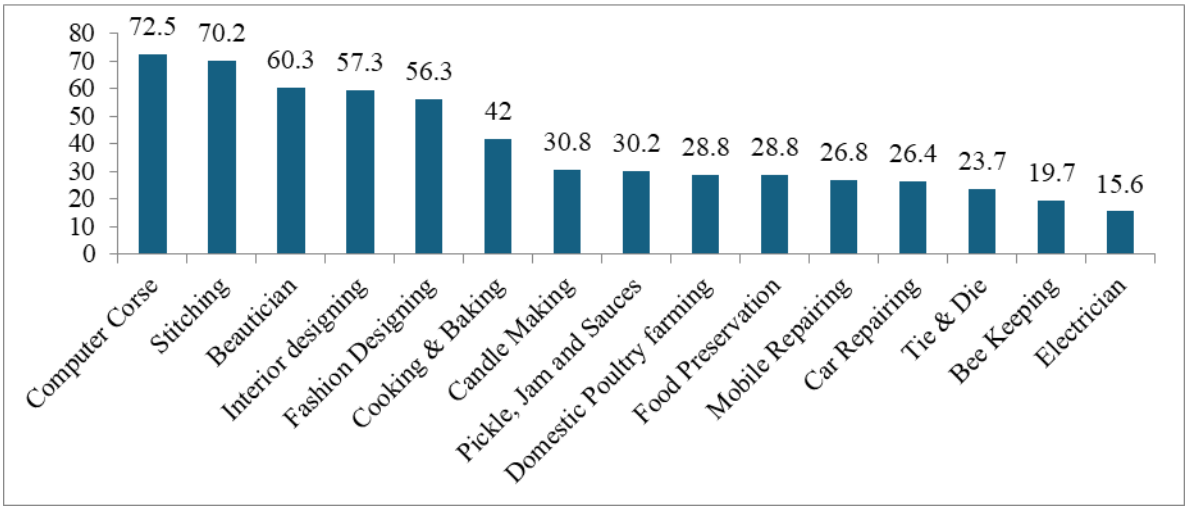


Figure 1: Graphical presentation of Descriptive Statistics of most Demanded Skills in Vocational Courses

Above figure presents the frequencies, percentages and ranking of the responses of the respondents when asked to identify a vocational training area in which they are interested in pursuing from a list of options provided. The youth chose computer course (72.5%) and Stitching (70.2%), followed by Beautician (60.3%), then interior designing (57.3%) Fashion Designing, Cooking, backing (42%) Candle Making (30.8%) Pickle, Jam and Sauces (30.2%), and domestic poultry farming, food preservation (28.8%). Other training needs options attracted percentages from 26% and below, indicating that they were not very popular among the youth. Graphical presentation of this table can be seen below.

To measure the effects of integrated sources and experiment was conducted and a self made interest scale was made to collect the data from students. Results of the data are as under:

Table: 6

Comparison of Pre and post Observations on Attitude of Students towards Integrated Curriculum

			N	Mean Differences Mean x1	Mean x2	*t*	df	*P*
Interest	Pair 1	Attention Pre – Attention Post	32	2.19	4.22	-8.63	31	.000
	Pair 2	Motivation Pre – Motivation Post	32	2.88	4.59	-11.33	31	.000
	Pair 3	Curiosity Pre – Curiosity Post	32	2.38	4.72	-11.82	31	.000
	Pair 4	Attraction Pre – Attraction Post	32	2.81	4.91	-14.33	31	.000
	Pair 5	Teaching Pre – Teaching Post	32	2.56	4.64	-4.29	31	.000

Table:6 revealed that there was a significant difference scores of pre and post interest as t(31)=-8.637, p<.01. So it is concluded by the results that students 'of adult literacy centers level of interest in studies and their motivational level towards schooling were increased by teaching of integrated courses.

Table:7

Paired t test of Pre and Post Comparison of Attitude of Students towards Integrated Curriculum

			N	Mean Differences Mean x1	Mean x2	*t*	df	*P*
Attendance	Pair 1	Regularity Pre – Regularity Post	32	2.75	4.84	17.88	31	.000
	Pair 2	Task Completion Pre post – Task Completion	32	2.75	3.06	1.04	31	.305
	Pair 3	Time Pre – Time Post	32	-3.75	4.22	3.30	31	.002

Table shows that there was a significant difference scores of pre and post Attendance as t(31)=-17.88, p<.01. So it is concluded by the results that students 'of adult literacy centers level of regularity, Task completion and time duration in studies and their interest level towards schooling were increased by teaching of integrated courses.

Discussion

This current study suggests that integrating skill-based courses with academic programs can significantly boost student interest, motivation, and overall engagement. Students who participated in these programs demonstrated increased enthusiasm for vocational skill activities, even arriving at skill centers before opening times to maximize their learning opportunities. The need analysis identified a strong student demand for practical skills training in areas such as tailoring, beautician, computer literacy, fashion design, and beekeeping. These findings align with previous research by (Ahmed & Aziz 2018), which concluded that vocational training integrated into educational programs improves students' regularity, interest and helps to close the skills gap.

This study's findings support the notion that integrating skill-based courses with traditional academic curricula can significantly enhance student engagement. Similar to (Langthaler, 2021) research, our results suggest that incorporating practical applications of concepts within academic courses can promote active learning and foster deeper student participation. Furthermore, the study aligns with (Barkley, Cross, & Major's 2014) work, demonstrating that activity-based education, particularly within skill-integrated courses, leads to higher student engagement compared to purely academic instruction.

Our findings also endorse the growing body of research on vocational training, enhancing (Schoonmaker & Caruso's 2018) conclusion that such training can improve student attendance, engagement, and overall participation. In conclusion, this study suggests that integrating skill-based courses with academic programs has the potential to significantly improve student engagement, motivation, and ultimately, learning outcomes. These findings offer valuable insights and implications for policymakers and educators seeking to develop educational programs that cater to student needs and bridge the skills gap in the workforce.

The integration of skill-based courses into academic programs has emerged as a pivotal strategy for enhancing student engagement, motivation, and overall learning outcomes. This study's findings resonate with existing literature that underscores the importance of practical skills training in educational settings. For instance, Zafar (2023) noted that better vocational training increases workforce productivity and efficiency, further boosting economic growth, which aligns with the current study's observations where students exhibited heightened enthusiasm for vocational activities, often arriving early to maximize their learning experiences (Zafar, 2023). Moreover, the findings are corroborated by Yun-Yu and Ko (2020), who emphasized that the incorporation of practical applications within academic courses fosters active learning and deeper student participation (Yun-yu & Ko, 2020). This is further supported by (Edeling & Pilz, 2016), who noted that activity-based education, particularly in skill-integrated courses, leads to enhanced student engagement compared to traditional academic instruction (Edeling & Pilz, 2016). The emphasis on interactive and practical learning environments is crucial, as Yun-Yu and Ko (2020) highlighted that effective teaching practices significantly enhance vocational

student engagement, suggesting that a stimulating learning environment is essential for fostering practical skills (Yun-yu & Ko, 2020). Additionally, Nilsson (2010) reinforced the notion that vocational education serves as a vehicle for both economic development and social inclusion, thereby enhancing its relevance in contemporary educational discourse (Nilsson, 2010). Jabeen et al.'s (2024) research provides compelling evidence that vocational education, particularly when aligned with the development of 21st-century skills, plays a crucial role in preparing students for the challenges of the modern workforce. This study, alongside other literature, reinforces the need for educational reforms that prioritize practical skills training and the cultivation of essential soft skills in vocational curricula.

The integration of skill-based courses not only addresses the immediate educational needs of students but also prepares them for the workforce, as articulated who noted the positive correlation between vocational education and economic growth (Zafar, 2023). In conclusion, the integration of skill-based courses within academic programs presents a significant opportunity to enhance student engagement, motivation, and learning outcomes. The findings of this study contribute valuable insights for policymakers and educators aiming to develop educational frameworks that address student needs and effectively bridge the skills gap in the workforce. The collective evidence from various studies underscores the necessity of adopting a holistic approach to vocational education, ensuring that it remains responsive to the evolving demands of the labor market.

Conclusion

The findings of this study show the significant impact of integrating vocational skills into non-formal education on student engagement and interest level. The data indicate that students exhibited a marked increase in interest and participation when vocational skills were incorporated into their learning experiences. Specifically, courses in stitching, beautician training, and computer literacy emerged as the most favored options among students, reflecting a strong preference for practical skill development that aligns with their personal and professional aspirations. The analysis between integrated courses and traditional classroom settings reveals that the vocational skill-based courses not only captured students' attention more effectively but also fostered a deeper sense of curiosity and motivation. Students reported that the activity-based learning approach inherent in integrated courses was particularly engaging, facilitating a more hands-on and immersive educational experience.

Moreover, the study highlights a notable improvement in student attendance and participation rates among those enrolled in integrated courses. This trend suggests that the practical application of skills within the curriculum not only makes learning more relevant but also encourages students to commit to their educational journeys. The increased regularity of attendance and active participation in tasks indicates that students are more likely to engage with their learning when they perceive it as directly applicable to their future careers. Additionally, the findings suggest that students spent more time learning at the center, which may be attributed to their heightened interest in the vocational skills being taught. This increased engagement is crucial, as it not only enhances the learning experience but also contributes to the development of essential competencies that are increasingly

demanded in the workforce. The integration of vocational skills into non-formal education presents a promising avenue for enhancing student engagement, motivation, and overall learning outcomes. By aligning educational practices with the interests and aspirations of students, educators can create more dynamic and effective learning environments that prepare individuals for the challenges of the modern job market. This study provides valuable insights for policymakers and educators seeking to reform educational programs to better meet the needs of students and bridge the skills gap in the workforce.

Recommendations

- To address the need of young adults to gain skills and support their families, primary-level non-formal adult education programs should incorporate vocational or technical training alongside literacy skills.
- Vocational training should be designed to include reading, math, and writing skills, ensuring the acquired vocational skills are effectively utilized.
- Improved collaboration between literacy course designers, academic and vocational course writers is crucial for developing high-quality integrated course materials that clearly blend academic and vocational learning.
- Integrating relevant vocational skills into literacy programs can increase student enrolment and improve classroom attendance by making learning more practical and directly applicable to their lives.
- Literacy projects should be grounded in local needs assessments. Understanding the specific needs and challenges of the target community allows for the development of more effective and relevant literacy interventions.
- Literacy courses can focus on functional skills while incorporating 3-4 major occupational skills identified through the local needs assessment. This combination equips learners with both essential literacy skills and practical job-related skills.

For further study, emphasize applied fundamental skills, employability skills, and technical skills in secondary and postsecondary education.

Declaration of Conflicting Interests

The authors declare that there are no potential conflicts of interest related to the research, authorship, and/or publication of this study.

Funding

The authors received no financial support for the research, authorship, and/or publication of this study.

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