

**A COMPARATIVE STUDY ON STUDENTS' LEVEL OF
ACCEPTANCE AND PREFERENCE OF CONVENTIONAL AND
VIRTUAL MODE AT "GAUSUL AZAM MAIZBHANDERI
MEDHA-BRITTHI (SCHOLARSHIP EXAM) PROGRAM IN
FATIKCHARI, BANGLADESH**

Md. Rabiul Hossen

Lecturer

Department of English

Nanupur Laila Kabir University College, Bangladesh

Associate Member

Darul Irfan Research Institute (DIRI), Bangladesh

E-mail: tasauf.darulirfan@gmail.com

Shahjada Syed Irfanul Hoque

Managing Trustee

Darul Irfan Research Institute (DIRI), Bangladesh

Nayeb Sajjadah Nasheen

Maizbhandar Darbar sharif, Fatikchari, Chittagong, Bangladesh

E-mail: tasauf.darulirfan@gmail.com

Prof. Dr Asif Mahbub Karim

FCGIA, Dean

Binary Post Graduate School

Binary University of Management and Entrepreneurship, Malaysia

E-mail: drasifmkarim@gmail.com

Dina Arjumand

Student

Department of "Urban & Regional Planning"

Chittagong University of Engineering & Technology

Associate Member

Darul Irfan Research Institute (DIRI), Bangladesh

E-mail: tasauf.darulirfan@gmail.com

ABSTRACT

The students associated with the educational sector are facing a restructuring educational system for being pushed out of school by the elongated countrywide new-normal situation during COVID-19. In this pandemic situation, the virtual mode is welcome in the absence of a face-to-face conventional mode of examination. So, participants' satisfaction, acceptance, and preference of exam mode need to be focused on. This paper addresses the determinants of

satisfaction, acceptance, and preference among the students of the Medha-Britthi examination. Data has been collected through a Telephone questionnaire survey from the participants of the school level of Bangladesh at the Maizbhanderi Medha-Britthi (scholarship) examination. The data has been analyzed using SPSS according to their responses on their satisfaction, acceptance & preference of examination mode for the future. The result shows that according to their level of satisfaction, examinee communication, time & cost-effectiveness, and ICT effectiveness, most of the students have preferred the online examination mode for the future. Few students have preferred conventional methods for a lack of digital devices, ICT efficacy, or lack of interest. This study also will take appropriate measures to overcome the barriers faced by the participants so that the preferable mode can be continued in the future.

Keywords: Level of Acceptance and Preference, Medha-Britti Scholarship Program, Conventional Mode, Virtual Mode, Digital Device.

INTRODUCTION

With an event like the COVID-19 crossing borders in an increasingly mobile world, the efforts in education may be challenged in other ways (Masuhay, 2020). The use of online learning attracted the attention of all educational contexts, particularly when the government of all countries closed schools and universities due to COVID-19 (Himat, 2021). In this situation, students have to depend on the online method to perform their examinations including non-formal examinations. As online exams become an important assessment method in online learning, it is essential to analyze learners' perceptions (Adanir et al., 2020). It is emergent to focus on the preference of participants on examination methods according to their level of satisfaction and interest. Students' interests and engagement are not the same in both physical and virtual modes of co-curricular activities such as exam participation. These depend on many socio-economic and demographic factors as well as efficacy and perceived usefulness. Online courses make possible new forms of working and learning together that would be difficult or impossible to use in the classroom-based course (Shen et al., 2004). The virtual method can ensure the participation of students from the whole country because students can perform the examination staying at home. Students who have a proper internet connection and required digital devices feel comfortable, interested, and attracted. Bangladesh is one of the low-mid income bracketed countries of the world where meeting up of basic needs for the mass people is still the major challenge. So it has been very challenging for some students in rural areas of Bangladesh as a developing country to get internet facilities for their financial status.

They are facing a lack of electronic devices such as smartphones, laptops, and required an internet connection to perform the online examination. That's why they are lagging behind the examination which they used to perform regularly before the new-normal situation. But if the required internet facilities and the digital device can be ensured for those students, then it will be possible for those students to continue with the online process. The preferred exam mode should be continued in the future. Students' level of satisfaction and acceptance in the online examination and conventional examination can clear about the preference of the method. Based on their satisfaction and acceptance, one of the two methods should be chosen to be continued for the future.

The objectives of the paper are:

- To make a comparative study on the conventional and virtual process of examination according to participants' satisfaction and acceptance.

- To analyze comparatively the preferable mode of exams of participants' interest, comfort, convenience.
- To take appropriate measures to overcome the barriers faced by the participants so that the preferable mode can be continued in the future.

This paper will be beneficial for finding out an examination mode for the future according to participants' level of satisfaction and acceptance. The study will help find out the barriers of participants while applying virtual mode. It will also be beneficial for taking measures to overcome the problems faced by participants and to continue with the virtual mode in the future.

Problem Statement

Gaushul Azam Maizbhandari Medha Britti (Non-formal Scholarship Exam) organized by "Maizbhandari Foundation" which is situated in Fatikchari, Chittagong, Bangladesh. Maizbhandari Foundation has successfully arranged its scholarship exam since 2013 through the conventional method by using written mode. In the conventional method, the number of participants was about one thousand where all of the participants used to attend paper mode exams which remark as the face-to-face way or physical way. This year, the world is facing a pandemic with a new normal situation. Corona Pandemic attacked Bangladesh on 08th March 2020 (Sarker, 2020). According to this situation, Maizbhandari Foundation also has taken a step for scholarship exams through virtual mode. So it developed a new model for its regular exam by using an electronic paper mode exam through a multiple choice question system.

Research Questions

- Which mode of examination is more satisfactory according to participants' comfort, easiness & interest?
- Which mode is less-expensive and less-time consuming for the students?
- Can Virtual mode make the interest of using digital technology or encourage students to their study?
- Which mode is easier for the students to communicate with the examiner or follow their instructions?
- Which method is preferable for the future according to participants' opinions?
- Is there any positive correlation of the level of preference for the future with other variables?

LITERATURE REVIEW

E-Examination

Electronic Based Examination or E-Exam has become very useful, convenient, and popular by the proper implication of ICT (Information & Communication Technology). As a form of assessment, evaluation, and feedback, online exams play an important role in online learning (Adanir et al., 2020). Online exams bring advantages such as test security, safe data storage, immediate exam results, cost-effectiveness, saving paper and time, and automated record-keeping for learners, instructors, and institutions (Ilgaz & Afacan Adanır, 2020)

Level of Satisfaction and Preference of Examination Mode

Learners' opinions are very important in the decision-making process before initiating online exams (Ilgaz & Afacan Adanır, 2020). Evaluating the level of acceptance in online examination

compared to conventional method is important in this new-normal situation during the era of ICT.

According to another paper, the survey From the study of Nardi and Ranieri (2019), most of the students have given positive feedback to the computer-based exam (E-exam) compared to the paper-based exam while only around 4 % have a bad experience. In this study, it has been found that 76.34% of participants declared their preference for Computer Based Test (E-exam) in all final examinations, while 23.65% want to keep Paper Based Test.

According to the research of Candrljic, Katic, and Dlab (2014), 1231 paper-based and online tests were conducted to compare the preference of students in the paper-based exam and online exam. According to the comments of the students, most of them prefer the keyboard rather than a pencil so they would rather take online tests rather than paper-based tests. From the study of Shen *et al.*, (2004), about 58% of participants recommend using the online exam for the future, 30 % of students are neutral and the rest of them recommend the traditional one based on their level of perception, acceptance, and satisfaction.

ICT Efficacy

The impact of the Internet on education is an important issue that has caught educators' attention in recent years (Abubakar, 2019). The ICT provides a great development opportunity by contributing to information dissemination, providing an array of communication capabilities, increasing access to technology and knowledge among others (Darma et al., 2018).

METHODOLOGY

Participants: The participants are both male and female who are the regular students of our medha-britti scholarship program of school level who aged from 10 to 16.

Table 1. Participants according to Gender and Age

Gender	Age in year				Total participants	
	10-11	12-13	14-15	16-17	F	(%)
Male	29	39	42	34	144	51.7%
Female	32	38	31	33	134	48.20%
Total	61	77	73	67	278	100%

Sampling Procedure: By using the "Sample size calculator", we have got the sample size for the paper is 278 based on our population size 1000 with the confidence level of 95%.

Data Collection: Data has been collected from the regular participants who have experiences of both examination modes. A telephone questionnaire survey was conducted using 5 points Likert scale data as 5-strongly agree to 1-strongly disagree. The sample size was 278 as the population size is 1000.

The Procedure of Data Analysis: Data has been analyzed using SPSS (Statistical Package for the Social Sciences) according to participant's responses about the statements in the questionnaire. Students' perception has been shown by using charts and relevant tables using Microsoft Excel 2019. And charts about correlation have made using SPSS. Cronbach alpha has done for checking the reliability among the statements in the questionnaire. Spearman rank

correlation has been conducted for checking the correlation of students’ preference for exam mode with other variables that are related to their experience while conducting the examination.

The scale of the Questionnaire: The questionnaire was designed by following a 5-point Likert scale to know the opinion about their perception of virtual mode compared to the conventional examination system.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

RESULTS

Reliability Test

Cronbach alpha method has been used for checking the reliability among the statements in the questionnaire which is a measure of internal consistency. The co-efficient value of Cronbach alpha has been found 0.91 which is considered very strong reliability among the statements in the questionnaire.

Participants’ Perception of Examination Modes: For evaluating their opinion, the responses of the participants are analyzed by determining some variables like their level of satisfaction and acceptance, easiness of examinee communication, saving of time and money, and perceived usefulness of virtual examination compared to conventional examination.

Table 2. Percentage of participants’ response about their perception of examination modes

Variables	Statement	5	4	3	2	1
		Agree		Neutral	Disagree	
Level of satisfaction & acceptance	The virtual model is more comfortable than the conventional model.	78 %		8.9 %		12.94 %
	The virtual model is easier than the conventional for me.	77.33 %		9.72%		12.94%
	I was able to give full concentration more easily in the virtual mode than the conventional model.	74.4%		10.4%		15.1%
	I felt more interested in the virtual model rather than the conventional model.	76.2%		8.9%		14.7%
	The virtual mode seems less-tiring compared to the conventional model to me.	78.7%		8.9%		12.23%
Students' communication with the examinee	Instructions of the examination were more easy & clear in virtual mode compared to conventional mode.	80.21%		11.5%		8.27%
	Examiner was more helpful and co-operative with me in the virtual mode compared to the conventional model.	80.21%		11.5%		8.27%
	Virtual mode is less expensive and saves	88.12%		8.9%		2.87%

Time & cost effectiveness	travel costs.			
	Virtual mode is less time consuming compared to conventional mode	89.92%	3.59%	6.47%
Perceived usefulness	Virtual mode encourages you to use ICT/Digital Technology for your study.	78%	8.27%	13.67%
	The virtual model has increased the eagerness for regular examination.	79.8 %	12.2%	7.91%

Table 1 shows that the highest number of students is highly satisfied with the online examination and for having more comfort, easiness, interest in online examination compared to the conventional method. According to the response of the students, they have found a better communication and helpful response from the examinee in the online examination compared to conventional examination. In the same way, the examinee can provide sufficient information easily to the students in the virtual examination method. Most of the students as mentioned before think that online examination is less-expensive & less-time consuming. Because they can consume travel time and money by conducting the examination staying at home with relax mode. According to their opinion, the virtual model of examination can encourage them to use the ICT/ digital technology which is very important for the new era of technology.

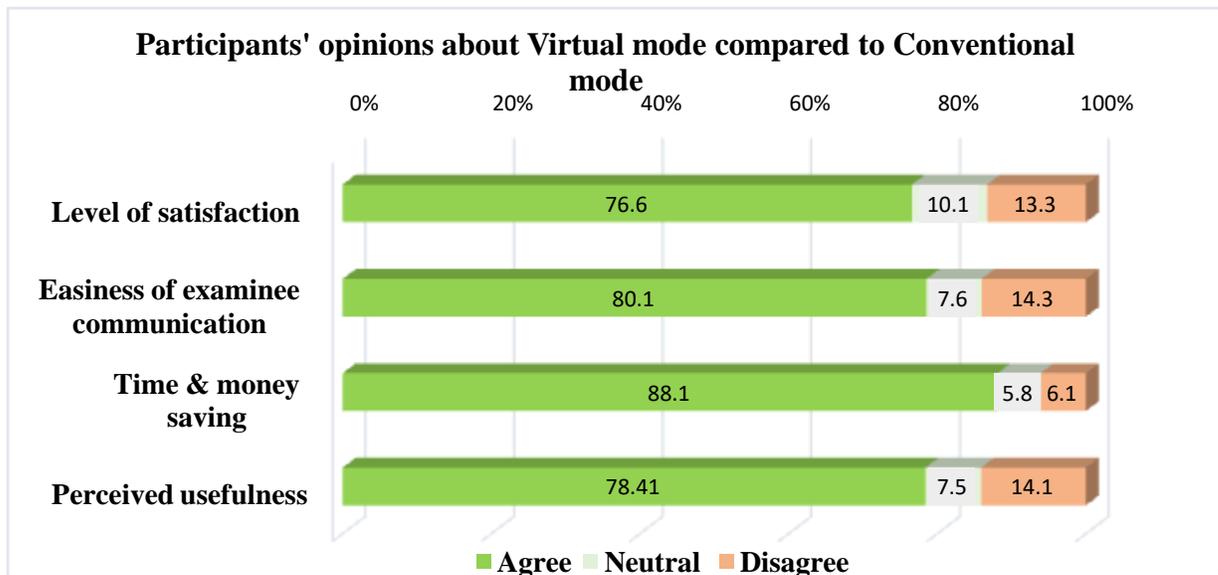


Figure1. Participants’ overall opinion about virtual mode compared to conventional exam mode

This figure is presenting the mean of variables on overall responses about virtual mode compared to conventional mode. About 76.6 % of the participants are more satisfied in virtual mode, 80.1 % students think that they can make better communication while conduction online examination, 88.1 % students can easily save their travel cost and time conduction online examination instead of conventional examination mode and 78.41 % students get perceived usefulness in the online examination.

Level of Preference according To Participant’s Responses

Level of preference means the overall opinion of the participants about the choice of examination mode for the future. According to the level of satisfaction, acceptance, examinee communication, time & cost-saving, and ICT effectiveness, the students can prefer the examination mode for future examination.

Table 3. Level of preference of examination mode for the future

Variable	Statement	Responses			Preference of Exam mode	
		Scale	F	(%)		
Level of preference	I prefer virtual mode compared to conventional mode	5	Agree	215	77.34	Virtual mode
		4				
		3	Neutral	24	8.64	Neutral
		2	Disagree	39	14.02	Conventional mode
		1				

In light of the opinion of the students, it has been found that about 77 % of the students prefer Virtual mode, 14% conventional mode & 9% students said that they can prefer any of the two methods. So most of the students prefer online examinations for the future.

Spearman Rank Correlation

Spearman rank correlation has been done for justifying the co-relation of the level of preference with participants' level of satisfaction, easiness of examinee communication, time and money-saving and perceived usefulness.

Table 4. correlation between exam mode preference with the satisfaction level

Spearman’s rho correlation		Preference of exam mode	Level of satisfaction & acceptance
Preference of exam mode	Correlation coefficient	1	.770**
	Sig. (2-tailed)	.	0
	N	278	278
Level of satisfaction & acceptance	Correlation coefficient	.770**	1
	Sig. (2-tailed)	0	.
	N	278	278

From table 4, the preference of exam mode is strongly and positively correlated with the level of satisfaction and acceptance and the value of r is 0.770.

Table 5. correlation between exam mode preference with easiness of communication

Spearman’s rho correlation		Preference of exam mode	Easiness of communication with examinee
Preference of exam mode	Correlation coefficient	1	.805**

mode	Sig. (2-tailed)	.	0
	N	278	278
Easiness of communication with examinee	Correlation coefficient	.805**	1
	Sig. (2-tailed)	0	.
	N	278	278

From table 5, the preference of exam mode is strongly and positively correlated with the Easiness of examinee communication and the value of r is 0.805.

Table 6. Correlation between exam mode preferences with Time & Cost saving

Spearman’s rho correlation		Preference of exam mode	Time & Cost saving
Preference of exam mode	Correlation coefficient	1	.839**
	Sig. (2-tailed)	.	0
	N	278	278
Time & Cost saving	Correlation coefficient	.839**	1
	Sig. (2-tailed)	0	.
	N	278	278

From table 6, the preference of exam mode is strongly and positively correlated with the savings of time and money and the value of r is 0.839.

Table 7. Correlation between exam mode preference with perceived usefulness

Spearman’s rho correlation		Preference of exam mode	Perceived usefulness
Preference of exam mode	Correlation coefficient	1	.786**
	Sig. (2-tailed)	.	0
	N	278	278
Perceived usefulness	Correlation coefficient	.786**	1
	Sig. (2-tailed)	0	.
	N	278	278

From table 7, the correlation between exam mode preference and perceived usefulness is strongly positively correlated and the value of r is 0.786.

DISCUSSION

Last, of all, we can say, according to participants’ level of satisfaction and acceptance, easiness of communication of participants ‘with the examiner, saving of time and money, and having perceived usefulness, most of the students have preferred virtual mode compared to the conventional mode for the future. From Spearman rank correlation, it has been found that the level of preference for the future exam has a strong and positive correlation with the variables. If the student can prefer virtual mode for the future, a decision can be taken for arranging the examination in e-platform in the future.

Bangladesh is one of the low-mid income bracketed countries of the world where meeting up of basic needs for the mass people is still the major challenge.

Less number of participants doesn't prefer online exams for having a lack of ICT efficacy or financial problems. Following measures should be taken for them so that the most preferable mode can be continued for the future.

- The Students Who Have Poor ICT Knowledge Should Be Trained By Providing Soft Material Like A Tutorial, Online Training For Making Them Able To Conduct Virtual Examination System.
- And Those Who Have Financial Problems Should Be Provided Some Soft Loan To Buy The Digital Device.
- Awareness About Digital Technology And E-Platform Examination Should Be Increased Among The Students And Their Parents Also.

Then all the students will be able to conduct the online examination perfectly and conveniently. Because in the new-norm situation, e-platform is the best and only way to conduct the regular examination perfectly.

While conducting the research work, some limitations have been found in the survey. Though it was a telephone questionnaire survey, some students of the whole population didn't pick up the phone; some has cut the call which was a waste of time & energy. That's why we had called the participants which were more than our sample size for getting responses according to our exact sample size.

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APPENDICES

Appendix A: Questionnaire of Telephone Survey

Authors have designed a questionnaire for telephone using five variables named Level of satisfaction and acceptance, students' communication with the examiner, time and cost-effectiveness, perceived usefulness, and level of preference of exam mode. Under each variable, they asked the following statements. The questionnaire followed 5 points Likert scale from strongly agreed to strongly disagree with the statements.

Variables	Statements	Responses of participants				
		1	2	3	4	5
Level of satisfaction & acceptance	The virtual model is more comfortable than the conventional model.					
	The virtual model is easier than the conventional for me.					
	I was able to give full concentration more easily in the virtual mode than the conventional model.					
	I felt more interested in the virtual model rather than the conventional model.					
	The virtual mode seems less-tiring compared to the conventional model to me.					

Students' communication with the examiners	Instructions of the examination were more easy & clear in virtual mode compared to conventional mode.					
	Examiner was more helpful and co-operative with me in the virtual mode compared to the conventional model.					
Time & cost effectiveness	Virtual mode is less expansive and saves travel costs.					
	Virtual mode is less time consuming compared to conventional mode					
Perceived usefulness	Virtual mode encourages you to use ICT/Digital Technology for your study.					
	The virtual model has increased the eagerness for regular examination.					
Level of preference	I prefer virtual mode compared to conventional mode					

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