

THE ATTITUDE OF LEARNERS OF PRACTICAL BASED COURSES AND LEARNERS OF THEORY BASED COURSES TOWARDS DISTANCE LEARNING SYSTEM

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ABSTRACT

The distance learning system can be successful and rewarding to many extents when the quality of the system can be improved and a positive attitude can be formulated towards the system among the learners who pursue different types of courses including both practical based courses and theory based courses in the system. For formulating positive attitude among the learners towards the distance learning system, at first, there is need to study the attitude of the learners pursuing different courses in distance learning system towards distance learning system. The review of the studies in the field of distance learning system indicates that rare investigation has been carried out to study the attitude of the learners towards distance learning system. Hence, in this research, an attempt was made to study the attitude of learners of practical based courses and learners of theory based courses towards distance learning system. This research was formulated to achieve these four objectives: (i) to compare the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system; (ii) to compare the attitude of learners of practical based courses and the attitude of learners of learners of theory based courses towards distance learning system with regard to their background variables(i.e., gender, age, employment level and rural- urban level); (iii) to compare the attitude of learners of practical based courses towards distance learning system with regard to their background variables(i.e., gender, age, employment level and rural- urban level); and (iv) to compare the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level). The research falls under the scope of survey-cum-comparative type of research. The participants of the research included forty learners of Bachelor of Science (B.Sc.) course and forty learners of Bachelor of Arts (B. A.) course in two Study Centers of Indira Gandhi National Open University (IGNOU) Regional Center, Bhubaneswar (i.e., IGNOU Study Center, Khalikote College, Berhampur, and IGNOU Study Center, B.J.B. College, Bhubaneswar). The data of the research were collected personally from the participants. Basically quantitative methods of data analysis were used to analyze the data of the research. The results of the research identified the difference in attitude among learners of practical based courses and learners of theory based courses towards distance learning system. The research recommended viable strategies for creating a strong base of motivation and favourable attitude among learners as well as other personnel of distance learning system towards distance learning system.

Keywords: Attitude, Learner, Practical based courses, Theory based courses, Distance learning system

Introduction

Democratizing as well as universalizing education is considered quite significant for a nation like India, where the levels of literacy and education are almost low. Though India is in the process of making constant efforts to afford all of its citizens the free and compulsory education, but, it could not succeed in its target of free and compulsory education till today. Referring to this situation, distance learning system came into existence as an alternative and worthwhile option for different sections of people who have little access to the traditional or conventional educational institutions. The existing system of education has been revolutionized because of the influence of distance learning system (Selvam, 1999). Distance learning system has been evolved as an education system which is flexible and which is considered as an effective non-formal education system with a little rigidities and formalities to fulfil the desires of the people for attaining knowledge (Reddy, 2005). In the arena of education, Open and Distance Learning (ODL) system is a system that uses the teaching methods, strategies, techniques and technologies with the purpose of providing teaching, occasionally on one to one or small group basis, to the learners who are hardly present physically in conventional classroom setting. Distance education is a kind of

education where the sources of information and the learners are separated either by time or by distance, or by both in the process of creating and providing access to the learning (Honeyman and Miller, 1993). Persons of heterogeneous groups including rural masses, physically-challenged individuals, persons of geographically disadvantaged areas, prisoners, job holders, unemployed persons, parents, house wives, etc. are the beneficiaries of the distance learning system. Distance learning system is a significant learning system which tries to provide education to the door steps of different groups of people particularly to the disadvantaged groups. Therefore, the present generation learners have a lot of attraction towards this mode of education.

Since the inception of distance learning system, it is quite popular in offering theory based courses to the learners. Slowly, it is being observed that distance learning system has started offering practical based courses by realizing the importance of practical based courses. Practical based courses differ from theory based courses in any learning system including distance learning system. Theory based courses are related mostly to the learning of theoretical tasks where a little practical application of such tasks is required. But, in case of practical based courses, along with learning the theoretical tasks, application of the tasks is essential. While theory based courses are less exposed to laboratory based tasks, the practical based courses are in many extents exposed to laboratory based tasks.

Distance learning system, as an alternative system of learning, is intervening in the arena of education in a faster speed. This learning system is also taking challenge to offer many practical based courses to the learners besides offering several theory based courses to the learners. Large numbers of academic programmes starting from humanities to professional programmes are offered through diverse modes of open and distance learning system. Now a days, the ODL institutions not only impart educational programmes/courses which are alternative to the programmes/courses of the conventional/formal education, but also impart educational programmes/courses which are skill oriented like vocational and continuing education, teacher education and even high level technology based education (Bourne et al., 2005). It is not an easy task to offer both practical based courses and theory based courses through distance learning system as it is a self-instructional system. The system of distance learning faces numerous problems for running both practical based courses and theory based courses, as in this system the learner and teacher/counselor interaction is very less. The uses of multi-media in this system to some extents facilitate the interaction between the learner and teacher/counselor in the system, but the uses of multi-media in the system are not always possible and the uses of multi-media in the system have many limitations or shortcomings. Especially for running practical based courses, the distance learning system faces a lot of problems as conducting practical of practical based courses in distance learning system is a difficult affair. Many obstacles are found in teaching practical base courses like Science and Technology, Agriculture, Nursing, Medicine, Vocational Training and so on in open and distance learning system even though the uses of media and self-learning instructional/training modules are the basic features of the system (Nigam and Joshi, 2007). Distance learning system is distinguished from formal learning system as in distance learning system there is a physical separation between the teacher and the learner. Learners work at their own with supplied course materials and some forms of counselling provided to them through different media in distance learning system.

The distance learning system can be successful and rewarding to many extents when the quality of the system can be improved and a positive attitude can be formulated towards the system among the learners who pursue different types of courses including both practical based courses and theory based courses in the system. The success of any system of learning including distance learning system rests a lot upon the attitude and perception of its learners towards it. If the learners possess positive attitude and attachment towards learning system then the system functions well, otherwise the system somewhat fails to function well. Since distance learning system is in developing stage and the system has limitations of providing face to face learning, so, the system faces a lot of problems in offering different types of courses which include different types of practical based courses and theory based courses. The attitude of the learners of distance learning system is affected a lot by the problems of the distance learning system. Hence, there is need to understand the attitude of the learners pursuing different practical based courses and theory based courses towards distance learning system; and accordingly to take suitable steps to develop positive attitude among the learners towards the system. But, the review of the studies in the field of distance learning system indicates that rare investigation is made to study the attitude of the learners towards distance learning system. Hence, in this research, an attempt was made to study the attitude of learners of practical based courses and learners of theory based courses towards distance learning system.

This research was formulated to achieve these four objectives:

- 1) to compare the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system,
- 2) to compare the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system with regard to their background variables(i.e., gender, age, employment level and rural- urban level),

- 3) to compare the attitude of learners of practical based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level), and
- 4) to compare the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level).

Definitions of the Constructs Used

Four important constructs i.e., ‘distance learning system’, ‘attitude towards distance learning system’, ‘practical based courses’ and ‘theory based courses’ were used in this research. The definition of these constructs is given below.

Distance Learning System: Distance learning system generally represents to the learning system in which learning is acquired from a distance through open learning institutions, open learning centers/correspondence education centers of conventional institutions, etc. This research is delimited to distance learning system managed under the open university/institution of learning.

Attitude towards Distance Learning System: Attitude is a trait of an individual which describes his/her liking or disliking towards a situation and/or phenomenon. Attitude towards distance learning system, in this research, refers to one’s liking or disliking towards distance learning system.

Practical Based Courses: Practical based courses refer to those courses or subjects of learning in which the practical related tasks are found in a considerable extent. In this research, practical based courses are defined as the courses which are evaluated through three way evaluation system i.e., term end theory examination, submission of assignments, and term end practical examination.

Theory Based Courses: Theory based courses refer to the courses or subjects of learning in which the theory related tasks are found in a considerable extent and the practical related tasks are less found. In this research, theory based courses are defined as the courses which are evaluated through two way evaluation system i.e., term end theory examination and submission of assignments.

Area and Scope of the Study

The area of the study included two Study Centers of Indira Gandhi National Open University (IGNOU) Regional Center, Bhubaneswar. The Study Centers were IGNOU Study Center, Khalikote College, Berhampur and IGNOU Study Center, B.J.B. College, Bhubaneswar. The scope of the study included forty learners of Bachelor of Science (B.Sc.) course and forty learners of Bachelor of Arts (B. A.) course in these two study centers i.e., IGNOU Study Center, Khalikote College, Berhampur and IGNOU Study Center, B.J.B. College, Bhubaneswar. Since the main focus of this research was to study the attitude of learners of practical based courses and learners of theory based courses towards distance learning system, so, the research included that kind of sample institutions/centers where learners of both practical based courses and theory based courses are found i.e., IGNOU Study Center, Khalikote College, Berhampur and IGNOU Study Center, B.J.B. College, Bhubaneswar. The B.Sc. course offered in both IGNOU Study Center, Khalikote College, Berhampur and IGNOU Study Center, B.J.B. College, Bhubaneswar comes under practical based courses; and the B.A. course offered in both IGNOU Study Center, Khalikote College, Berhampur and IGNOU Study Center, B.J.B. College, Bhubaneswar comes under theory based courses.

Methodology and Design

The research falls under the scope of survey-cum-comparative type of research. As in this research the data relating to the attitude of forty learners of practical based courses and forty learners of theory based courses towards distance learning system have been collected from the sample institutions/centers through survey method of data collection, so, this research is considered under survey type of research. As in this research the data relating to the attitude of forty learners of practical based courses and forty learners of theory based courses towards distance learning system collected from the sample institutions/centers have been compared through comparative method of data analysis in order to reach at the meaningful conclusions of the study, so, this research is considered under comparative type of research. The study was concerned with four objectives. While analyzing data referring to the first objective of the research, no any background variable of the learners (examples of background variables are gender, age, etc.) was taken into consideration, but, while analyzing data referring to the last three objectives of the research, four background variables of the learners (i.e., gender, age, employment level and rural-urban level) were taken into consideration.

Participants

In respect of selecting the sample institutions/centers for the research, purposive sampling method was followed, but, for selecting the participants from the sample institutions/centers for the research, random sampling method was used. Forty learners of B.Sc. course and forty learners of B. A. course from two selected Study Centers of IGNOU Regional Center, Bhubaneswar i.e., IGNOU Study Center, Khalikote College, Berhampur and IGNOU

Study Center, B.J.B. College, Bhubaneswar were taken as participants for carrying out the research. The detail of the distribution of the participants for the research is given below.

Table-1 Distribution of the Participants

Sl. No.	Name of the Study Centers of IGNOU Regional Center, Bhubaneswar	No. of Courses	Type of Courses	No of Learners
1	Khalikot College, Berhampur	2	B.Sc. course	20
			B.A. course	20
2	B.J.B. College, Bhubaneswar	2	B.Sc. course	20
			B.A. course	20
Total				80

Measuring Instrument

A measuring instrument(scale) titled 'Attitude Scale for studying the Attitude of Learners towards Distance Learning System' was used to study both the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system. In respect of achieving all the four objectives of the study, this scale was used. The scale was administered on all the selected eighty learners (forty learners of B.Sc. course and forty learners of B. A. course) of the sample institutions/centers. This scale is a self-developed five point Likert type attitude scale and is consisted of 22 items. All these 22 items touch the different aspects of the attitude of learners towards distance learning system. The validity of the scale had been established through construct validation procedure. There is no any rigid time limit for administration of the scale on the participants. However, the scale normally takes around half an hour for its administration. The items of the scale basically require quantitative method of scoring and interpretation.

Data Collection and Data Analysis

The data of the present research were collected personally from the participants. A warm and natural atmosphere had been created while collecting data from the participants. Basically quantitative methods were used to analyze the data of the research. The quantitative methods of data analysis like 't' test, graphical representation of data, etc. were used to analyze the data of the research.

Analysis of Results

The analysis of the results of the present research is given under the following heads:

1. Comparison of the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system

Table-2 Significance of difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system

Course Type	N	Mean	SD	SEM	Mean difference	Calculated 't' value	Table value of 't' at 0.05 level	DF	Remark
PBC	40	81.93	9.561	1.512	6.200	2.855	1.99	78	■
TBC	40	88.13	9.861	1.559					

N : Number of Cases

SD : Standard Deviation

SEM : Standard Error of Mean

DF : Degrees of Freedom

PBC : Practical Based Courses

TBC : Theory Based Courses

■ Significant at 0.05 level

Table-2 depicts the significance of difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system. It is found from the table that the calculated 't' value is 2.855 and the table value of 't' at 0.05 level of significance for 78 DF is 1.99. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 78 DF, so, the null hypothesis is rejected. Therefore, it is decided that there is significant difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system. Since the mean level attitude scores of learners of theory based courses is significantly more than the mean level attitude scores of learners of practical based courses, so, it is inferred that learners of theory based courses have significantly more attitude than learners of practical based courses towards distance learning system.

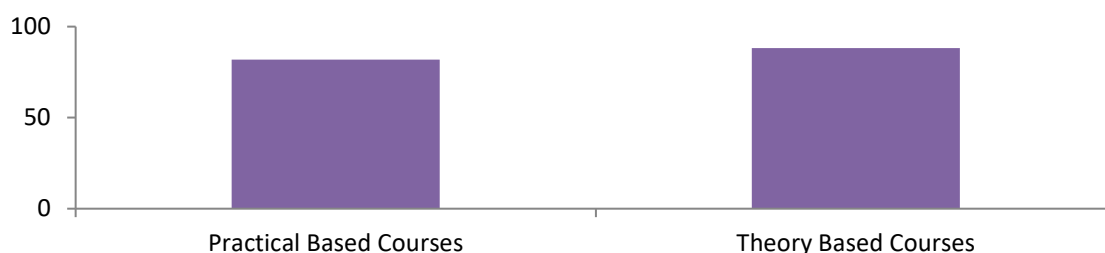


Figure-1: Mean level scores showing the difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system

2. Comparison of the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Table-3 Significance of difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Backgr ound variabl e Type	Division of the Backgroun d variables	Cours e Type	N	Mean	SD	SEM	Mean differ ence	Calcu lated 't' value	Table value of 't' at 0.05 level	DF	Rem ark
Gender	Boys	PBC	19	81.53	9.89	2.27	5.47	1.579	2.03	34	□
		TBC	17	87.00	10.90	2.64					
	Girls	PBC	21	82.29	9.47	2.06	6.67	2.372	2.02	42	■
		TBC	23	88.96	9.17	1.91					
Age	High Aged	PBC	16	83.19	11.06	2.76	5.81	1.672	2.04	31	□
		TBC	17	89.00	8.84	2.14					
	Less Aged	PBC	24	81.08	8.56	1.74	6.39	2.268	2.02	45	■
		TBC	23	87.48	10.69	2.23					
Employ ment level	Employed	PBC	13	82.62	10.15	2.81	10.92	2.546	2.06	24	■
		TBC	13	93.54	11.67	3.23					
	Non- Employed	PBC	27	81.59	9.44	1.81	3.92	1.663	2.01	52	□
		TBC	27	85.52	7.82	1.50					
Rural- Urban level	Rural	PBC	18	82.56	9.58	2.26	6.44	1.891	2.03	33	□
		TBC	17	89.00	10.57	2.56					
	Urban	PBC	22	81.41	9.73	2.07	6.06	2.118	2.02	43	■
		TBC	23	87.48	9.48	1.97					

□ Not significant at 0.05 level

Table-3 displays the significance of difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system with regard to their background variables. Here, the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system have been compared with regard to four background variables (i.e., gender, age, employment level and rural- urban level).

From the table, it is found that at gender level the learners are divided as boys and girls. Further, boys are categorized as boys of practical based courses and boys of theory based courses; and girls are categorized as girls of practical based courses and girls of theory based courses. At the boys level, it is found that the calculated 't' value is 1.579 and the table value of 't' at 0.05 level of significance for 34 DF is 2.03. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 34 DF, so, the null hypothesis is retained. Hence, it is concluded that there is no significant difference among the attitude of boys of practical based courses and the attitude of boys of theory based courses towards distance learning system. At the girls level, it is found that the calculated 't' value is 2.372 and the table value of 't' at 0.05 level of significance for 42 DF is 2.02. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 42 DF, so, the null hypothesis is rejected. Since the mean level attitude scores of girls of theory based courses are more than the mean level

attitude scores of girls of practical based courses, so, it is concluded that girls of theory based courses have significantly more attitude than girls of practical based courses towards distance learning system.

From the same table, it is remarked that at age level the learners are divided as high aged learners (learners having more than 25 years of age are called high aged learners) and less aged learners (learners having up to 25 years of age are called less aged learners). Further, high aged learners are categorized as high aged learners of practical based courses and high aged learners of theory based courses; and less aged learners are categorized as less aged learners of practical based courses and less aged learners of theory based courses. At the high aged level, it is found that the calculated 't' value is 1.672 and the table value of 't' at 0.05 level of significance for 31 DF is 2.04. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 31 DF, so, the null hypothesis is retained. Hence, it is concluded that there is no significant difference among the high aged learners of practical based courses and high aged learners of theory based courses in respect of their attitude towards distance learning system. At the less aged level, it is found that the calculated 't' value is 2.268 and the table value of 't' at 0.05 level of significance for 45 DF is 2.02. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 45 DF, so, the null hypothesis is rejected. Since the mean level attitude scores of less aged learners of theory based courses are more than the mean level attitude scores of less aged learners of practical based courses, so, it is concluded that less aged learners of theory based courses possess better attitude than less aged learners of practical based courses towards distance learning system.

From the same table, it is observed that at the employment level, the learners are divided as employed learners (learners who are working permanently /regularly in government/corporate sectors are called employed learners) and non-employed learners (learners who aren't engaged in any profitable sectors of work regularly/permanently, which include Govt., Corporate and other such sectors of work, are called non employed learners). Further, employed learners are categorized as employed learners of practical based courses and employed learners of theory based courses; and non-employed learners are categorized as non-employed learners of practical based courses and non-employed learners of theory based courses. At the employed level, it is found that the calculated 't' value is 2.546 and the table value of 't' at 0.05 level of significance for 24 DF is 2.06. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 24 DF, so, the null hypothesis is rejected. Since the mean level attitude scores of employed learners of theory based courses are more than the mean level attitude scores of employed learners of practical based courses, so, it is inferred that employed learners of theory based courses possess significantly more attitude than employed learners of practical based courses towards distance learning system. At the non-employed level, it is found that the calculated 't' value is 1.663 and the table value of 't' at 0.05 level of significance for 52 DF is 2.01. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 52 DF, so, the null hypothesis is retained. Thus, it is concluded that there is no significant difference between non-employed learners of practical based courses and non-employed learners of theory based courses in respect to their attitude towards distance learning system.

From the same table, it is remarked that at the rural-urban level, the learners are divided as rural learners (learners belonging to rural or countryside areas are called rural learners) and urban learners (learners belonging to urban or town areas are called urban learners). Further, rural learners are categorized as rural learners of practical based courses and rural learners of theory based courses; and urban learners are categorized as urban learners of practical based courses and urban learners of theory based courses. At the rural level, it is found that the calculated 't' value is 1.891 and the table value of 't' at 0.05 level of significance for 33 DF is 2.03. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 33 DF, so, the null hypothesis is retained. Therefore, it is inferred that rural learners of practical based courses and rural learners of theory based courses do not differ among themselves significantly with respect to their attitude towards distance learning system. At the urban level, it is found that the calculated 't' value is 2.118 and the table value of 't' at 0.05 level of significance for 43 DF is 2.02. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 43 DF, so, the null hypothesis is rejected. Since the mean attitude scores of urban learners of theory based courses are more than the mean attitude scores of urban learners of practical based courses, so, it is concluded that urban learners of theory based courses have higher attitude towards distance learning system in comparison to urban learners of practical based courses.

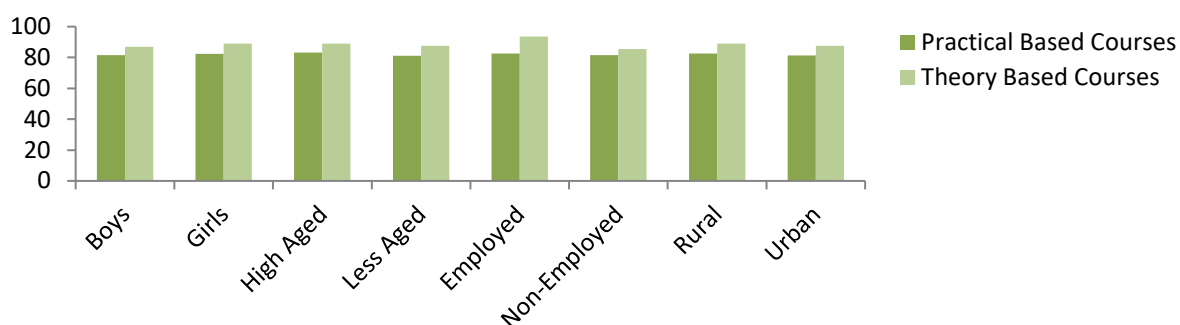


Figure-2: Mean level scores showing the difference among the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system with regard to their background variables (gender, age, employment level and rural-urban level)

3. Comparison of the attitude of learners of practical based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Table-4 Significance of difference among the attitude of learners of practical based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Background variable Type	Division of the Background variables	N	Mean	SD	SEM	Mean difference	Calculated 't' value	Table value of 't' at 0.05 level	DF	Remark
Gender	Boys	19	81.53	9.89	2.27	0.759	0.248	2.02	38	□
	Girls	21	82.29	9.47	2.06					
Age	High Aged	16	83.19	11.06	2.76	2.104	0.677	2.02	38	□
	Less Aged	24	81.08	8.56	1.74					
Employment level	Employed	13	82.62	10.15	2.81	1.023	0.313	2.02	38	□
	Non-Employed	27	81.59	9.44	1.81					
Rural Urban level	Rural	18	82.56	9.58	2.26	1.146	0.373	2.02	38	□
	Urban	22	81.41	9.73	2.07					

Table-4 shows the significance of difference among the attitude of learners of practical based courses towards distance learning system with regard to their background variables. Here the attitude of learners of practical based courses towards distance learning system has been compared with regard to four background variables (i.e., gender, age, employment level and rural- urban level).

The gender level data of the table state that the calculated 't' value is 0.248 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. For that reason, it is resolved that boys of practical based courses do not differ significantly from girls of practical based courses with regard to their attitude towards distance learning system. The age level data of the table demonstrate that the calculated 't' value is 0.677 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. So, it is determined that high aged learners of practical based courses do not differ significantly from less aged learners of practical based courses with regard to their attitude towards distance learning system. The employment level data of the table exhibit that the calculated 't' value is 0.313 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. As a result, it is inferred that employed learners of practical based courses do not differ significantly from non-employed learners of practical based courses with regard to their attitude towards distance learning system. The rural-urban level data of the table reveal that the calculated 't' value is 0.373 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value

of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. Accordingly, it is concluded that rural learners of practical based courses do not differ significantly from and urban learners of practical based courses with regard to their attitude towards distance learning system.

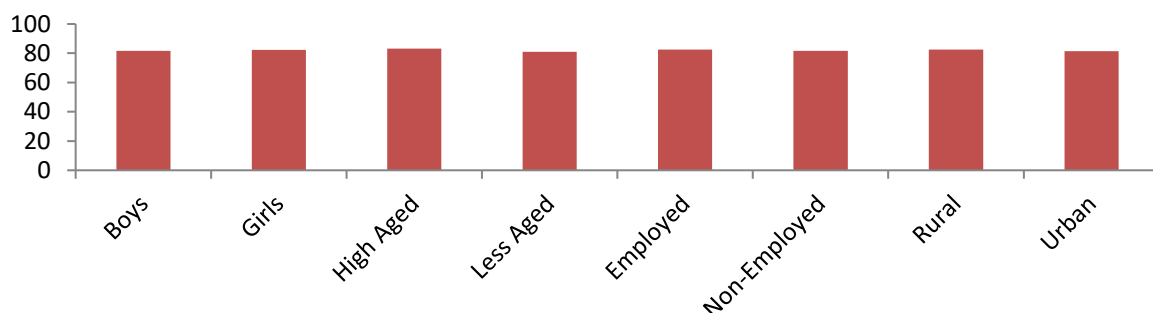


Figure-3: Mean level scores showing the difference among the attitude of learners of practical based courses towards distance learning system with regard to their background variables (gender, age, employment level and rural-urban level)

4. Comparison of the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Table-5 Significance of difference among the attitude of learners of theory based courses towards distance learning system with regard to their background variables (i.e., gender, age, employment level and rural- urban level)

Background variable Type	Division of the Background variables	N	Mean	SD	SEM	Mean difference	Calculated 't' value	Table value of 't' at 0.05 level	DF	Remark
Gender	Boys	17	87.00	10.90	2.64	1.957	0.615	2.02	38	□
	Girls	23	88.96	9.17	1.91					
Age	High Aged	17	89.00	8.84	2.14	1.522	0.478	2.02	38	□
	Less Aged	23	87.48	10.69	2.23					
Employment Level	Employed	13	93.54	11.67	3.23	8.020	2.578	2.02	38	■
	Non-Employed	27	85.52	7.82	1.50					
Rural Urban Level	Rural	17	89.00	10.57	2.56	1.522	0.478	2.02	38	□
	Urban	23	87.48	9.48	1.97					

Table-5 shows the significance of difference among the attitude of learners of theory based courses towards distance learning system with regard to their background variables. Here the attitude of learners of theory based courses towards distance learning system has been compared in relation to four background variables (i.e., gender, age, employment level and rural- urban level).

The gender level data of the table exhibit that the calculated 't' value is 0.615 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. Accordingly, it is established that boys of theory based courses do not differ significantly from girls of theory based courses with regard to their attitude towards distance learning system. The age level data of the table reveal that the calculated 't' value is 0.478 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. Thus, it is concluded that high aged learners of theory based courses do not differ significantly from less aged learners of theory based courses with regard to their attitude towards distance learning system. The employment level data of the table express that the calculated 't' value is 2.578 and the table value of 't' at 0.05 level of significance for 43 DF is 2.02. As the calculated 't' value is more than the table value of 't' at 0.05 level of significance for 43 DF, so, the null hypothesis

is rejected. Since the mean level attitude scores of employed learners of theory based courses is significantly higher than the mean level scores of non-employed learners of theory based courses, so, it is concluded that employed learners of theory based courses have higher attitude than non-employed learners of theory based courses towards distance learning system. The rural-urban level data of the table show that the calculated 't' value is 0.478 and the table value of 't' at 0.05 level of significance for 38 DF is 2.02. As the calculated 't' value is less than the table value of 't' at 0.05 level of significance for 38 DF, so, the null hypothesis is retained. Thus, it is concluded that rural learners of theory based courses do not differ significantly from urban learners of theory based courses with regard to their attitude towards distance learning system.

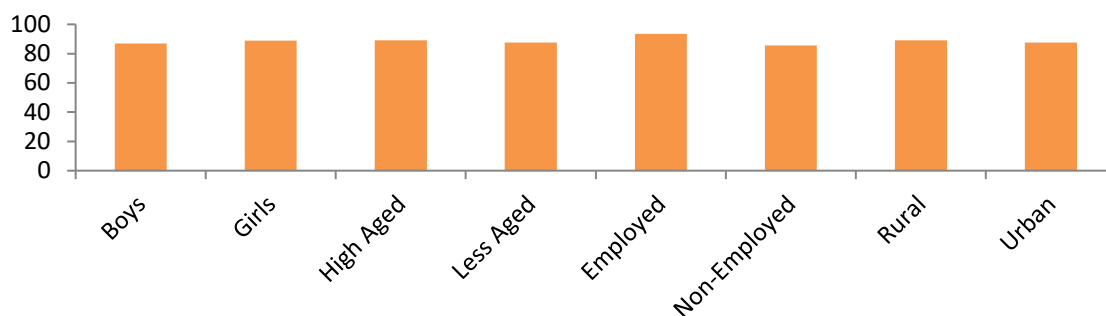


Figure-4: Mean level scores showing the difference among the attitude of learners of theory based courses towards distance learning system with regard to their background variables (gender, age, employment level and rural-urban level)

Discussion of the Findings

Present research studied the attitude of learners of practical based courses and the attitude of learners of theory based courses towards distance learning system. Many other investigations are also carried out by other investigators relating to the present research area. The findings of those investigations in one way or other are related to the findings of the present research. The thematic corroboration of the findings of the other investigations to the findings of the present research is given below.

From the present research, it is inferred that learners of theory based courses have significantly more attitude than learners of practical based courses towards distance learning system. From the present research, it is also inferred that there is no significant difference among boys of practical based courses and boys of theory based courses; among high aged learners of practical based courses and high aged learners of theory based courses; among non-employed learners of practical based courses and non-employed learners of theory based courses; and among rural learners of practical based courses and rural learners of theory based courses with regard to their attitude towards distance learning system. But, from the present research, it is also inferred that girls of theory based courses are significantly better than girls of practical based courses; less aged learners of theory based courses are significantly better than less aged learners of practical based courses; employed learners of theory based courses are significantly better than employed learners of practical based courses; and urban learners of theory based courses are significantly better than urban learners of practical based courses with regard to their attitude towards distance learning system. From the present research, it is concluded that learners of practical based courses don't differ among themselves significantly in their attitude towards distance learning system with regard to all the four background variables i.e., gender, age, employment level and rural-urban level. From the present research, it is also concluded that the learners of theory based courses don't differ among themselves significantly in their attitude towards distance learning system with regard to three of their background variables i.e., gender, age, and rural-urban level, but, they differ among themselves significantly in their attitude towards distance learning system with regard to one background variable i.e. employment level. Employed learners of theory based courses have significantly better attitude than the non-employed learners of theory based courses towards distance learning system in this context.

The findings of the investigations in the area of distance learning system carried out by Khan (1982); Sahoo and Bhat (1987); Sharma (1997); Kumar(1999); Thomas and Ghosh (1999); Shin and Maxwell (2003); Akoobhai and Bardley (2005); Ojo and Olakulehin (2006); Srichanyachon (2013); Trayek and Hassan (2013); Sadeghzadeh and Nakhaei (2017); Al- Ghazo (2018); and Herrador-Alcaide, Hernández-Solís, and Hontoria (2020) in different ways are corroborated to the findings of the this research. Khan (1982) viewed that a significant difference is found among the attitudes of male and female and employed and unemployed learners in the area of correspondence education. Sahoo and Bhat (1987) mentioned that there is significant difference between men students and women students; low age group and upper age group; and employed and unemployed with regard to their attitude towards correspondence system of education. Sharma (1997) expressed that the attitude of students enrolled for MBA

faculty differed significantly from the attitude of students of arts faculty; the difference was in favour of students of MBA faculty. Kumar (1999) stated that the attitude of learners of Indira Gandhi National Open University (IGNOU) towards distance education is favorable irrespective of their background characteristics. Thomas and Ghosh (1999) in their study on “Teaching of library and information sciences through distance mode” found that in the computer practical of the course, 68% of the respondents felt that 36 hours practical is not sufficient, and regarding the conduct and content of the practical 72% were satisfied. Shin and Maxwell (2003) identified a positive relationship between student’s perceptions of practical work and student’s satisfaction and motivation in distance science learning. Akoobhai and Bardley (2005) found that teachers’ attitude before doing practical work using micro-science equipment was very positive and this remained unchanged and in some cases improved after doing practical work using micro-science equipment in the context of providing practical experiences at home for students studying science at a distance. Ojo and Olakulehin (2006) indicated that students possess a positive attitude and perception towards open and distance learning in comparison to the traditional forms of higher education. Srichanyachon (2013) mentioned that the students having high computer aptitude have more positive attitude towards WebEx system than the students having low computer aptitude. Trayek and Hassan (2013) indicated that students’ attitudes toward the use of learning management system is determined by their perceived ease of use and perceived usefulness, and there is no significant difference between distance learning students and full time students regarding the use of learning management system. Sadeghzadeh and Nakhaei (2017) found that the professors who were involved in m-learning application in Southern Khorasan Payam-e-Noor University had positive attitude for m-learning application. They were satisfied with the m-learning application mostly because of safety of the presented architecture. AI- Ghazo (2018) reported that female learners do not differ from male learners regarding their attitudes toward the use of the internet for developing their language proficiency. Herrador-Alcaide, Hernández-Solís, and Hontoria (2020) indicated that in distance education program, mature students in Accounting give more value to online tools and give high score to their own attitude to Accounting and the role of teacher in virtual learning. All these studies in different ways indicate that the attitude and perception of the stakeholders of distance learning system vary from context to context on the basis of their personal characteristics, academic environment and other such features and characteristics.

Recommendations of the Study

For the smooth functioning and sustaining of distance learning system, the distance learning system should be put in sound line/ proper track. Proper motivation and favourable attitude must be developed towards distance learning system among the learners as well as other personnel who are involved in the system. Further, positive attitude must be developed among the learners in order to pursue practical based courses as well as theory based courses in distance learning system. The present research can be considered as a stepping stone for understanding the attitude of learners of both practical based courses and theory based courses towards distance learning system and also shaping positive attitude among learners of both practical based courses and theory based courses towards distance learning system. The research has wide implications for implementing/adopting the under mentioned strategies for qualitative and quantitative changes in distance learning system:

1. Efforts should be done to develop a sense of positive attitude among the learners towards distance learning system.
2. The existing gap in attitude among learners of practical based courses and theory based courses towards distance learning system should be abridged; and learners of both practical based courses and learners of theory based courses should be motivated towards distance learning system.
3. Steps should be taken to analyze and accordingly solve the existing problems and issues of both practical based courses and theory based courses in distance learning system, so that such courses can be pursued by more and more numbers of learners without any difficulty.
4. Steps should be taken to strengthen all the factors which affect positively for running of both practical based courses and theory based courses in distance learning system.
5. The stake holders of distance learning system(i.e., administrators, counsellors, distance education specialists, etc.) should be oriented properly to take active steps for opening/running different types of practical based courses and theory based courses in distance learning system.
6. Generally in distance learning system less numbers of practical based courses are offered / implemented in comparison to theory based courses. So, steps should be taken to open/offer more numbers of practical based courses in distance learning system which in turn would help to maintain balance between theory based courses and practical based courses in distance learning system. And, for achieving this balance between practical based courses and theory based courses in distance learning system, the different stakeholders of distance learning system (i.e. distance education specialists, distance education planners, distance education administrators, etc.) should be properly motivated and oriented to facilitate for launching/implementing/running practical based courses in distance learning system in wider manner.

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