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Effect of online examinations on student's motivation to deeply understand subject content

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Abstract---Aim of the investigation was to investigate the effect of online examination on understanding subject content. For present investigation researcher selected the sample size of approximately n=100 students convenience sampling technique used was convenience sampling technique data was collected from educational institutions. Since study is qualitative in nature sampling technique was considered to be lesser in size. Simple descriptive research will be used in present investigation along with qualitative method. Two tools were used two open-ended questions and an interview method were used. chi square worth is suggestive of the fact the three is difference in opinion and as well as it also tells us that online mode is useful or not if we see the descriptive statistics, we will find same is 65% as compared to no category to make it more objective if we see the results of chi square, we will find that highly significant which asserts that online mode is of sheer worth. Furthermore comparison of second question reveals that chi square worth which is $\chi^2(1) = 49.75$, $p < 0.0001$ which is highly significant at 99% thus it is more than evident that as far as examination system is concerned online system doesn't seem to be too useful to make to content clear. As we know face to face discussions conversations seems to have deep impact on the psyche of individuals because conversation requires both verbal and non-verbal conversation. So, when we talk about the physical class room there is face to face interaction always with particular schedule and timings for every session and class. But whenever sector went online things turned all of sudden there was big change in terms as far as education is concerned, we will find this is first time when education system was also online but there were some technological challenges in terms of internet speed connection, area of living and various other technical challenges and individual differences too thus this affected the learning parameters too and hence understanding of the content too.

Keywords---online examination, COVID-19, educational institutions.

Introduction

27 jan 2020 was the day when the first incidence of Covid-19 was reported in India. (Andrews, M.A.; Areekal, Binu; Rajesh, K.R.; Krishnan, Jijith; Suryakala, R.; Krishnan, Biju; Muraly, C.P.; Santhosh, P.V., 2020) After which within a period of two months Government passed orders to closure of all educational institutions on 16 in the month of march 2020. (India, 2020) Since then exams were being constantly postponed for months but as the world was seeing no end to the state it had entered Online classes followed by Online examinations became the post covid-19. Although this alternative allowed us to resume education, it has had negative consequences as well. There has been a significant effect of current ways of learnrness on student motivation. Research has shown students scoring low on sense of motivation during the pandemic period. The study showed that grade security (grades cannot go down) which initially came as a part and parcel of the lockdown was a major contributing factor.

Currently in contemporary educational psychology four researches that talk of motivation are at first place. They are – Self Efficacy theory, Attribution Theory, Self-Worth Theory and Achievement Goal Theory. Though labeled as different theories they have many common elements. First of these theories is Self-efficacy theory. Self-efficacy is parallely associated to confidence. It is a construct which refers to an individual's judgement about their abilities and capabilities of performing a task to attain specific performance attainments. It is the individuals confidence an individual male or female will be able/unable to perform a task successfully. Self-efficacy has proven to be related to achievement related behaviors which include motivation, self-worth, achievement performance, choice of activities and cognitive operations. Efficacious students are the ones who visualize themselves to be proficient and are more likely to be strategic and self-operating than those who do not feel effective. This is the self-efficacy theory. It points out that successful students will be more willing to undertake challenges and will not give up easily when faced with failure.

Attribution theory is focused on casual antecedents and the way they are perceived which results in future behavioral patterns. Simply put attribution refers to the cause attached to a particular outcome. With reference to a student outcome can be clearing or failing a test or scoring high or low on an exam. Attribution theory states that these outcomes can be attributed to either external or internal factors by the student. External factors such as luck, teacher's mood, or mistakes made by teacher and internal factors such as effort, skills, knowledge, or strategies. Based on the attributions made an emotion is experienced either positive or negative and this emotion then guides future behavior. Students may cite certain factors as attributions, such as ability or effort, but it is their perception of the nature of these attributions that affects their motivation through emotions. Failure, if attributed to stable internal factors such as "I'm not smart enough," leads to learned helplessness and leads to avoidance behaviour later in life. In contrast, students who attribute failure to

controllable internal causes tend to have pride, satisfaction, self-confidence, and higher self-esteem attributed to performance-related behaviour.

Third theory is the Self – worth theory which aims at explaining student motivation as attempts at maintaining and enhancing self-worth. It dictates that student to confirm their abilities and competencies are motivated to take efforts and perform well academically. Abilities are related to self – worth and the premise is every individual is motivated to protect their self – worth. Hence by avoiding failure being able is confirmed through which self-worth is retained. Failure avoidant can be misleading as it suggests avoiding academic failure. Instead, failure avoidant refers to avoiding the implication of failure namely inability. This can be understood through a student who when given an exam he or she is not prepared for will not attempt anything at all and chose to fail, instead of trying to attempt something and barely passing. Here since the attempt was not made the abilities were not tested and hence inability was implied. According to this theory students are motivated to take or not take effort based on whether it will allow them to avoid affirmation of inability or incompetency, directly protecting self-worth.

The fourth and the last theory is Achievement goal theory. According to achievement goal theory there are two kinds of students. First type is Learndness goal student who are motivated to take effort in order to attain mastery and the other type is performance goal student who is motivated to attain performance which is as compared. The theory poses that there are goals behind academic motivation which influence the student's approach. Learndness goal students are learndness and task oriented processing tasks as challenges which need to be overcome to demonstrate competence. Whereas performance goal students are more focused on ability and look at performance as compared to other, being concerned with how others view them.

A common link between all these theories is effort and ability. In a student's life these two elements are tested through exams. In the current pandemic as exams are conducted online. In online exams about 73 % of the students have found to be cheating according to a survey. (EducationWorld, 2021). And most of the students do not have to face any consequence as no one can see what is really happening at the students end. (NEWTON, DEREK, 2020) As a result of this good grades have lost their worth. Self- efficacy theory posits those students who are efficacious would undertake challenges and perceive themselves to be capable. Since the high grades in current time are attained without effort it will not result in any sort of confidence or self – efficacy.

Attaining high scores which is the outcome is a result of external factors (i.e., being able to cheat). If the attributed factor is external, then no room or need is left for internal factors. Hence there would be no need to work on controllable internal factors such as ability or knowledge as external factors will get the job done. This results in shallow or no knowledge at all. The protection of grades has caused assessments to lose their worth which intern has affected the efforts that students take. Cheating is also a trait of the failure avoidant student discussed earlier as it ensures success hence avoiding the assessment of true abilities which might harm self-worth if tested.

Literature Review

Cheating has become a common practice with about 73.3% students practicing it. (Butler-Hendersona & Crawfordb, 2020) This has raised questions about the reliability and validity of online exams. In some educational institutions it was found that students are paying individuals to appear for their exams who is not even a student. (NEWTON, DEREK, 2020). Online proctoring procedures are an essential and viable option to prevent cheating in online examinations, but most institutions are not willing to pay the sum that is required to implement procedures. (Dendir & Maxwell, 2020). In an investigation conducted by the Perez et al (2011) In the fall of 2008 and spring of 2009, the researchers evaluated the influence of podcasting on student motivation in online environments. The results show that students were moderately motivated by using podcasts in their online courses.

Using the problem-based online learning (PBL) strategy, researchers sentag and odabasi (2009) investigated how CTS and content acquisition are affected in an online learning environment by the development of critical thinking abilities. Learning in the online PBL group had no significant impact on the results of knowledge acquisition, according to the results of the two-way mixed design ANOVA. Online PBL group learning had a considerable impact on critical thinking, according to the study. Web-based educational resources were used to develop an acid-base physiology elective course that was rich in student-centered web educational environments that supported PBL, according to an investigation by Taradi et al. (2005). WBLPBL-based mixed test group (n = 37) compared to a control group (n = 84) with teaching abilities deduced from a typical in-class PBL model produced 4,444 student test scores and satisfaction survey outcomes. The final acid-base physiology exam scores of 4,444 WBL students were considerably higher ($t = 3.3952$; $P = 0.0009$), and students reported a positive attitude toward the new learning environment in the satisfaction survey that followed the exam results.

Seoud et al (2014) Moodle could be used as an aid for the provision of electronic content and offers several possibilities for the implementation of asynchronous web-based e-learnedness modules. Shakurani and colleagues (2018) These differences were found to be significant in both groups by an independent t test ($p = 0.009$). However, the majority of students indicated that the question writing activity as a learnedness tool is an unfamiliar exercise and an unpopular learnedness strategy. Walker and co-authors (2013) This paper aims to examine how interaction and other factors influence student happiness in an online learning environment.. Students' happiness was found to be well predicted by their online contacts with teachers, material, and their own self-efficacy, but not by their own interactions with other students or their own ability to govern their own learning.

At the very least, go out and hunt (2014) In an analysis, it was found that colleges and students are increasingly interested in professors teaching online. Data from a wide range of faculties (part-time, long-term, new and more experienced, in education as well as the arts) is examined in this research to assess the relationship between attitudes, experiences and self-perceived will. answer

students' worries regarding online education. Other concerns expressed by instructors who teach in an online environment include challenges with workload and student-teacher communication (Hiltz, et al., 2007; Shea, 2007).

Shea (2007) conducted an investigation and discovered that new online teachers were more likely to report a lack of face-to-face interaction with students as a concern than teachers who taught online frequently. New online teachers also expressed worries about their limited training (for example, opportunities to watch online lessons, unfamiliarity with successful online pedagogy). Intrinsic rewards include masturbation and fulfilment of a personal desire to teach. Other researchers have found that intrinsic rewards include the opportunity for new ideas and the personal motivation to use technology, as well as intellectual challenge, acceptance of a new challenge, and the opportunity to improve teaching (Betts, 1998; Dillon & Walsh, 1992; Maguire, 2005; Rockwell, Schauer, Fritz & Marx, 1999; Schifter, 2000; Shea, 2007).

Objectives of the research

After going through the review of literature investigator found that no such research is conducted ever hence on the basis of review of literature and after reading similar tests and researcher investigator reached to the conclusion to formulate below mentioned objectives. To understand apprehension of the student pertaining the online examination and off line examination.

Methodology

Sample and Sampling technique

For present investigation researcher selected the sample size of approximately n=100 students convenience sampling technique used was convenience sampling technique data was collected from educational institutions. Since study is qualitative in nature sampling technique was considered to be lesser in size.

Design of Research

Simple descriptive research design will be used is used in present investigation along with qualitative method.

Tools used

Tool was developed for the present investigation it was open ended questionnaire containing two questions only and interview

Q1. Is online mode useful medium for teaching and examination or not if YES why and if NO why.

Q2. According to you what are advantages and disadvantages of online examination answer your responses in YES or NO, with reason.

Interview

Basic interview was also conducted to know the validity of input given for the questions

Procedure

Data collection was done using online method and interview was conducted with same respondents while they were responding the above questions. Interviews were conducted in order to check whether responses are valid or not so interview second the written responses.

Results and Discussion

Table 1
Showing descriptive statistics of overall data for question 1

QUESTION 1: Is online mode useful medium or not if YES why and if NO why.

TOTAL SAMPLE	YES	NO
N=100	65	35
COMPARITIVE PERCENTAGE	65%	35%

Above table shows the percentage wise classification of the data for first question and for first category same is 65%, while for the second category that is no the response percentage is 35% but to prove the difference statistically researcher applied chi square test of proportions.

Table below gives chi-square test of proportions

DIFFERENCE	30%
95% CI	16.2% to 42.2%
CHI-SQUARED	17.91
DF	1
SIGNIFICANCE LEVEL	P<0.0001

As per calculation given above there stands significant difference amongst the responses of the respondent's chi square worth is suggestive of the fact the three is difference in opinion and as well as it also tell us that online mode is useful or not if we see the descriptive statistics we will find same is 65% as compared to no category to make it more objective if we see the results of chi square we will find that highly significant which asserts that online mode is of sheer worth.

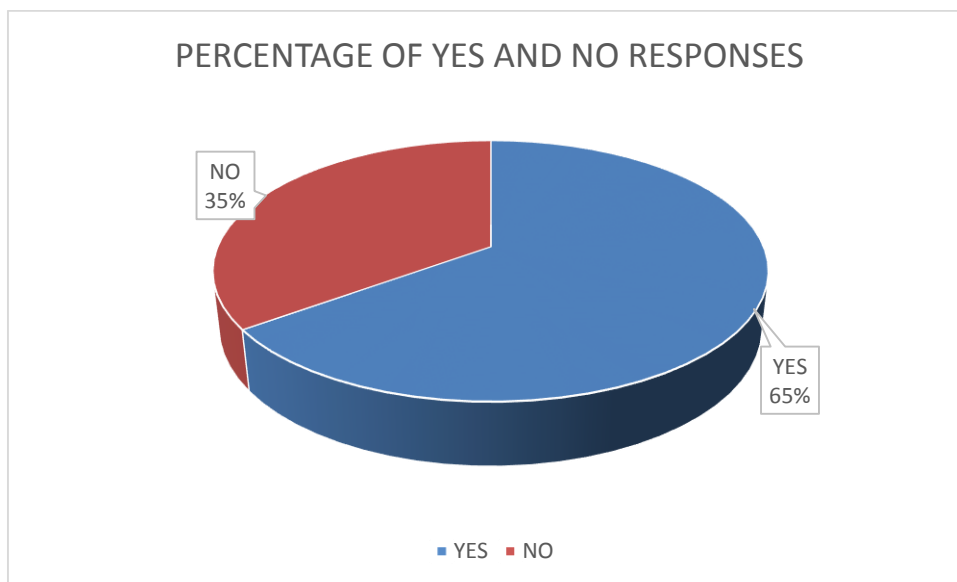


Table 2
Showing descriptive statistics of overall data for question 2

Q2. According to you what are advantages and disadvantages of online examination answer your responses in YES or NO, with reason.

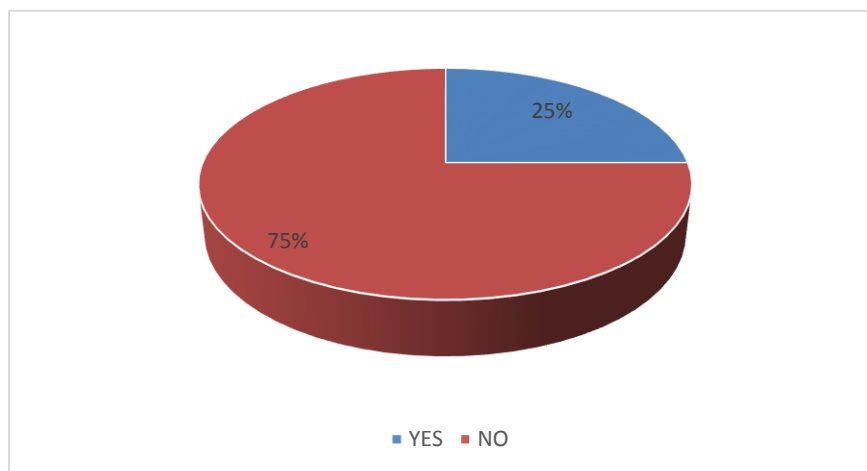
TOTAL SAMPLE	YES	NO
N=100	25%	75%
COMPARITIVE PERCENTAGE	25%	75%

Above table gives details of total sample and their replies pertaining to the advantages and disadvantages same was also classified in yes and no categories if we see percentages, we will find that for YES category same is 25% while NO is 75%. It also shows that as far as examination is considered in terms of advantages and disadvantages it seem to be less beneficial. In order to prove the same statistically Chi-square test of proportions is also applied. Table below gives chi-square test of proportions.

DIFFERENCE	50%
95% CI	36.8% to 60.5%
CHI-SQUARED	49.75%
DF	1
SIGNIFICANCE LEVEL	P<0.0001

Above table gives chi-square test of proportions difference seems to be of 50% which is significant it is also suggest that there seem to be the difference in both the categories that is yes and no in terms of advantages and disadvantages same is signified by the chi square worth which is $\chi^2(1) = 49.75$, $p < 0.0001$ which is highly significant at 99% thus it is more than evident that as far as examination

system is concerned online system doesn't seem to be too useful to make the content clear. It was shown that PhD students who engaged in online discussions had positive answers to most elements of their experiences, even if they differed greatly from their own personal experiences. In contrast to popular belief, online discussions were seen as enhancing rather than replacing face-to-face interactions.



Conclusion

As we know face to face discussions conversations seem to have a deep impact on the psyche of individuals because conversation requires both verbal and non-verbal conversation. So, when we talk about the physical classroom there is face to face interaction always with particular schedule and timings for every session and class. But whenever sector went online things turned all of a sudden there was a big change in terms as far as education is concerned, we will find this is the first time when the education system was also online but there were some technological challenges in terms of internet speed connection, area of living and various other technical challenges and individual differences too thus this affected the learning parameters too and hence understanding of the material too.

References

- Andrews, M. A., Areekal, B., Rajesh, K. R., Krishnan, J., Suryakala, R., Krishnan, B., ... & Santhosh, P. V. (2020). First confirmed case of COVID-19 infection in India: A case report. *The Indian journal of medical research*, 151(5), 490.
- Zambrano, L. D., Ellington, S., Strid, P., Galang, R. R., Oduyebo, T., Tong, V. T., ... & Zapata, L. (2020). Update: characteristics of symptomatic women of reproductive age with laboratory-confirmed SARS-CoV-2 infection by pregnancy status—United States, January 22–October 3, 2020. *Morbidity and Mortality Weekly Report*, 69(44), 1641.
- López-Pérez, M. V., Pérez-López, M. C., & Rodríguez-Ariza, L. (2011). Blended learning in higher education: Students' perceptions and their relation to outcomes. *Computers & education*, 56(3), 818-826.

- Dendir, S., & Maxwell, R. S. (2020). Cheating in online courses: Evidence from online proctoring. *Computers in Human Behavior Reports*, 2, 100033.
- Şendağ, S., & Odabaşı, H. F. (2009). Effects of an online problem-based learnndness course on content knowledge acquisition and critical thinking skills. *Computers & education*, 53(1), 132-141.
- Taradi, S. K., Taradi, M., Radić, K., & Pokrajac, N. (2005). Blending problem-based learnndness with Web technology positively impacts student learnndness outcomes in acid-base physiology. *Advances in physiology education*.
- Abou El-Seoud, M. S., Taj-Eddin, I. A., Seddiek, N., El-Khouly, M. M., & Nosseir, A. (2014). E-learnndness and students' motivation: A research study on the effect of e-learnndness on higher education. *International journal of emerging technologies in learnndness (iJET)*, 9(4), 20-26.
- Shakurnia, A., Aslami, M., & Bijanzadeh, M. (2018). The effect of question generation activity on students' learnndness and perception. *Journal of Advances in Medical Education & Professionalism*, 6(2), 70.
- Kuo, Y. C., Walker, A. E., Belland, B. R., & Schroder, K. E. (2013). A predictive study of student satisfaction in online education programs. *International Review of Research in Open and Distributed Learnndness*, 14(1), 16-39.
- Hunt, H. D., Davies, K., Richardson, D., Hammock, G., Akins, M., & Russ, L. (2014). It is (more) about the students: Faculty motivations and concerns regarding teaching online. *Online Journal of Distance Learnndness Administration*, 17(2), 62-71.
- Hiltz, S. R., P. Shea, & E. Kim. (2007). "Using focus groups to study ALN faculty motivation. "Journal of Asynchronous Learnndness Networks 11(1):21-124.
- Shea, P. (2007). "Bridges and barriers to teaching online college courses: a study of experienced online faculty in thirty-six colleges." Journal of Asynchronous Learnndness Networks 11(2):73-128
- Dillon, C.L. & S. M. Walsh. (1992). "Faculty: The neglected resource in distance education. "The American Journal of Distance Education 6(3):5-21.
- Betts, K.S. (1998). "An institutional overview: Factors influencing faculty participation in distance education in postsecondary education in the United States: an institutional study." Online Journal of Distance Learnndness Administration 1(3). Retrieved February 3, 2013 from <http://www.westga.edu/~distance/ojdla/fall13/betts13.pdf>.
- Maguire, L.L. (2005). "Literature review – Faculty participation in online distance education: barriers and motivators." Online Journal of Distance Learnndness Administration 8(1).
- Rockwell, S. K., J. Schauer, S. M. Fritz, & D. B. Marx. (1999). "Incentives and obstacles influencing higher education faculty and administrators to teach via distance." Online Journal of Distance Learnndness Administration 2(4). Retrieved February 3, 2013 from <http://www.westga.edu/~distance/rockwell24.html>.
- Schifter, C. (2000). "Faculty participation in asynchronous learnndness networks: a case study of motivating and inhibiting factors." Journal of Asynchronous Learnndness Networks 4(1):15-22.
- Shea, P. (2007). "Bridges and barriers to teaching online college courses: a study of experienced online faculty in thirty-six colleges." Journal of Asynchronous Learnndness Networks 11(2):73-128.

- Tiene, D. (2000). Online discussions: A survey of advantages and disadvantages compared to face-to-face discussions. *Journal of Educational Multimedia and Hypermedia*, 9(4), 369-382.