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Role of dynamic elements involved in synchronized online teaching and learning situation

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Abstract

Background: This systematic research describes the effects of online teaching on college students learning performance. The second year students of B.Sc. (Hons.) Agriculture students of Tamil Nadu Agricultural University (TNAU) have undergone few courses in remote teaching in synchronized online mode. In the year 2022-2023 to get the good exposure on the subject matter from eminent faculties. Hence, this study was initiated to know the advantages and disadvantages of this type of e-learning by addressing the key elements involved in teaching-learning situations.

Methods: In this study, survey were conducted for Agricultural students during 2022-2023, different location of Agricultural College and Research Institute. The Questionary were prepared using google form and the link has sent to the students. Responses were obtained in google form from 240 respondents.

Results: The study revealed that principle for effective delivery of subject matter such as Known to unknown, Simple to complex and rehearsal of previous lecture was ignored. Absence of Interaction between teachers and learners is the another major problem. Suitable modification in delivering the content according to the pace of learning through asynchronised mode may be adopted in trail basis.

Keywords: Online teaching, google form, responses, learning situation, trail basis

Introduction

In any Teaching and Learning Situation invariably the role of five elements namely, teachers, learners, physical environment, subject matter and teaching aids can be identified either explicitly or covertly (Robert Coe, *et al*, 2014, P. Sivakumar, S. Selvakumar 2019. S.A. Elian, and D.A. Hamaidi, 2018) ^[5, 2, 3]. The second year students of B.Sc. (Hons.) agriculture students of Tamil Nadu Agricultural University (TNAU) have undergone five courses namely ENS201, HOR211, SAC201, FMP211 and ERG 211 in remote teaching in synchronized online mode. The role played by each element in learning situation of synchronized online teaching as experienced by the students of agriculture related to the courses was studied and presented in the research paper.

Material and Methods

Explorative study design with Expose facto-research design was adopted, purposive sampling was done because of the accessibility and the exposure to online. Two hundred and forty number of II year B.Sc. (hons) agricultural Students of Madurai and Kudumiyamallai campus of TNAU who have undergone courses through e learning were chosen as respondents. Data Collection was done through posting the Online Questionnaire in google form during April to June month of 2023. To draw the inference The collected data was subjected to percentage analysis.

Results and Discussion

From the table 1 it can be observed that, more than eighty percent of the students felt that the teachers are very keen to deliver the content and sincere in their effort. They have very well organized the subject matter to fit into the remote learning. However one fourth of students felt there is lack of interest and enthusiastic to teach the subject matter because of impersonal atmosphere and nearly one third of them found that the teachers had difficulties in handling the remote teaching software.

The half of the students felt that the teachers were found difficulties to interact with the students.

The students who did not want learn through remote learning have outnumbered (60.00 percent) than those who like to learn as they found difficulties to concentrate the presentation. However, 55 percent of them have understood remote learning is inevitable in coming days because of lack of staff strength that can be overcome through the advancement of available ICT tools. Nearly two third of the learners found that remote learning had created more distraction and retarded the active learning.

As for the physical environment for remote learning is concerned nearly two third of the respondents were satisfied with provision of separate room for remote learning and incessant flow of power supply etc. However, half of them

reported there was lack of sound proof that made them to have distraction from surroundings. Because of synchronized mode of remote teaching, the learners did not have any hand on experience to handle any tools to control or speed up the delivery. For remote teaching mostly micro soft team software tools were used. The subjects were taught mostly in English and occasional remark or illustrations in Tamil. Steady connection of internet without much interruption was also observed. Moreover, all most all the students were possessed with lap tab and have acquaintance in using the micro soft team software may be taken in to account to make the remote learning in asynchronised mode that may enhance reading in leisure time in their own pace for effective learning (Christopher Pappas 2015) [6].

Table 1: Experience of learners related to role of teachers in synchronized online teaching

Role of Teachers in synchronized online teaching	Responses	No	Percentage (N=240)
Whether the teacher has clear objectives and purpose through remote teaching	No	46	19.17
	Yes	194	80.83
Whether the teacher has organized the subject matter fit to the remote teaching	No	43	17.92
	Yes	197	82.08
Whether the teacher is interested and enthusiastic to teach the subject matter through remote teaching.	No	64	26.67
	Yes	176	73.33
Whether he could able to use the tools available in the remote teaching software.	No	87	36.25
	Yes	153	63.75
Whether he could able to interact with the students without constraints.	No	124	51.67
	Yes	116	48.33

Table 2: Experience of learners related to synchronized online teaching

Role of learners in synchronized online teaching	Responses	No	Percentage (N=240)
Are you willing to learn the subject matter through remote learning.	No	138	57.50
	Yes	102	42.50
Could you able to follow the thought of subject matter through the remote teaching.	No	128	53.33
	Yes	112	46.67
Do you agree with the necessity of remote teaching in the present scenario.	No	110	45.83
	Yes	130	54.17
Could you able to free from distraction through the remote teaching.	No	156	65.00
	Yes	84	35.00
Are you actively involved in listening.	No	125	52.08
	Yes	115	47.92

Table 3: Experience of learners related to role of physical environment in synchronized online teaching

Role of physical environment in synchronized online teaching	Responses	No	Percentage (N=240)
Could you able to learn free from outside distraction, obstruction.	No	123	51.25
	Yes	117	48.75
Whether you have a separate class room for remote learning	No	81	33.75
	Yes	159	66.25
Whether you have any backup measures in case of current failure.	No	89	37.08
	Yes	151	62.92
Whether you have permitted to operate the tools independently.	No	153	63.75
	Yes	87	36.25

Table 4: Experience of learners related to role of teaching tools used in synchronized online teaching

Role of Teaching tools in synchronized online teaching	Responses	No	Percentage (N=240)
medium used for remote teaching	English	237	98.75
	English and Tamil	3	1.25
Platform used for Remote Sensing	Microsoft Teams	189	78.75
	Google Classroom	51	21.25
Personal Computer at Home	No	3	1.25
	Yes	237	98.75
Internet Connection	No	0	0
	Yes	240	100

Table 5: Experience of learners related to role of subject matter used in synchronized online teaching

Role of subject matter in synchronized online teaching	Responses	No	Percentage (N=240)
Whether the available content suit to teach through remote teaching.	No	130	54.17
	yes	110	45.83
Whether the content is updated and relevant	No	46	19.17
	yes	194	80.83
Whether the subject matter taught in Known to unknown	No	123	51.25
	yes	117	48.75
Whether the subject matter taught in Simple to complex	No	125	52.08
	yes	115	47.92
Whether are you getting adequate satisfaction through remote learning	No	159	66.25
	yes	81	33.75
Whether there was continuity and rehearsal of previous lecture	No	189	78.75
	yes	51	21.25

The course content was treated well to suite the remote learning was felt by less than 45 percent of respondents. nearly 80 percent of them reported the content was updated with relevant information since, every lecture was covered by different teachers. However, three fourth of the students expressed dissatisfaction due to lack of continuity and rehearsal of previous lecture. The essential principle to be followed for effective teaching like simple to complex, known to unknown was found to be lacking by 40 to 50 percent of respondents. Because of above reasons nearly two third of the expressed dissatisfaction towards covering subject matter through remote teaching. This finding is in accordance with ELM Learning 2022.

Conclusion

The dynamic elements namely, teachers, learners, physical environment, subject matter and teaching aids involved in synchronized online teaching and learning situation have played significant role to impart learning experience. While, the advantages such as teachers are very keen to deliver the content and sincere in their effort and such as organized the subject matter to fit into the remote learning and the colleges are adequately equipped classroom facilities and teaching tools etc., the learners are not preferred to be get educated through e-learning. The basic principle for effective delivery of subject matter such as Known to unknown, Simple to complex and rehearsal of previous lecture was found to be absent. Interaction between teachers and learners is the another area of concern where online synchronized teaching failed. Suitable modification in delivering the content according to the pace of learning through asynchronised mode may be adopted in e-learning.

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