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CONTRIBUTION OF NATIONAL ACADEMY FOR COMPUTER TRAINING AND RESEARCH (NACTAR) ON SKILL DEVELOPMENT & CREATING ENTREPRENEURSHIP

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We wish a very effective and successful use of the report.

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LIST OF ACRONYMS

BISR	Bangladesh Institute of Social Research
GoB	Government of Bangladesh
ICT	Information and Communication Technologies
KII	Key Informant Interview
NACTAR	National Academy for Computer Training and Research
NGO	Non-Government Organization
SC	Study Coordinator
SEO	Search Engine Optimization
SMM	Social Media Marketing
SPSS	Statistical Package for the Social Sciences
ToR	Terms of Reference

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EXECUTIVE SUMMARY

This study carried out by BISR Trust for National Academy for Computer Training and Research (NACTAR) to assess their contribution in skill development and entrepreneurship creation through computer training. The overall objective of the study was to assess the contribution of National Academy for Computer Training and Research (NACTAR) on skill development and creating entrepreneurship.

The study covered 500 samples as per the requirement mentioned in the ToR. Respondents were selected from 6 different courses offered by NACTAR. Questionnaire survey has been used to collect data from the respondents. In addition to that, relevant respondents were interviewed as Key Informant.

The findings of the study are organized by the study objectives.

Respondent's Demographic Profile

The demographic data shows that the mean age of the participants from professional courses was around 27 years where the mean age of the participants from all courses was found around 34 years. The male-female ratio was not equal in the trainings; women consist around 20 percent of the total participants in both professional and all selected training programs. The study also collected data on the educational qualification of the respondents. It found that 73.7 percent of the participants from all 6 selected programmes were completed their post-graduation by the time of attending the training while less than half of the participants (49.5 percent) from professional training programmes completed post-graduation by this time.

Evaluation of the Trainings

Almost all the participants (95.5 percent) mentioned that they were 'satisfied' with the training. The respondents were further asked if they were satisfied with the institutional facilities and training materials. All the respondents expressed their satisfaction about the training and institutional facilities of NACTAR.

The study identified some scope of improvements from the participant's point of view. Developing a post-monitoring system, increase manpower and recruit skilled trainers and decrease course fee were some suggestions provided by the respondents.

Effectiveness of the Trainings

All the respondents (100 percent) mentioned that they found the training effective for skill development and entrepreneurship creation. The participants were found able to use the skills developed through the training in their workplace. Moreover, the skills developed through the trainings were also helpful for employment creation.

However, despite having such positive impact of the trainings, the percentage of entrepreneurial initiative was found very limited among the participants. Those who started entrepreneurship were mostly engaged in part-time freelancing.

After observing the limited entrepreneurial initiatives among the participants, the study tends to know the reason behind this. The findings show that only 1.8 percent of the respondents attended the training for becoming an entrepreneur. Besides, only 5.4 percent of the respondents know about the entrepreneurial opportunity in this sector before attending the training. Along with these some barriers also identified which hindering their way to entrepreneurship.

Some recommendation emerged from the study which needs to be taken into consideration for the future excellence of NACTAR.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Skills, knowledge and innovation are important driving forces of economic growth and social development in any country. Countries with higher levels of education and skills, adjust more effectively to challenges and opportunities in the global economy. Bangladesh is one of the most promising nations in the world. More than 67.6% of its population fall in the working age group (15 years to older), and more than 31.6% of its total population 15-29 years of age which indicates that the population is mostly younger than other countries. So, Bangladesh needs to well equip its workforce with employable skills and knowledge so that they can contribute substantively to the economic growth of the country.

However, policies which address the issues of poverty, employment, food, etc. from time to time are not able to address the efficiency and skill of the people of the country. Therefore, the Government of Bangladesh designed The National Skills Development Policy–2011. This is a flagship programme of the Government to develop a framework, which addresses to meet the challenge of skilling at scale with speed and standard (quality). It is designed to provide as an umbrella framework to all skilling activities being carried out within the country which will align to common standards and link the skilling with demand centers. Not only this, the promotion of scientific knowledge and technological development was also prioritized by the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman. Hence, a National Science Policy has been adopted in the first Five-Year Plan (FYP) of the country under his strategic guidance and visionary leadership.

Bearing the development thought of Bangabandhu in mind, the National Academy for Computer Training and Research (NACTAR) is providing practical and pragmatic training on computer technology to create employability, skill development and entrepreneurship under the Ministry of Education of the Government of People’s Republic of Bangladesh.

Skill Development and Entrepreneurship creation on NACTAR’s Vision and Mission

Vision: Conduct research, education and training on modern computer technology to contribute to the overall economic development of the country and to build a skilled population in the field of ICT.

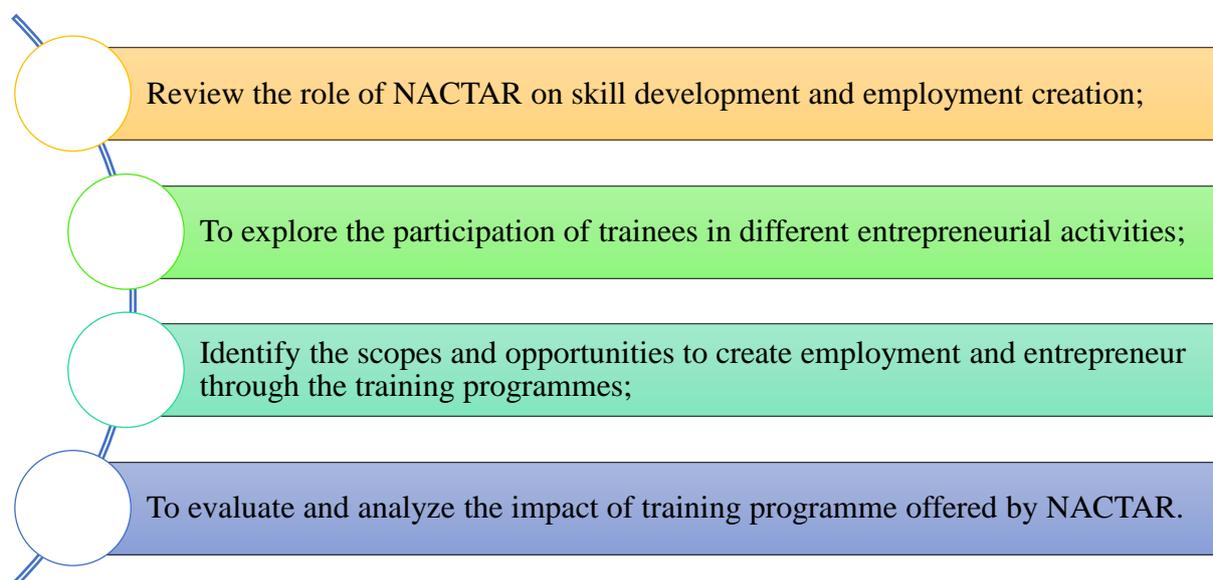
Mission:

- Conduct research, education and training in computer technology and improve knowledge in this field;
- To determine, conduct and evaluate the training syllabus required for persons working in government, semi-government, autonomous or non-government organizations;
- Conduct evaluation after training and award diplomas and certificates;
- Conduct training and research on computer technology as per the demand of government and non-government organizations .

The institution has been established with an aim to develop technology and create skilled manpower through computer training in the context of the demands of the era. It offers various short and long term courses for students as well as teachers in this sector. The objectives and activities of NACTAR clearly show how skill development efforts within the existing institutional arrangements further linked to entrepreneurship, employability and productivity. Yet, to assess their contribution in skill development and entrepreneurship creation, this study has been conducted by BISR Trust on the participants of 6 different training courses offered by NACTAR.

1.2 Objective of the Study

The overall objective of the study was to **assess the contribution of National Academy for Computer Training and Research (NACTAR) on skill development and creating entrepreneurship**. The specific objectives were to:



1.3 Scope of the Study

The study covered 500 samples according to the ToR. Respondents were selected from 6 different courses offered by NACTAR. Questionnaire survey has been used to collect data from the respondents. In addition to that, relevant respondents were interviewed as Key Informant. Though the study team started to collect data from face-to-face interview, telephone interview was used later due to corona virus lockdown all over the country.

The study team reviewed the level of effectiveness of the training offered by NACTAR on skill development and entrepreneurship creation. As well as the study team analyzed and evaluated the effective level, suitability and nature of the training to meet the current and future market demand and challenges in perspective of education system of our country.

CHAPTER TWO

METHODOLOGY

2.1 Study Approach and Methodology

The study combined both quantitative and qualitative approaches to collect the primary data. The quantitative approach were conducted through a survey by using different structured questionnaire of variables, measured with numbers and analyzed with statistical procedures.

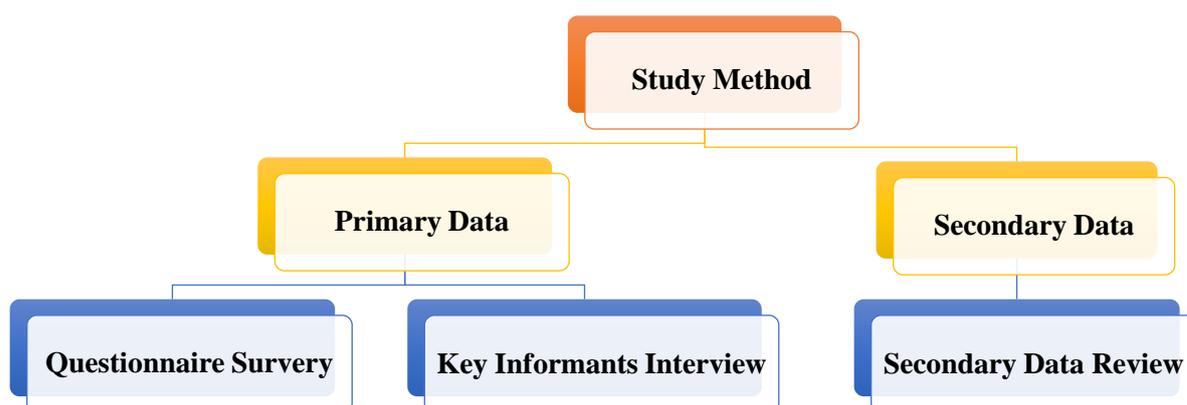


Figure 2.1: Study Approach and Methodology

Under the qualitative method, Key Informant Interviews were conducted to collect qualitative data. Data were collected from both primary and secondary sources. Furthermore, objective wise methodology was followed to make the assessment more analytical. Following were the objectives and methods followed in the study:

Review the role of NACTAR on skill development and employment creation	<ul style="list-style-type: none"> • Questionnaire Survey • Key Informant Interview
To explore the participation of trainees in different entrepreneurial activities	<ul style="list-style-type: none"> • Review of Documents • Questionnaire Survey • Key Informant Interview
Identify the scopes and opportunities to create employment and entrepreneur through the training programmes	<ul style="list-style-type: none"> • Review of Documents • Questionnaire Survey • Key Informant Interview
To evaluate and analyze the impact of training programme offered by NACTAR.	<ul style="list-style-type: none"> • Questionnaire Survey • Key Informant Interview

2.3 Study Population and Areas

This research was conducted on “*Contribution of National Academy for Computer Training and Research (NACTAR) on Skill Development and Creating Entrepreneurship*”. Therefore, the target population of this research were the participants from 6 selected training programmes namely C-Programming Language, Graphics Design (Adobe Photoshop & Adobe Illustrator), Teachers' Training Course Based on Information and Communication Technology, Advanced Certificate Course on Computer Training, Professional Freelancing with SEO, SMM, and Fundamentals of Webpage design. Participants who only received those training on or after 2014 were selected for the interview. The research team selected the number of the respondents proportionately following the appropriate research methodology from these training programmes.

2.4 Sample Size

As per the ToR, this study had to cover total 500 samples. Among them 200 samples were covered only from the professional training programmes, such as C-Programming Language, Graphics Design (Adobe Photoshop & Adobe Illustrator), Professional Freelancing with SEO, SMM, Advanced Certificate Course on Computer Training, and Fundamentals of Webpage design offered by NACTAR. Other 300 samples were collected from all the 6 selected training programmes.

2.5 Study Variables

- Nature and type of the training programme;
- Participation rate of the trainees;
- Training module;
- Skill development and training activities;
- Scopes and opportunities of the entrepreneurs;
- Application of the training;
- Ability and capacity of the training providing institute; and
- Challenges and limitation of the study.

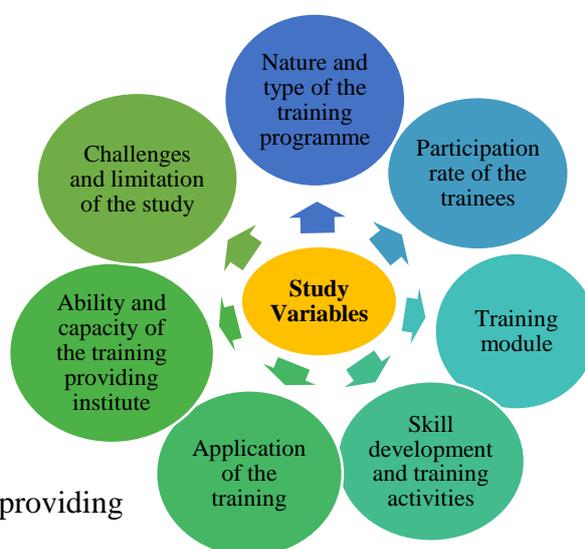
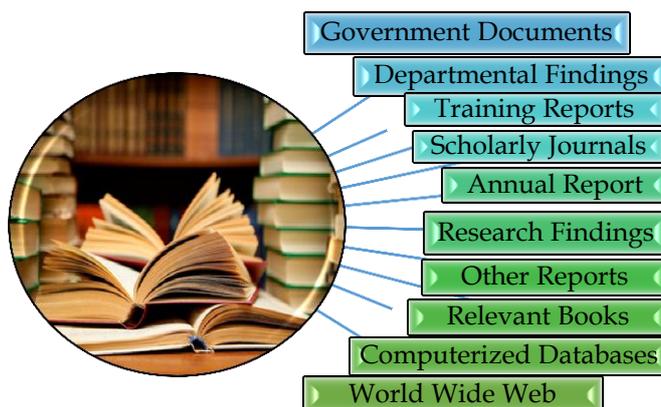


Figure 2.2: Study Variables

2.5 Data Collection and Processing

Secondary Data Collection

For the present study, a significant portion of information was collected from the secondary sources including NACTAR’s training statistics, manuals, relevant text, government documents and statistics, NGOs and private research organizations’ relevant reports, etc.



Primary Data Collection

Questionnaire Survey

A total number of 500 questionnaire samples were collected for this study. Two different questionnaires were used to conduct the interviews with participants of professional training courses and participants of all selected training courses. The questionnaires were prepared based on the objectives of the study. The questionnaires were finalized based on the comments and feedback made by the concerned experts of NACTAR.

Table 2.1: Key Informant Interview

SN.	Key Informants	Sample Size
1.	Representative of NACTAR faculty member/course coordinator/trainers	5
2.	Skill development expert and representative of the institutions, etc.	5
Total		10

Key Informant Interview (KII)

A total of 10 Key Informant Interviews were conducted with the following categories of the respondents: Representatives of NACTAR faculty members’/course

coordinator, trainers, skill development expert, representative of the relevant institutions, etc. A standard checklist was followed to conduct the KIIs.

Table 2.2: Methods of Primary Data Collection at a Glance

Type	Methods of Data Collection	Type of Respondents	Data Collection	Tools
Quantitative Investigation	Questionnaire Survey (500)	Participants of 6 selected training programs	Face-to-face Interview and Telephone Interview	Semi-structured Questionnaire
Qualitative Investigation	KII (10)	Representatives of NACTAR faculty members’/course coordinator, trainers, skill development expert, representative of the relevant institutions, etc.	Face-to-face Interview and Telephone Interview	Checklist

2.6 Implementation Phases

Recruitment and Training

BISR Trust recruited a required number of field staffs for conducting the survey smoothly and to complete all the tasks within the defined timeframe. Study team arranged a 2-day tailored and in-depth training program for the field staffs that included in-house orientation and repeated practice sessions. Finally, BISR Trust selected the required number of Field Investigators (FI) through oral and written test.

Monitoring and Supervision

The investigation teams were guided by one Study Coordinator (SC). Supervisors were recruited to maintain contacts with the BISR Trust office day to day basis on the progress of data collection. The Supervisors were responsible for ensuring supervision and management of team at the field level by assigning and taking stock of team's day's work by survey, arrange and accommodation, coordinate with local institutions. They re-interviewed a significant portion of data for the validation purpose.

Quality Control

Following the standard quality control method, a sample size of 5% was selected randomly for quality rechecking. Quality Control interview findings were compared with the original interviews. The Quality Control interviews were conducted by the Quality Control Officers.

Registration of Documents

There were one registration section in the office and the main responsibility of this section was to keep track of the filled-in interviewing documents, information schedules, performance reports and other necessary papers.

Data Editing

The information collected during fieldwork was scrutinized 100% of each interviewer's interview schedule to check the quality of the raw data. It is basically a process of examination to detect errors, omissions of any and to correct these wherever possible and the respondents may be re-interviewed at the field level, if needed. The field staff and in-house staff were involved to edit data at field level.

Coding

Coding system was developed and all data were coded. Individual coding manual were developed for individual questionnaire by the experts.

Data Entry and Cleaning

Data entry was conducted by data entry operator under the supervision of data analyst. Before data entry a data entry program was developed in SPSS. Data cleaning is an important procedure during which the data were inspected, and erroneous data were corrected. Data cleaning was done during the stage of data entry.

In case of qualitative data which consists of words and observations, not numbers, were checked and cleaned carefully in light of the research objectives.

Data Consolidation and Processing				
Registration of Documents	Data Editing	Data Coding	Data Entry	Data Cleaning

Figure 2.3: Stages of Data Consolidation and Processing

Data Analysis

For the present study, quantitative data were analyzed by using SPSS in light of the study objectives. Qualitative data were analyzed in light of the study objectives by following two data interpretation techniques like content analysis and narrative analysis. After data analysis, a report was prepared presenting the results.

Report Writing

After completing the field data collection and data analysis, the report has been prepared in light of research objectives. The results were presented as texts, tables, maps and pictures.

Ethical Consideration

Ethical issues were highly considered in this study. Before starting the interview, the respondents were necessary clarifications regarding the nature and purpose of the study. Each interview was conducted upon taking either written or verbal consent of the respondent. The respondents were clearly informed that the information is confidential and individual level information would not be disclosed to any person or other agency. The investigators were provided training on relevant issues. After completion of field level survey, the data were stored in safe and restricted place, only researchers have the access to data.

CHAPTER THREE

FINDINGS OF THE STUDY

This section contains the findings of the study according to the pre-determined objectives. Relevant qualitative and quantitative data was combined and presented below:

3.1 Demographic Profile of the Respondents

Age: The present study collected data from 500 respondents participated in 6 selected training courses provided by NACTAR. As mentioned earlier, the participants of the professional courses were interviewed by using a separate questionnaire, the average age of the respondents were different from the average age of the participants from all courses. Data shows that the mean age of the participants from professional courses was around 27 years where the mean age of the participants from all courses was found around 34 years.

Difference was also noticed in the minimum and maximum age of the participants. It shows that the minimum age of the participants from professional courses were 19 years and maximum age was 50 years. On the other hand, both the minimum and maximum age was higher in case of participants from all courses, 20 years and 65 years respectively. The age of an individual plays a vital role on skill development and pursuit of entrepreneurship.

The chances of becoming entrepreneur are likely to be high among the participants who completed their education before taking the training. Studies in this area also mentioned that the positive impact of age on self-employment is based on the view that the quantity of the financial and human capital that one possess and that are necessary for starting and conducting the business increases with age (Johansson, 2000; Arum and Müller, 2004; Parker, 2009). Moreover, the studies of Carr, 1996; Blanchflower, 2000; and Blanchflower, 2004 found that the probability of self-employment increases with age.

Sex: The sex ratio of the participants clearly shows the underrepresentation of women in the fields of science, technology, engineering, and mathematics (STEM). Data from the survey reveal that women consist around 20 percent of the total participants in both professional and all selected training programs (Figure 3.1). This data is found consistent with the Gender Statistics of Bangladesh, published by Bangladesh Bureau of Statistics in 2018. It shows that the share of female STEM

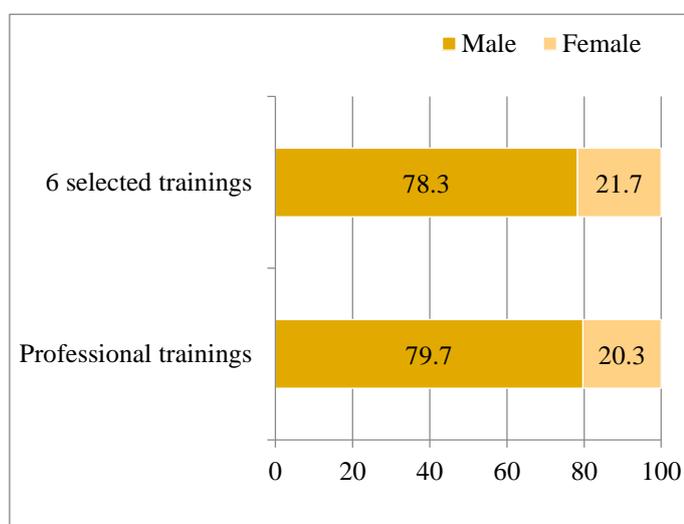


Figure 3.1: Sex ratio of the respondents

graduates in tertiary level is only about 20 percent.

Education: Similar to age, certain studies suggest that there is a positive impact of education on the self-employment probability (Evans and Leighton, 1989; Carr, 1996; Robson, 1998; Blanchflower, 2000; Moore and Mueller, 2002; Ritsilä and Tervo, 2002; Blanchflower, 2004). The present study, therefore, collected data on the educational qualification of the respondents. It found that 73.7 percent of the participants from all 6 selected programmes were completed their post-graduation by the time of attending the training while less than half of the participants (49.5 percent) from professional training programmes completed post-graduation by this time (Table 3.1).

Table 3.1: Educational qualification of the respondents

Level of Education	Professional trainings (%)	6 selected trainings (%)
HSC	2.0	4.3
Diploma (4 Years)	3.0	6.0
Graduation	43.1	16.0
Post-graduation	49.5	73.7
Madrassa education	2.5	--
Total	100.0	100.0

3.2 Evaluation of the Trainings by the Participants

Level of Satisfaction: The study team used various questions to measure the level of satisfaction among the participants. In one such question, respondents had to rate the training. After analyzing their answers it shows that almost all the participants (95.5 percent) mentioned that they were ‘satisfied’ with the training while some 3.5 percent rated it ‘highly satisfied’ and only 1.0 percent rated it ‘fairly satisfied’ (Figure 3.2). None of them rated the training ‘poor’.

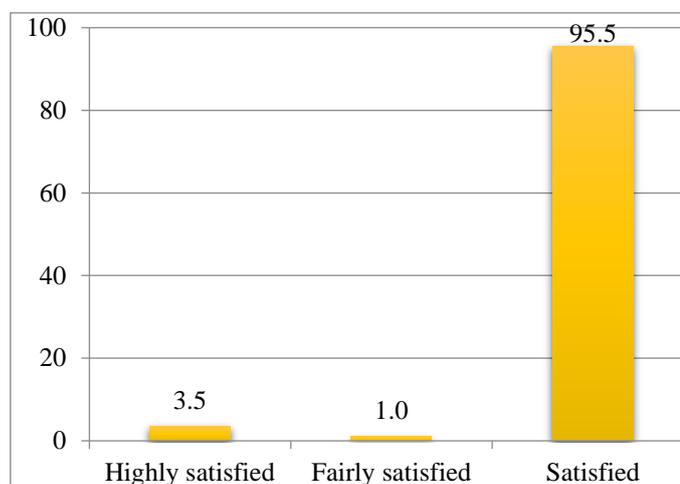
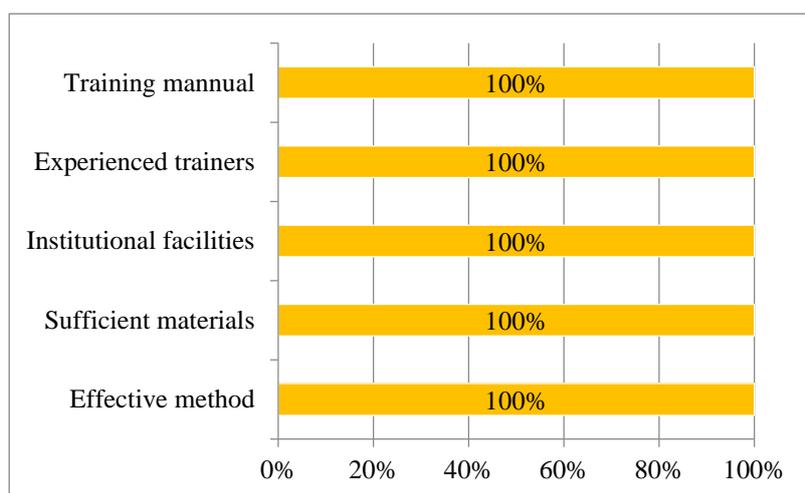


Figure 3.2: Level of Satisfaction of the participants

Further the questionnaire led to the questions where the respondents were asked if they were satisfied with the institutional facilities and training materials. All the respondents expressed their satisfaction about the institutional facilities of NACTAR along with the training content, trainers, methods of the training and the materials provided during the training (Figure 3.3).



Because of their high level of satisfaction with the training programmes 99.4 percent of the participants said that they would recommend their friends and colleagues to attend the trainings. This kind of positive impression works as strength for further development of the organization.

Figure 3.3: Participant’s feedback on various aspects of trainings

Scope of improvement: Along with assessing the satisfaction level of the participants, the study identified some scope of improvements from the participant’s point of view. For this, the respondents were asked to provide some suggestions for the institution. In response, all the surveyed participants (100 percent) stated that there is no follow-up system after the training which they think necessary to collect information about what the trainees doing after completed the trainings (97.5 percent) and support them with necessary guidance (2.5 percent). Furthermore, half of the participants (50 percent) thought that the institution needs to increase manpower and recruit more skilled trainers to improve the quality of their trainings. Another 50 percent of the respondents mentioned that the course fee needs to be decreased (Table 3.2).

Table 3.2: Suggestions for the institution

Feedback	Response	Percentage (%)	Total
Follow-up-system needed	Yes	100.0	100.0
	No	--	
Increase manpower and recruit skilled trainers	Yes	50.0	100.0
	No	50.0	
Course fee needs to be reduced	Yes	50.0	100.0
	No	50.0	

However, the necessity of follow-up system was also acknowledged by the Key Informants of the study. As stated by one of the Key informants:

‘Of course we need to develop a post-monitoring system which will help us to know the status of former students’.

From the interview with the NACTAR officials the study team came to know that the organization was working on the development of a post-monitoring system and they are connecting with their former students with a social media group.

3.3 Effectiveness of the Trainings on Skill Development

During the interview the sample participants were asked to mention if the training was effective for skill development and entrepreneurship creation. All the respondents (100 percent) mentioned that they found the training effective for skill development.

Evaluation of participant’s knowledge and skill: To evaluate their knowledge and skill, the survey questionnaire included some questions from their training manuals where the participants asked to identify the correct answers from some options. It found that almost all the participants answered the questions correctly which depicted their good level of knowledge and skill on the subjects they have received trainings (Table 3.3).

Table 3.3: Evaluation of respondents knowledge and skill

Questions	Correct answers given by the respondents (%)
Which one is the ANSI supported keyword?	100.0
Do you know about conditional statement?	100.0
Which one is an escape sequence?	100.0
What is the memory size of long int data type?	100.0
What is the ASCII code of Horizontal Tab?	100.0
Which one is the graphics software?	100.0
What should be the ideal resolution of a photo?	100.0
What is the safe zone of business card?	100.0
Which color is mostly used in Adobe Illustrator?	100.0
What is standard measurement of a letter head in our country?	100.0
What is the full form of SEO?	100.0
What is SERP?	100.0
Which tool is used to determine the value of a keyword?	92.3
What does CSS mean?	100.0
What is CTR?	100.0
What is HTML?	85.7
Which one is a code editor?	100.0
What is JQuery?	100.0
What is the full form of CMS	100.0
Which one is a database management system?	95.0
What kind operating system is Linux?	84.3
Which one is Compound Logic Gate?	74.8
What is SDLC?	95.0
Which one is a network device?	81.8

Beneficial lessons: To explore more about the contribution of the trainings on skill development, the respondents were asked to mention a part of the training which they found most effective for skill development. About one-third of the respondents (32.2 percent) stated that the lessons on MS Word were most effective for skill development in this sector. Almost

same number of respondents (31.8 percent) found MS Excel as most effective while the others indentified typing (25.8 percent), word press (6.7 percent), java script (2.1 percent) etc. as the effective one (Table 3.4).

Table 3.4: Beneficial lessons for skill development

Response	Percentage
MS word	32.2
MS excel	31.8
Typing	25.8
Word press	6.7
Java script	2.1
Practical class	1.2
HTML	0.2
Total	100.0

Implementation of the skills: The study team also investigated if the participants were able to use the skills developed through the training in their workplace. More than two-third of the respondents (77.7 percent) said that they were able to use the skills in their workplace (Table 3.5).

Table 3.5: Use of skills in the workplace

Response	Percentage
Yes	77.7
No	22.3
Total	100.0

Those who said that they used the skills in their workplace; in a supplementary question they were asked how they used the skills. Among them half of the respondents (50 percent) mentioned that they used MS Excel for book keeping while others

talked about the use of MS Word in official work.

Impact on employment creation: During the interview with the participants, the study team came to know that the skills developed through the trainings were helpful for them to get job. About half of the respondents (50.5 percent) indicated that the skills of using MS Word helped them to get their present job. Besides, MS Excel was helpful for other 49.5 percent of the respondents (Figure 3.4). Along with the skills, the certificates they have received from the trainings were also helpful as some job requires computer literacy certificate.



Figure 3.4: Impact of the skills on employment

3.4 Impact of the Trainings on Entrepreneurship Creation

Similarly almost all the participants (99.4 percent) of 6 selected trainings thought that the skill developed through the training were useful for entrepreneurship creation while the percentage was 93.7 for the participants of professional training programmes.

Table 3.6: Entrepreneurial activities started

Response	Professional trainings (%)	6 selected trainings (%)
Yes	3.0	12.3
No	97.0	87.7

Creation of Entrepreneurship: Despite having such positive impact of the trainings offered by NACTAR, the percentage of entrepreneurial initiative was found very limited among the participants. Data revealed that only 3 percent of the participants from professional trainings started entrepreneurship in this sector after completed the training where 12.3 percent of the participants from all courses pursuit entrepreneurship with the skills developed through the trainings (Table 3.6).

Total	100.0	100.0
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Nature of Entrepreneurship: The respondents, who said that they have started entrepreneurship after completing the training, were further asked about the nature of their entrepreneurship. All the 3 percent of the respondents from professional training group mentioned that they started full time freelancing with the skills they achieved from the training. On the other hand respondents from 6 selected training courses pursuit different kind of entrepreneurship after completed the trainings. Table 3.7 shows that the highest number of participants (64.8 percent) started part-time freelancing, though some of them mentioned that sometimes they are doing in-kind work or voluntary work for different schools and

Table 3.7: Nature of entrepreneurship

Response	Percentage
Full Time Freelancer	10.8
Part-time freelancer	64.8
Trainer	18.9
Online Business	5.4
Total	100.0

government institutions for which they are not receiving any money. Some 18.9 percent was providing training beside their regular job. Around 10.8 percent of the respondents have taken freelancing as their full time work. Online business has also been started by 5.4 percent of the respondents.

However, when asked if this was their main source of income, more than four-fifth (86.5 percent) of the respondents replied with ‘No’ as they were doing another business or job beside this. Some other 13.5 percent identified it as their main income.

Monthly income: After collecting data on entrepreneurial status of the respondents, the study seeks to know their monthly income. Respondents of professional trainings mentioned that they started their business very recently, so that they were not able to generate income from this yet. Contrary to this, more than half of the respondents (51.3 percent) of 6 selected trainings replied that their monthly income fell in the range between no income-Below BDT. 5000. Around 18.9 percent of them said that they earned BDT. 5000- BDT. 10000 from their business. However, the proportion of the respondents earned more than BDT. 30000 were not very large, around 13.5 percent (Figure 3.5).

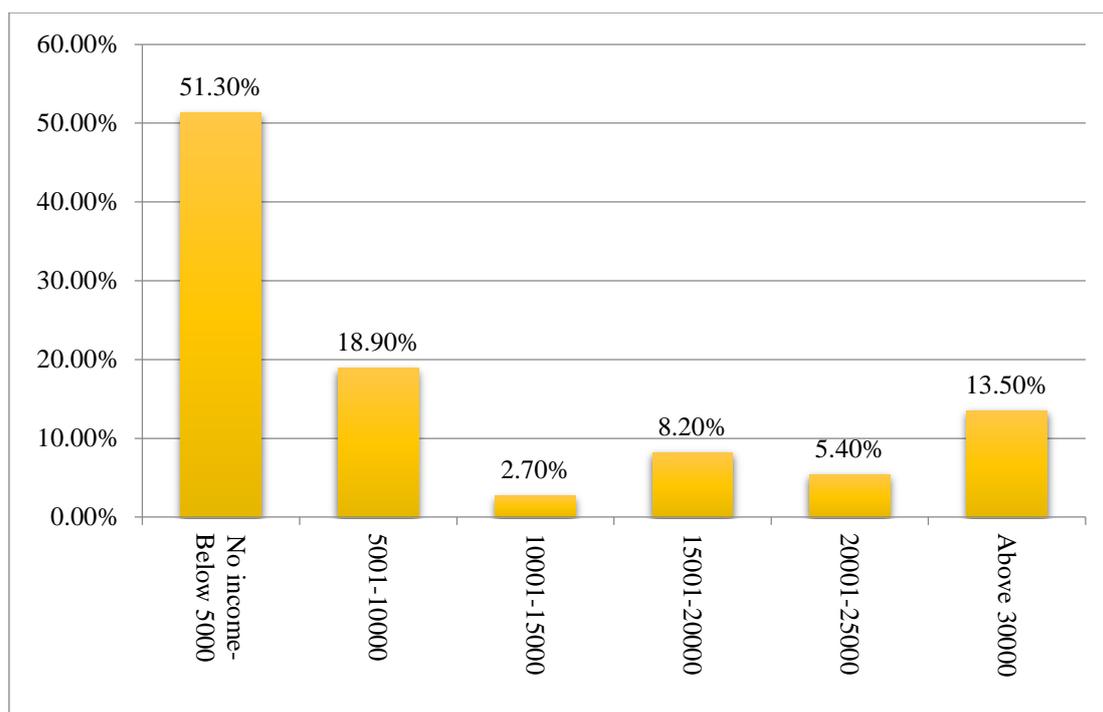


Figure 3.5: Monthly income of the respondents

3.5 Reason behind Limited Entrepreneurship Creation

After observing the limited entrepreneurial initiatives among the participants, the study tends to know the reason behind this.

Table 3.8: Purpose of training

Purpose	Percentage
Gather knowledge about basic computer	46.4
Achieve certificate for job	31.2
Gather knowledge about webpage design	10.4
Gather knowledge about programming	7.5
Becoming an entrepreneur	1.8
For skill development	2.7
Total	100.0

Purpose of attending the training:

As mentioned earlier, the percentage of entrepreneur was very low among the respondents from professional trainings where the percentage supposed to be higher in this case. Hence, the participants of the

professional trainings were asked about the purpose of attending the training. The findings show that only 1.8 percent of the respondents attended the training for becoming an entrepreneur. To gather knowledge about basic computer (46.4 percent), achieving computer literacy certificate for job (31.2 percent), gather knowledge about webpage design (10.4 percent) and programming language (7.5 percent) were their main purposes of attending the trainings (Table 3.8).

Table 3.9: Knowledge about entrepreneurship

Response	Percentage
Yes	94.6
No	5.4

Knowledge about entrepreneurship: Besides

Total	100.0
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exploring the purpose of the training, the study identified if the participants knew about the entrepreneurial opportunity in this sector before attending the training. Data presented in table 3.9 indicated that 94.6 percent of the total participants did not know about it before while only 5.4 percent of them responded positively. Those who knew about it earlier, get the information from social media. Those who did not know about it before were asked further when and how do they came to know about this. Almost all the participants (99.4 percent) replied that they get to know it only after attending the training. This kind of limited knowledge entrepreneurial opportunity in this sector leads to limited entrepreneurship creation.

Barriers to entrepreneurship in this sector: Survey with the participants of the trainings explored some barriers to entrepreneurship in this sector which discouraged the respondents to take the initiative. Both the participants of professional as well as 6 selected trainings asked to mention some barriers. Figure 3.6 shows that some common barriers were identified by the respondents such as lack of financial support, technical support and advance training. Additionally, participants of 6 selected trainings identified lack of family support (9.2 percent), lack of confidence (10 percent), insufficient knowledge about online market (7.9 percent) etc. as the major barriers to entrepreneurship in this sector (Figure 3.6).

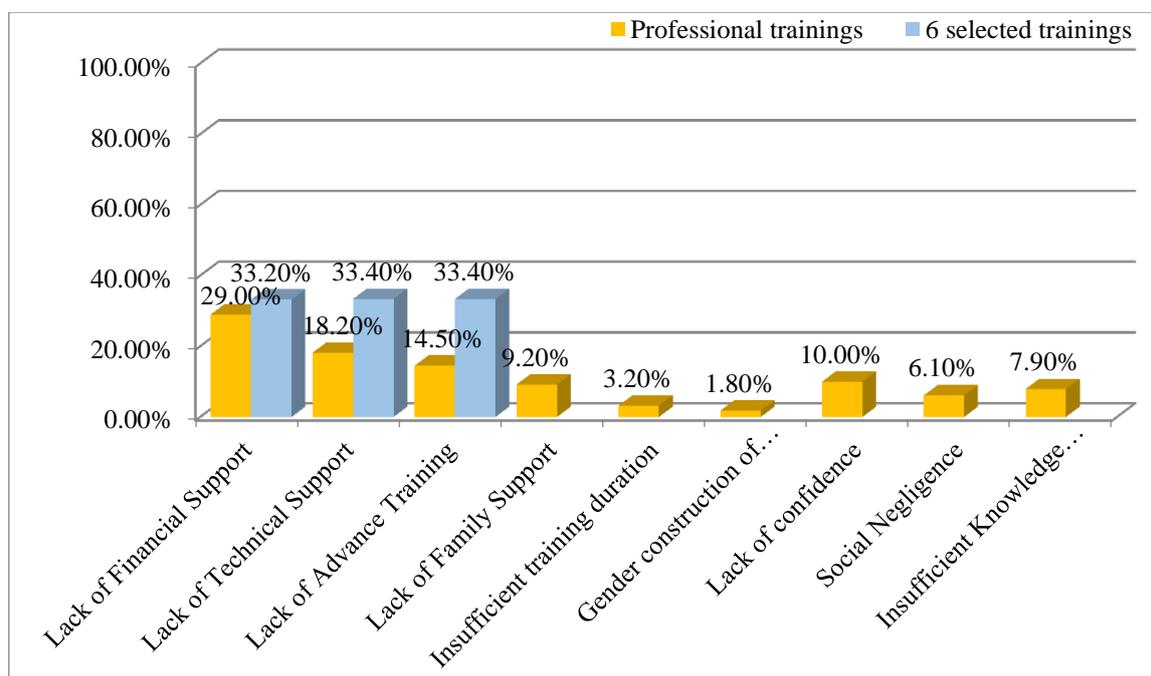


Figure 3.6: Barriers to entrepreneurship

The KII respondents also talked about lack of logistics or technical support faced by the respondents. One of the Key Informants stated that:

‘Many students did not even have own computer. For this, they couldn’t practice properly at home’.

Moreover, the age and education of the participants also played a vital role in creating entrepreneurship in this sector. The study found that most of the participants of professional trainings were student which means they have a very little chance to enter into entrepreneurship. In addition, it has been noticed that the age of the participants of professional trainings was lower than the 6 selected trainings which also minimized their chance to become entrepreneur.

All of these above mentioned factors contribute a lot in case of skill development and entrepreneurship creation. Consequently, though the trainings have immense contribution in skill development, the limitations and barriers faced by the respondents detain their way to becoming entrepreneur.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATION

In the modern world Information and Communication Technology is being used as the key instrument for human development. In all sectors like education, research, agriculture, business, medicine, even for personal use at home and outside, technology is of great support. Today, our days are characterized by an explosion of innovative technologies blurring the lines between the physical, digital and cyber realities of our lives. To adapt to this new environment and ‘future-proof’ the nation, the youth need to learn how to engage with technology.

The Bangladesh government is committed to embracing this new direction and has made digitization a national priority. The government has also called for greater skills development of the youth to ensure their employability in any industry. The Vision 2021 visualizes a Bangladesh where the use of technology would be the guiding force of economic development. Moreover, the demographic dividend that has been created in Bangladesh has produced a large working-age population. The country requires making the best use of the ICT sector to create new entrepreneurs as well as to ensure jobs for all unemployed.

The National Academy for Computer Training and Research (NACTAR) is working with the goal to turn these huge populations into skilled workforces and create new entrepreneurs to build a developed nation. As a part of this, the academy has introduced various courses targeting the young population of the country. The present study has been conducted with an aim to assess their contribution and identifying gaps for future development.

The findings of the study clearly show that the training programs conducted by NACTAR have an immense contribution on the skill development of youths in the country which leads to entrepreneurship creation to a limited extent. It is not the fact that the skills developed through the trainings are not useful for entrepreneurial activities, various limitations were identified in the study which contributed behind this.

However, the study team came up with some recommendation at the end of the study as well as some recommendation has been emerged from survey and KII which is following:

- ✚ Develop a post-monitoring system and a data bank for further assessment of NACTAR’s training programs;
- ✚ Analyze the profile of the trainees before admission which will be helpful for making a statistical assumption about their employment and entrepreneurship status in future;

- ✚ Age and educational qualification of the trainees needs to be taken into consideration while selecting them for professional training programs;
- ✚ Increase the number of skilled trainers and manpower;
- ✚ Strengthen the internet connection;
- ✚ Arrange training for the trainers regularly;
- ✚ Arrange seminar and workshop for providing technical support to the former students;
- ✚ Establish modern computer labs; and
- ✚ Increase the infrastructure facilities to allocate more trainees;

The study emphasizes on consideration of all the recommendations for the future excellence of NACTAR.

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ANNEX: DATA COLLECTION TOOLS

Questionnaire Survey

Serial No.

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Contribution of National Academy for Computer Training and Research (NACTAR) on Skill Development and Creating Entrepreneurship

Respondents' Type: Participants of training programs of NACTAR.

Name of the Respondent :

Age :

Address :

Mobile No. :

Quality Control Officer:

Interviewer Name:

Date of Interview:

Start time: End:

Study Conducted By

Bangladesh Institute of Social Research (BISR) Trust
Hasina De Palace, Appt. 6B, House # 6/14, Block # A, Lalmatia, Dhaka-1207.

Tel: +88-02- 8100636, 8100658, Cell: +8801711071053,

E-mail: bisr@agnionline.com, Website: www.bisrbd.org

March 2021

Section 1: Demographic Profile of the Respondents			
SL	Questions	Answer	Code
1.	Name		
2.	Age (mention please)		
3.	Educational Qualification	SCC	1
		HSC	2
		Diploma (4 Years)	3
		Horn's	4
		Masters	5
		Others	88
4.	Sex	Male	1
		Female	2
		Transgender	3
5.	Upazila (mention please)		
6.	District (mention please)		
7.	Occupation (mention please)		
Section II: Information on Training			
8.	Which training program did you attend in NACTAR?	C-Programming Language	1
		Graphics Design	2
		Professional Freelancing with SEO, SMM	3
		Fundamentals of Webpage design	4
		Advanced Certificate Course on Computer Training	5
9.	When did you receive the training? (batch/session)		
10.	What was the training duration?		
11.	From where you get the information about this training course?	Notice board	1
		Phone call	2
		Email	3
		Website	4
		Course coordinator (face to face)	5
		Advertisement on national daily	6
		Others	88
12.	What was percentage of women in your batch?		
13.	Would you please mention the purpose of attending this training?	1.	
		2.	
		3.	
14.	Please mention the training method NACTAR has followed during the training period.	Oral presentation	1
		Video	2
		Learning through practicing	3
		Others (mention please)	88
15.	Did you find the method effective?	Yes	1
		No	2
16.	Did you receive any training materials?	Yes	1
		No	2
17.	Were the training materials sufficient?	Yes	1
		No	2

18.	Does the institute have satisfactory institutional facilities for the training?	Yes	1
		No	2
19.	Does it have good number of experienced trainers to continue the training?	Yes	1
		No	2
20.	How was the relation between the trainers and trainees?	Excellent	1
		Good	2
		Fair	3
		Poor	4
		Very poor	5
21.	Do you think the training manual covered all the important topics of this subject?	Yes	1
		No	2
22.	If no, what more needs to be included?		
23.	Do you think it is economically beneficial for the participants to undertake such course?	Yes	1
		No	2
24.	Please explain the reason.		
25.	Was there any follow-up system after the training?	Yes	1
		No	2
26.	If no, do you think it is necessary?	Yes	1
		No	2
27.	If yes, what is the reason?		
28.	How much are you satisfied with the training programme?	Highly satisfied	1
		Fairly satisfied	2
		Satisfied	3
		Less satisfactory	4
		Least satisfactory	5
Section III: Information on skill development			
29.	Which course/part of the training was most beneficial to you?		
30.	Do you think this training is effective for skill development?	Yes	1
		No	2
31.	Which knowledge or skill of the training program is found to have a greater impact on your employment?		
Participants only attended the C-Programming Language training will answer these questions (30-34)			
32.	Which one is the ANSI supported keyword?	Goto	1
		Whom	2
		Did	3
		Type	4
33.	Do you know about conditional statement?	Yes	1
		No	2
34.	Which one is an escape sequence?	\l	1
		\r	2
		\p	3
		\m	4
35.	What is the memory size of long int data type?	1 byte	1
		2 byte	2
		3 byte	3
		4 byte	4
36.	What is the ASCII code of Horizontal Tab?	0	
		5	
		9	
		8	
Participants only attended the Graphics Design training will answer these questions (35-39)			
37.	Which one is the graphics software?	Python	1

		Adobe reader	2
		Adobe Illustrator	3
		javatpoint	4
38.	What should be the ideal resolution of a photo?	200 pixel	1
		300 pixel	2
		400 pixel	3
		500 pixel	4
39.	What is the safe zone of business card?	1.50" X 3.15"	1
		1.65" X 3.20"	2
		1.75" X 3.25"	3
		1.80" X 3.35"	4
40.	Which color is mostly used in Adobe Illustrator?	CMYK	1
		GHIK	2
		CHIK	3
		CIYK	4
41.	What is standard measurement of a letter head in our country?	Height 11.69in X Width 8.27	1
		Height 11in X Width 8.5	2
		Height 11.5in X Width 8.3	3
		Height 11.55in X Width 8.2	4
Participants only attended the Professional Freelancing with SEO, SMM training will answer these questions (40-44)			
42.	What is the full form of SEO?	Search Engineering Optimization	1
		Search Engine Optimizing	2
		Search Engine Optimization	3
		Search Engineering Optimizing	4
43.	What is SERP?	Search engine results pages	1
		Search engineering results pages	2
		Search engine results points	3
		Search engineering results points	4
44.	Which tool is used to determine the value of a keyword?	General Webmaster Guideline	1
		AnswerThePublic	2
		Quality Rater Guideline	3
		JSON-LD	4
45.	What does CSS mean?	What a website says	1
		How it behaves	2
		How it works	3
		How it looks	4
46.	What is CTR?	Click-through percentage	1
		Click-through ratio	2
		Click-through rate	3

		Click-through level	4
Participants only attended the Fundamentals of Webpage design training will answer these questions (45-49)			
47.	What is HTML?	Hyper Text Marketing Language	1
		Hyper Text Markup Language	2
		Hyper Text Markup List	3
		Hyper Tools Markup Language	4
48.	What is Nusai?	A template	1
		A website	2
		A software	2
		An editing tool	4
49.	Which one is a code editor?	Canva	1
		Freepik	2
		Brackets	3
		Pixabay	4
50.	What is JQuery?	Programming language	1
		JavaScript Library	2
		Programming framework	3
		Template	4
51.	What is the full form of CMS	Content management software	1
		Content managing system	2
		Content management solution	3
		Content management system	4
Participants only attended the Advanced Certificate Course on Computer Training will answer these questions (50-54)			
52.	Which one is a database management system?	MS powerpoint	1
		MS Access	2
		MS word	3
		MS Excess	4
53.	What kind operating system is Linux?	Real time	1
		Open source	2
		Time sharing	3
		Network	4
54.	Which one is Compound Logic Gate?	AND	
		OR	
		NOT	
		NOR	
55.	What is SDLC?	System Development Life Cycle	
		System Development Logic Cycle	
		System Design Life Cycle	
		System Design Logic Cycle	

56.	Which one is a network device?	LAN	
		WAN	
		NIC	
		MAN	
Section IV: Information on entrepreneurship creation			
57.	Did you find the skill learned from the training useful for entrepreneurship creation?	Yes	1
		No	2
58.	Did you know about the scope of entrepreneurship in this sector before attending the training?	Yes	1
		No	2
59.	If yes, how did you know about it?		
60.	If no, did you come to know this after attending the training?	Yes	1
		No	2
61.	Did you pursue any kind entrepreneurship based on the skills you have received from the training?	Yes	1
		No	2
62.	If yes, what kind of? (mention please)		
63.	When did you start this?		
64.	Did it require any capital to start this?	Yes	1
		No	2
65.	If yes, how did you manage the capital?	Own savings	1
		Relatives	2
		Bank loan	3
		Others (mention please)	88
66.	Are you continuing this now?	Yes	1
		No	2
67.	If yes, what is your monthly income from this?		
68.	If no, why did you close it?		
69.	Did you create any employment?	Yes	1
		No	2
70.	If yes, how many people are working in your business?		
71.	Did you need to undertake any other training on this to run your business properly?		
72.	If yes, what was it?		
73.	Is this your main source of income?	Yes	1
		No	2
74.	If no, what are you doing beside this? (please mention)		
75.	Is there any scope to implement this skill in your workplace?	Yes	1
		No	2
76.	If yes, what is the implication? (please mention)		
77.	How many trainees from your batch pursued entrepreneurship in this sector?		
78.	Among them how many are women?		
79.	Did anyone pursue entrepreneurship in this sector by seeing you?	Yes	1
		No	2
80.	If yes how many?		
81.	Did you help them to develop their skill in this sector?	Yes	1
		No	2
82.	If yes, how did you help them?		
83.	What are the main barriers people facing while pursuing entrepreneurship in this sector?		
84.	How these barriers can be minimized?		
Section V: Recommendation			
85.	Do you recommend others to undertake this training?	Yes	1
		No	2

86.	What suggestions do you have for the institute?		
87.	How can the training be more useful for future participants?		

Thank you for giving time

Small Group Interview Questionnaire

Serial No.

Contribution of National Academy for Computer Training and Research (NACTAR) on Skill Development and Creating Entrepreneurship

Respondents' Type: Participants of training programs of NACTAR.

Name of the Respondent : _____

Age : _____

Address : _____

Mobile No. : _____

Quality Control Officer:

Interviewer Name:

Date of Interview:

Start time: End:

Study Conducted By

Bangladesh Institute of Social Research (BISR) Trust
Hasina De Palace, Appt. 6B, House # 6/14, Block # A, Lalmatia, Dhaka-1207.
Tel: +88-02- 8100636, 8100658, Cell: +8801711071053,
E-mail: bisr@agnionline.com, Website: www.bisrbd.org

March 2021

SL	Question	Answer	Code
1.	Name		
2.	Age (mention please)		
3.	Educational Qualification	SCC	1
		HSC	2
		Diploma (4 Years)	3
		Horn's	4
		Masters	5
		Others_____	88
4.	Sex	Male	1
		Female	2
		Transgender	3
5.	Which training program did you attend in NACTAR?	C-Programming Language	1
		Graphics Design	2
		Professional Freelancing with SEO, SMM	3
		Fundamentals of Webpage design	4
		Advanced Certificate Course on Computer Training	5
		ICT Teachers Training	6
6.	Do you think this training is effective for skill development?	Yes	1
		No	2
7.	Did you find the skill useful for entrepreneurship creation?	Yes	1
		No	2
8.	If yes, did you pursue any kind entrepreneurship based on the skills you have received?	Yes	1
		No	2
9.	If yes, what kind of? (mention please)		
10.	When did you start this?		
11.	What is your monthly income from this?		
12.	Is this your main source of income?	Yes	1
		No	2
13.	What are the main barriers people facing while pursuing entrepreneurship in this sector?		

Thank you for giving time

KII Checklist

Contribution of National Academy for Computer Training and Research (NACTAR) on Skill Development and Creating Entrepreneurship

Respondent Type: Representative of NACTAR faculty Member/ course coordinator, etc.

Upazila: _____ Union: _____

Village: _____

Name of the Key Informant: _____

Age: _____

Mobile No.: _____

Position: _____ Organization: _____ Location: _____

Date:-----

Quality Control Officer : -----

Name of Field Investigator:-----

Starting Time:----- End Time:-----

Starting Time:----- End Time

Study Conducted By

Bangladesh Institute of Social Research (BISR) Trust
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March 2021

Questions:

1. What are the main purposes of these training programmes?
2. What are the goals and objectives of NACTAR covering these training programmes?
3. How is the male-female participation ratio among the teachers and other trainees?
4. How is the participation ratio based on the age group?
5. How do the trainees receive information and notices?
6. How does the training programme help to develop skill among the participants?
7. How does the training programme contribute in creating entrepreneurship among the participants?
8. Do you have any post-monitoring system for the trainees? If yes, how do you monitor and what are the findings?
9. If not, do you think it is necessary to develop any post-monitoring system?
10. What percentage of the trainees became entrepreneur after receiving these trainings?
11. What kind of entrepreneurship they are involving into?
12. What is the rate of success?
13. Are they coming to you for any kind of suggestion regarding this?
14. Is there any major challenges faced by the trainees during the training that needs be minimized?
15. In your opinion, what are the major challenges faced by the trainers?
16. Are the infrastructure facilities enough for the participants? Please add some recommendations for the betterment of NACTARs' facilities.
17. In your opinion, what more or new training course or session you think NACTAR can include in creating more entrepreneurship and skill development.

Thank you