

ICT Skills Assessing: A Case of Foundation Training Course Conducted by BARD

Kazi Sonia Rahman

Joint Director, Bangladesh Academy for Rural Development (BARD), Cumilla, Bangladesh, E-mail: sonia@bard.gov.bd

Abstract

Skills enabling and ensuring universal access to information have been investigated intensively during the past few years. The general objective of the study was to analyze the need assessment skill of the participants of the Foundation and Special Foundation Course. A total of 272 respondents were finally included in the study from three Foundation Training courses and three Special Foundation Courses using a purposive sampling technique. The research results provide knowledge on ICT skills. Most of the participants have basic ICT knowledge. In some cases such as typing skills, organizing online meetings, developing online questionnaires, MS office applications, networking, and e-Nothi they are not skilled enough to serve their official task smoothly. It is also found from the study among the respondents that physicians are poor in ICT compared to other officials. Most of the participants are not aware of ICT policy and can't manage ICT work as per policy.

Keyword: Need assessment, ICT skill, Foundation Training Course

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Corresponding Author: Kazi Sonia Rahman, Joint Director, Bangladesh Academy for Rural Development (BARD, Cumilla, Bangladesh, E-mail: sonia@bard.gov.bd

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Introduction

Universal access to digital information has drawn a lot of attention in recent years because, with adequate ICT skills, citizens can make use of some essential services in digitalized societies. For preventing digital gaps in citizens' exclusion from essential services society and when guaranteeing universal access to information, ICT skills are necessary for educational systems and methods. The proliferation of Information and Communication Technologies (hereinafter ICTs) in the last decades has either changed or the tailored

job responsibilities of most professionals including government officials. ICT is critical to the countries intending to move forward to an information or knowledge-based society. If applied and used appropriately, ICT can act as a development enabler for individuals, organizations, and countries (ITU, 2013, p. 17). Bangladesh, like most developing countries, recognizes the potential of ICTs as an unprecedented lever for economic emancipation as well as an enabler for poverty human development. Bangladesh Academy for Rural Development, Cumilla is one such organization that has also taken

many initiatives in Human Resource Development in Bangladesh. Every year BARD conducts several Foundation Training Courses for the Government officials of Bangladesh. The participants are given ICT training as a small part of the foundation training course. In this context, an attempt has been taken to assess the ICT skill of government officials.

Literature Review

This section attempts to present a summary of available studies so far conducted on ICT skill assessment in Bangladesh and other countries.

Md Arman Hossain et. al. conducted a study on the ICT Skills of Library and Information Science (LIS) Students in Bangladesh in the year 2019. The findings indicate that students' self-estimated overall computer and internet skills are good.

In 2018, Meri-Tuulia Kaarakainen et al. published a study titled "Performance-based assessment for assessing ICT skills: a case study of students' and instructors' ICT skills in Finnish schools." Information on differences and digital divides is provided by the research findings.

The Informatization of Society through Openness Movement in Higher Education in 2022: Role of University Faculty Members' ICT Skills was studied by Manjunath Kamath et al. The purpose of this essay is to highlight the relevance and significance of Information and Communication Technology (ICT) skills for the University Faculty community and individuals in educational institutions and universities, and how they can play a significant role in a radical transformation of the learning process.

The moderating effect of ICT skills on the relationship between HRM practices and teacher educator development in Bangladesh was the focus

of a 2017 study by Md Motaharul Islam et al. The goal of the study is to investigate how IT expertise affects the relationship between Bangladeshi teacher-educator development and HRM practices.

Research Gap

The review of the literature indicates that there is no significant study regarding the ICT skills assessment: a case study of the foundation training course of BARD. There is nevertheless, a knowledge gap in this area. Therefore, a clear-cut vision is needed to draw a conclusion regarding ICT skill assessment. In this perspective, some questions arise regarding (a) what is the role of BARD in the development of the participants through ICT skills. (b) How BARD has been working on it? And (c) what will be the future directions in this regard? The study has sought the answers to these questions in a systematic way through which a clear-cut scenario has been explored. Moreover, the topic is important since it is impossible to achieve Digital Bangladesh without ICT skills.

Objectives of the Study

The general objective of the study was to analyze the need assessment skill of the participants of the Foundation and Special Foundation Course.

The specific objective was to analyze the need assessment and to develop skills through ICT training.

Research Methodology

This study was carried out on government officials from different Foundation Training Courses of BARD, above the age group of 18 consisting of a variant demographic background. The respondents in this study were Physicians, Engineers, Education Cadre, Admin Cadre, and other cadre

officials, etc. A need assessment survey on ICT skills has been recently included as the first content of the ICT training schedule for identifying the skill of the participants. A total of 272 respondents were finally included in the study from three Foundation Training courses and three Special Foundation Courses using a purposive sampling technique. In this regard, the Google form questionnaire was circulated online to the participants through email and Facebook, Messenger, and data were collected and recorded. Of the studied sample, 57 (21%) were females, and 215 (79%) were males from the six Foundation Courses of BARD. The Foundation Training Courses are:

- 68th Foundation Training Course for all cadre officials
- 72nd Foundation Training Course for all cadre officials
- 152nd Special Foundation Training Course for LGED engineers
- 153rd Special Foundation Training Course for BCS (Health) cadre officials
- 154th Special Foundation Training Course for BCS (Health) cadre officials
- 174th Foundation Training Course for BCS (General Education) cadre officers

Analysis and Discussion

The socio-demographic profile of the study participants along with the length of services and ICT training is depicted in tables 1, and 2.

Table-1. Frequency distribution of Occupational Status of the Respondent (n=272)

Designation	Number of Respondents	Percentage (%)
AEO (Agriculture Extension Officer)	22	8
Assistant Superintendent of Police	10	4
Assistant Commissioner	42	15
Assistant Engineer/Engineer	60	22
Information Officer	1	0
Upazila Fisheries Officer	5	2
Veterinary Surgeon	3	1
Lecturer	49	18%
Medical Officer	59	22%
Asst. Accountant General	3	1%
Asst. Controller of News	1	0%
Asst. Director	5	2%
Asst. Secretary	10	4%
Upazila family Planning Officer	2	1%

**Source: primary data gathered in 2022 from an online survey*

Table 1 shows the respondents' employment status. The analysis revealed that medical officers and LGED engineers made up the majority of the 60

responders (22%). Asst. Controller of News and Information Officers made up the minority of responders.

Table-2. Frequency Distribution of the Respondent's Length of Service, ICT/e-Governance Training or Degree and Gender (n=272)

Variable type	Background Characteristics	Frequency	Percentage
Length of Service			
	Up to 15 Years	207	76%
	16-20	3	1%
	21-25	4	1%
	26+	58	21%
ICT/e-Governance Training or Degree			
	Less than 1 Month	102	38%
	1-3 M.	14	5%
	4-6 M.	9	3%
	Diploma	2	1%
	Bachelor Degree(ICT)	2	1%
	Masters/M. Phil(ICT)	4	1%
	None	139	51%
Gender			
	Male	215	79%
	Female	57	21%

*Source: Primary data collected through questionnaire, 2022

Table 2 shows the respondents' gender, ICT/e-Governance training or degree, and service experience. According to the study, 207 of the respondents (or 76%) have experience of up to 15 years. The majority of respondents had less than 25 years of experience. The study revealed that 139 out of 139 respondents (51%) lacked any IT

training. A small percentage of respondents held ICT diploma, bachelor's, and master's degrees. The participant gender is also shown in the table, with 215 (or 79%) responders being men. This figure is around 58% greater than the female equivalent, which was 57 (21%). This finding demonstrates the importance of the man in the investigation.

Table-3. Frequency Distribution of Respondents' Individual Computer at office (n=272)

Variable type	Number of Respondents	Percentage (%)
Yes	209	77
No	63	23

*Source: primary data gathered in 2022 from an online survey

The respondent's personal computer status at work is shown in Table 3. According to the study, 209 respondents (or 77%) have their own personal

computer in their place of work, which is a very positive result. The minority of respondents, 63 (23%) do not use a computer at work.

Table-4. Frequency Distribution of Respondents' Computer Networked with (Internet/Lan/Wan) (n=272)

Variable type	Number of Respondents	Percentage (%)
Internet	239	88
Connected with other Sections/dept.	7	3
Not Networked	20	7
Others	6	2

**Source: primary data gathered in 2022 from an online survey*

The network and connectivity status at the workplace are shown in Table 4. A very positive conclusion of the study was that the majority of the 239 respondents (88%) believed they had internet

connectivity at their place of employment. A small percentage of respondents claimed that there are additional sections where the network is accessible.

Table-5 Frequency Result of the Respondents' knowledge of Configuration of the IP address in Computer (n=272)

Variable type	Frequency	Percentage (%)
Yes	154	57
No	118	43

**Source: primary data gathered in 2022 from an online survey*

The level of the respondent's knowledge regarding the IP address configuration on their machine is shown in Table 5 of the results. According to the study, 154 out of the respondents (57%) are

knowledgeable about configuring IP addresses. The remaining 118 respondents (or 43% of the total) are unable to set their computer's IP address.

Table 6: Frequency Result of the Respondents' Official E-mail Account (n=272)

Item	Level	Frequency	Percentage
Have an official E-mail Account			
	Yes	160	59
	No	112	41
Use e-mail for Official Correspondence			
	Yes	250	92
	No	21	8
Can use a signature in the email			
	Yes	139	49
	No	133	100

**Source: primary data gathered in 2022 from an online survey*

The current status of the official email account at work is shown in Table 7. According to the survey, the majority of the 239 respondents (88%) claimed to have internet access at their place of

employment, which is another excellent study finding. A small percentage of respondents claimed that there are additional sections where the network is accessible.

Table-7. Frequency Distribution of the Respondents' knowledge about setting up Windows (n=272)

Variable type	Frequency	Percentage (%)
Yes	189	69
No	83	31

**Source: primary data gathered in 2022 from an online survey*

The knowledge of installing Windows on a PC is shown in Table 8 as a status indicator. The poll discovered that 189 respondents (or 69%) felt they were knowledgeable about how to install Windows

on a computer. A small percentage of the respondents, 83 (31%), admitted they were unaware of how to install Windows on a computer.

Table-8. Frequency Distribution of the Respondents' knowledge about Corrupted HDD/SSD (n=272)

Variable type	Frequency	Percentage (%)
Yes	148	54
No	124	46

**Source: primary data gathered in 2022 from an online survey*

The knowledge of formatting faulty HDD/SSDs is shown in Table 9 as a status indicator. The study revealed that 148 respondents, or 54% of them, said they were familiar with how to format faulty HDDs

and SSDs. 124 respondents, or 46%, said they lacked the knowledge necessary to format corrupted HDDs or SSDs.

Table-9: Frequency Level of backup work to pen drive/ Mobile/HDD/ Could Platform etc.

Level	Frequency	Percentage (%)
No (1)	34	13
Little (2)	29	11
Moderate (3)	68	25
Very Good (4)	57	21
Excellent (5)	84	31

**Source: primary data gathered in 2022 from an online survey*

The present level of ability to backup work to a pen drive, mobile device, HDD, could platform, etc. is shown in Table 10. The majority of respondents, 84 (31%), have great or very good ability to back up

work to pen drive, mobile, HDD, or could Platform, according to the study. 34 respondents, or 13%, were in the minority and said they couldn't find job.

Table 10: Frequency level of different ICT applications (n=272)

Item	Variable type	Frequency	Percentage
Can Install anti-Virus			
	Yes	220	81
	No	52	19
Can scan an Image/text.			
	Yes	243	89
	No	29	11
Can solve the hardware problem of the Computer			
	Yes	61	22
	No	211	78

*Source: primary data gathered in 2022 from an online survey

The present state of various ICT tool applications is shown in Table 11. According to the study, 220 respondents (81%) can install anti-virus software

on their PC, 243 respondents (89%) can scan photos or text, and 61 respondents (22%) are unable to fix a hardware issue with their computer.

Table 11: Frequency level of different ICT applications (n=272)

Item	Level	Frequency	Percentage
Troubleshooting of Computer			
	No (1)	64	24
	Little (2)	76	28
	Moderate (3)	78	29
	Very Good (4)	32	12
	Excellent (5)	22	8
Adding numbers and bullets			
	No (1)	35	13
	Little (2)	23	8
	Moderate (3)	57	21
	Very Good (4)	52	19
	Excellent (5)	105	39
Know about multi- level numbering			
	No (1)	65	24
	Little (2)	43	16
	Moderate (3)	53	19
	Very Good (4)	47	17
	Excellent (5)	64	24

set headers and footers			
	No (1)	49	18
	Little (2)	33	12
	Moderate (3)	53	19
	Very Good (4)	54	20
	Excellent (5)	83	31
Can make a bulleted List			
	No (1)	57	21
	Little (2)	42	15
	Moderate (3)	58	21
	Very Good (4)	48	18
	Excellent (5)	67	25

**Source: primary data gathered in 2022 from an online survey*

The respondents (Table 11) were asked whether they know to troubleshoot, add numbers and bullets, add multi-level numbering, set headers and footers, and can make a bulleted list. Regarding troubleshooting, it is revealed from the study that the majority of the respondents 78 (29%) have a moderate level of ability for troubleshooting. The minority of the respondents 22 (8%) have excellent knowledge of ability.

The majority of the 105 respondents (39%) had an exceptional level of proficiency when it comes to adding numbers and bullets, according to the study. In addition to a sizeable percentage of respondents, 57 (21%), have moderate expertise, and 35 (13%) are unable to add numbers and bullets.

The majority of the 65 respondents (24%) don't

know what multi-level numbering is, according to the findings. 43 respondents, a minority, just know a little bit (16%) about multi-level numbering in Microsoft Word programs.

The majority of the 83 respondents (31%) were able to set headers and footers, according to the research. In addition to a sizeable percentage of respondents, 57 (21%), have moderate expertise, and 35 (13%) are unable to add numbers and bullets.

It was discovered that the majority of respondents—67, or 25%—can create bulleted lists, which is another encouraging study conclusion. 42 respondents, or 15%, were in the minority when it comes to their familiarity with creating bulleted lists in Microsoft Word.

Table-12: Frequency level of different ICT applications (n=272)

Item	Level	Frequency	Percentage
Can Insert table			
	No (1)	31	11
	Little (2)	19	7
	Moderate (3)	44	16
	Very Good (4)	67	25
	Excellent (5)	111	41
Know how to create a table of contents			
	No (1)	33	12
	Little (2)	37	14
	Moderate (3)	59	22
	Very Good (4)	62	23
	Excellent (5)	81	33
Can enter text and numeric data in cells			
	No (1)	50	18
	Little (2)	41	15
	Moderate (3)	47	17
	Very Good (4)	63	23
	Excellent (5)	71	26

**Source: primary data gathered in 2022 from an online survey*

In order to determine whether the respondents could insert a table, generate a table of contents, and enter text and numeric data into cells, questions were posed to them (Table 12). The majority of the 111 respondents (41%) to the study have outstanding levels of aptitude for making tables, according to the findings. Just 11 percent of the respondents, or 31 people, are unable to create a table.

The majority of respondents, or 81 (33%) had outstanding levels of competence for developing a

table of contents, it was discovered. A table of contents in the Microsoft Word program is a skill that 33 respondents, or 13%, lack.

The majority of the 71 respondents (26%) have high levels of skill for entering text and numeric data in cells, according to the results of the study. Only 41 of the respondents (15%) are unfamiliar with how to enter text and numeric data into cells in Microsoft Word programs.

Table-13. Frequency Level of producing chart from the data (n=272)

Item	Level	Frequency	Percentage
Can produce a chart from the data			
	No (1)	59	22
	Little (2)	40	15
	Moderate (3)	62	23
	Very Good (4)	46	16
	Excellent (5)	65	24
Can produce combination chart from multiple data			
	No (1)	90	33
	Little (2)	55	20
	Moderate (3)	66	24
	Very Good (4)	33	12
	Excellent (5)	28	10
Can Create an Organizational Chart			
	No (1)	72	26
	Little (2)	51	19
	Moderate (3)	68	25
	Very Good (4)	39	14
	Excellent (5)	42	15
Can edit a chart			
	No (1)	62	23
	Little (2)	46	17
	Moderate (3)	61	22
	Very Good (4)	46	17
	Excellent (5)	57	21

**Source: primary data gathered in 2022 from an online survey*

The present level of skill in relation to several ICT tool charts is shown in Table 13. According to the research, the majority of respondents 65 (24%) can create a chart from the data, while the minority of respondents 40 (15%) are unable to do so. It is also revealed that the bulk of respondents, 90 (33%) are unable to create combination charts from several data sets, while only the minority, 28 (10%) are

extremely proficient in this area. Aside from that, just 39 respondents (or 14% of the total) have very excellent proficiency in producing organizational charts, whereas 72 respondents (or 26% of the total) cannot. Also, 61 (22%) of the respondents have a moderate degree of capacity to alter a chart, while 46 (17%) of the respondents have a little and very good level of skill.

Table-14. Frequency Level of creating PowerPoint Presentation (n=272)

Item	Level	Frequency	Percentage
Can create a new Presentation			
	No (1)	32	12
	Little (2)	25	9
	Moderate (3)	61	22
	Very Good (4)	62	23
	Excellent (5)	92	34
Can make a Master Slide in PowerPoint Presentation.			
	No (1)	54	20
	Little (2)	38	14
	Moderate (3)	70	26
	Very Good (4)	56	21
	Excellent (5)	54	20
Can Make PowerPoint as the web portal			
	No (1)	118	43
	Little (2)	59	22
	Moderate (3)	50	18
	Very Good (4)	31	11
	Excellent (5)	14	5

**Source: primary data gathered in 2022 from an internet survey*

The study sought to identify these skills (Table 14). According to the study, the majority of respondents—92 (34%)—create new Presentations, while the minority—25 (9%)—have only a limited level of skill in this area. The majority of respondents, 70 (26%) have a moderate

degree of PowerPoint master slide creation skill, while the minority, 38 (14%) have a low level of skill. The majority of respondents, 118 (43%) do not have the skills necessary to organize PowerPoint as a web portal, while just 31 (11%) of the respondents have very good skills in this area.

Table-15. The frequency level of Bangla and English Typing (n=272)

Item	Level	Frequency	Percentage
Can change the keyboard Layout (English to Bangla)			
	Yes	254	93
	No	18	7
Know Bangla Typing			
	Yes	249	92
	No	23	8
Can type Bangla and English in a file			
	Yes	258	95
	No	14	5

Present Level of Blind Typing: Bangla			
	No (1)	77	28
	Little (2)	69	25
	Moderate (3)	71	26
	Very Good (4)	29	11
	Excellent (5)	26	10
Present Level of Blind Typing: English			
	No (1)	23	8
	Little (2)	75	28
	Moderate (3)	84	31
	Very Good (4)	61	22
	Excellent (5)	29	11

**Source: primary data gathered in 2022 from an online survey*

Typing skills, especially Bangla typing is very much essential and most government portals are made up of Bangla content. It is found from the study (Table 15) that the majority of the respondents 249 (92%) know Bangla Typing but in

the case of blind typing majority of the respondents 77 (28%) mentioned that they don't know blind typing. Besides in the case of blind typing in English, the majority of the respondents 84 (31%) have a moderate level of ability in blind typing.

Table-16. Frequency Result of managing LAN and WAN (n=272)

Item	Level	Frequency	Percentage
Can differentiate LAN and WAN			
	Yes	176	65
	No	96	35
Can differentiate WIFI, WIMAX, and Bluetooth			
	Yes	236	87
	No	36	13
Can share files through LAN			
	Yes	182	67
	No	90	33

**Source: primary data gathered in 2022 from an online survey*

The status of networking abilities is displayed in Table 16. They have proven to have excellent networking knowledge. The survey found that 176 (65%) of the participants could tell the difference between a LAN and a WAN. Moreover, most

survey participants can tell the difference between WIFI, WIMAX, and Bluetooth, with 236 (87%) respondents being able to do so. 182 (67%) of the respondents could transfer files using LAN, which is the majority in the case of file sharing.

Table-17. Frequency Distribution of using remote desktop software (n=272)

Variable type	Number of Respondents	Percentage (%)
Yes	134	49
No	138	51

**Source: primary data gathered in 2022 from an online survey*

The use of remote desktop software is depicted in Table 17 in its current state. We questioned the respondents about their familiarity with installing and utilizing remote desktop software. The

analysis reveals that these applications have some shortcomings. It was discovered that 138 out of 272 respondents, or 51%, didn't know how to set up and use remote desktop software.

Table-18. Frequency Level of managing e-files (n=272)

Level	Number of Respondents	Percentage (%)
No (1)	70	26
Little (2)	56	21
Moderate (3)	70	26
Very Good (4)	42	15
Excellent (5)	34	13

**Source: primary data gathered in 2022 from an online survey*

The majority of the governments in Bangladesh started using e-Files (e nothi) to ensure the convenience of their inhabitants by facilitating the speedier flow of files and papers, enhancing service delivery, and assuring accountability. Yet, it can be seen from table (19) above that there is a serious shortage of expertise with electronic data.

According to the study, 70 (26%) of the respondents had a low degree of understanding of the e-filing system while 70 (26%) have a moderate level of expertise. Aside from the minority of respondents, 34 (13%) have only a basic understanding of handling e-Files.

Table-19. Frequency Level of managing meetings through Facebook live using stream Yard or any other APPS (n=272)

Item	Level	Frequency	Percentage
Can manage meetings through Facebook live using stream Yard or any other APPS			
	Yes	199	73
	No	73	27
Can Organize an online conference or meeting using Zoom Meet			
	No(1)	44	16
	Little (2)	42	15
	Moderate (3)	80	29
	Very Good (4)	62	23
	Excellent (5)	44	16

**Source: primary data gathered in 2022 from an online survey*

In the COVID pandemic condition, online meetings, one of the fundamental ICT applications, are quite helpful. The majority of government and non-governmental organizations have online meetings for a variety of reasons following COVID. The status and maturity of organizing

online meetings are shown in the above table. According to the study, the vast majority of respondents—199, or 73%—of the 272 total—can manage meetings using Stream Yard on Facebook live. Yet, they are incompetent at setting up online meetings with Meet and Zoom.

Table-20. Frequency Level of developing online Questionnaires (n=272)

Level	Number of Respondents	Percentage (%)
No (1)	75	28
Little (2)	66	24
Moderate (3)	69	25
Very Good (4)	34	13
Excellent (5)	28	10

**Source: primary data gathered in 2022 from an online survey*

Most studies after COVID acquire data through online questionnaires or survey forms. The study's findings (Table 20) reveal that the vast majority of the 75 respondents (28%) lack knowledge about how to create online questionnaires. Other than the

minority of respondents, who make up only 28 (10%), who have really good skills in creating online questionnaires? Therefore, it was revealed that government employees also require extensive training in these applications.

Table-21. Frequency Level of basic of e-Governance (n=272)

Item	Level	Frequency	Percentage
Idea of the basic of e-Governance			
	Yes	244	90
	No	28	10
Know the difference between e-Governance & e-Government			
	No(1)	28	10
	Little (2)	63	23
	Moderate(3)	86	32
	Very Good(4)	59	22
	Excellent(5)	36	13

**Source: primary data gathered in 2022 from an online survey*

The current state of e-Government is depicted in Table 21. It was discovered that 244 respondents, or 90%, had a general understanding of e-governance but were unaware of the distinction between e-government and e-governance. In addition, the majority of respondents, 86 (32%),

have a fair amount of knowledge of e-government and e-governance. 28 respondents (10%), who make up the minority, are unaware of the basics of e-government and do not understand the subtle differences between e-government and e-government.

Table-22. Frequency Level of Idea about the digital divide (n=272)

Level	Frequency	Percentage (%)
No (1)	82	30
Little (2)	61	22
Moderate (3)	71	26
Very Good (4)	37	14
Excellent (5)	22	8

**Source: primary data gathered in 2022 from an online survey*

Table 22 presents the respondents' perspectives on the digital divide. Pertaining to this tool. According to the study, 28 percent of the 75 respondents don't know how to create online questionnaires. In

addition, just 28 respondents, or 10% of the total, have outstanding skills for creating online questionnaires.

Table-23. The frequency level of Cyber Law (n=272)

Item	Level	Frequency	Percentage
Know about Cyber Law			
	Yes	186	68
	No	86	32
Can manage ICT works as per ICT Policy 2018.			
	Yes	101	37
	No	171	63

**Source: primary data gathered in 2022 from an online survey*

The respondent's opinions on cyber law and policy are depicted in Table 23. The poll reveals that 186 respondents, or 68 percent, are knowledgeable about cyber law. Yet, 171 of the respondents (63%) were unable to manage IT tasks in accordance with the ICT Policy 2018.

Conclusion

The present government has initiated numerous projects to transform Bangladesh into a Smart Bangladesh. Thus, officials need to increase their ICT skills. To become a digital or smart Bangladesh, there is no other option besides ICT. In this regard, government representatives can be quite important. They can be prepared to serve the nation by receiving advanced ICT skill training in line with the goal of a smart Bangladesh.

Research Findings

According to the study's findings, respondents had strong ICT skills on average, although they lacked several ICT tools. Most of the attendees are familiar with the basics of IT. In some situations, such as typing, setting up online meetings, creating an online questionnaire, using Microsoft Office programs, networking, and e-Nothi, they lack the necessary skills to carry out their professional duties effectively. According to the study's findings among the respondents, doctors are less proficient in ICT than other government employees. The majority of participants lack knowledge of ICT policy and are unable to handle ICT work in accordance with policy. Most interviewees indicated that they needed more ICT training. BARD has an optimistic role in improving the ICT

skill of the participants. However, the question has come regarding the role of BARD in this regard. The study also critically analyzed this question based on the need assessment.

Recommendations

The results of the study led to the following specific recommendations:

- For increasing the ICT skill of the participants of the Foundation Training Courses BARD has a wider scope. Therefore, BARD should organize advanced and refresher ICT training exclusively for the participants with the approval of the sponsoring agency. Like BARD another institute can also organize an ICT course exclusively for its participants.
- Participants highly ranked the basic ICT tools. Hence ICT training should be arranged by clustering the participant's level of ICT. In that case, advanced training should be arranged for the advanced learners separately.
- ICT manpower can be increased to train the FTC participants. Because there is a lack of ICT-skilled manpower in the academy. BARD conducts lots of training courses around the year thus sometimes it is difficult to train the participants or to organize quality training. In this regard, an ICT cell can be established in the academy.
- Government can take initiative in organizing different ICT training for Government officials by enhancing the ICT manpower as well as the ICT infrastructure of the training institutes.
- ICT content should be updated in National Training Curricula (NTC) and the duration of ICT training should be increased. Some topics like freelancing, organizing online meetings,

developing the online questionnaire, advanced MS office applications, networking, SEO, e-Commerce, and 4IR should be included in the training schedule.

Scope of Future Work

The ministry and organization in question will be given access to this paper and the facts we've gathered. The study's findings increase our knowledge of the subject, which will be useful to academics and policymakers who are working on this issue.

Limitations:

BARD conducts many Foundation Training Courses every year. The study has included only six Foundation Courses, in which need assessment survey was included. Thus it was not possible to draw the overall ICT status of all FTC conducted by BARD. The current study can change the ICT training scenario of the academy to improve ICT skills in the upcoming FTC.

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