An Empirical Study On Effectiveness of E-Learning Over Conventional Class Room Learning – A Case Study with Respect to Online Degree Programmes in Higher Education

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Abstract. Learning and teaching domains is going on major higher education companies of e-learning Ideas and practices changes due to quick acceptance. Many universities all over the world are now begins to offer Internet based courses that complement classroom-based courses. Online courses offer learners various such as benefits facilities, Teachers and other close to students to serve flexibility and opportunities from various schools or around the world. The education system and mode of education is changing over the period of time. In instructional technology Innovations often are implemented in traditional ways. TV significantly changes the way people learn, and it stays that way Existing instruction by providing a speaking head as an instructional tool built into the paradigm for sending information to students. Active learning, Cooperative learning, Project-based teaching and despite such educational innovations contextual face-to-face instruction in learning changed character, online courses tend develop more traditional concepts Learning. Mostly an online course primary objective is to transfer information from the Instructor to the student accessing information to students and expecting them Prove their learning in an exam. The development of online instruction programs for online course developers raise an interesting question. Online study designers follow traditional method or incorporate online programs innovative approaches. Primary factors behind the use of online learning improve the quality of education, and also improve the cost effectiveness of education by reducing costs. With face-to-face Online learning is used successfully with positive effects in career and education. A geographically distributed team within an organization can simultaneously train their skills through online sites and gain greater Competitiveness. Online learning can be beneficial because Students at their own pace can learn through online products. Virtual classrooms are available anywhere with Internet connection, take advantage of this great way to travel. Gurukul system of education changed to imparting knowledge in a class room setting followed by hybrid learning and at present one new way of learning has emerged as a full-fledged mode to earn a degree i.e. online learning. Online learning comprises of both hybrid/ bended learning (comprises traditional face-to face classes, learning over the internet and learning supported by other technologies) and purely online learning is competing course delivery through internet. Due to its flexible and user friendly features, on-line learning has been gaining attention from learners and education institutions. Learning is self-phased and effectiveness of learning is achieved if it fulfils the learners' expectation in imparting knowledge, uninterrupted support from the instructor whenever needed, disbursement of the learning materials, communication and motivation. The objectives of this paper are to study the effectiveness of e-learning compared to conventional classroom learning. The study also shows that major portion of learners cannot set time for study, homework and assignments completion. The institutions along with the routine learning can also include sessions for motivation, sense of accountability and responsibility which may enhance discipline among learners. Significant portion of learners feel that online learning will not enhance sense of belongingness. The institutions can create provision at the campus for the e-learners to meet up occasionally for the interaction between learners and faculties. A portion of E-learners feel that the learning material in e-learning is not effective as that of conventional mode.

Keywords: e-learning; conventional education; class room instruction; learning effectiveness; education institutions;

1. Introduction

The education system and mode of education is changing over the period of time. GuruKul system of education changed to imparting knowledge in a class room setting followed by hybrid learning and at present one new way of learning has emerged as a full-fledged mode to earn a degree i.e. online learning. The covid-19 has been a challenge in every sector in the economy throughout the world. In the education sector major schools, colleges and higher education institutions were not functioned for the past one year. Some of the institutions have come out with the concept of e-learning and are successful in engaging the students in their learning progress. Due to its flexible and user friendly features, on-line learning has been gaining attention from learners and education institutions. Many of the higher education institutions are now accredited from the university Grants Commission (UGC) to start the online degree programs. On-line degree programs are the new phase in the Indian education system. Learning is self-phased and effectiveness of learning is achieved if it fulfils the learner's expectation in imparting knowledge, uninterrupted support from the instructor whenever needed, disbursement of the learning materials, communication and motivation. No-doubt online learning was the savior covid-19 as a temporary option

to keep the learner's learning alive. But e-learning is the prime mode for degree programmers brings the question about its compatibility in fulfilling the learning demands like that of conventional classroom education. Compared to the face-to-face format. Online learning comprises of both hybrid/ bended learning (comprises traditional face-to face classes, learning over the internet and learning supported by other technologies) and purely online learning is competing course delivery through internet. Many literatures point out that online education enable the increase in completion rate, reduce the time to degree attainment, and reduces the cost of postsecondary education. Its effectiveness in educating students, cost effectiveness, professional development and possibility of world class education to anyone with broad band connectivity. Marginal cost of a student in an online setting is negligible relative to traditional setting. The objectives of this paper are to study the effectiveness of e-learning compared to conventional classroom learning. The study is conducted to understand the effectiveness of e-learning over classroom learning. The responses are collected from the students who were undergoing graduation and post-graduation on the conventional mode of education and due to covid-19 pandemic had to learn through online mode and completed at least one semester through online mode. The respondents belong to the institutions around Bangalore city of Karnataka. The responses have been collected from the structured questionnaire through convenience method. This study includes 402 respondents.

2. Literature Review

Distance Education Online an important development, but this is all kinds of distance education not a panic. Specific markets for online distance learning or there are target groups, especially one country like China, this Markets are growing fast. However, broadcast and print based forms of distance education may be important for the coming years for mass-targeted distance education, especially for those excluded from traditional education systems. Perhaps most Mainly There is a strong connection between online learning, new thinking and ways of learning and the Knowledge-based Economy. knowledge-based economy is growing and more as it gains importance, there is also an Effective and Modern Online Distance education system is required. Because of that of the present study is to explore Profiles or self-organized learning skill and there are strategies. According to the strategies, no research has yet explored the existence of Self-Regulated Profiles in learning ability. There are differences (Green & Acevedo, 2007). Self-regulated Learning ability and Student characteristics in strategies have a role while acknowledging that, Green and Acevedo (2007) noted that there is ambiguity how we account these difference. The boundaries of the theory that presents self-regulated learning may be limited to the development of a cyclical or functional process. The mentality of the researchers prevented them from considering the profiles of Skills and Strategies. Purpose of present online learning environment two different models using two studies conducted. It is important to explore the online learning environment Self-Regulated Learning skills and strategies because this environment is said to give individuals more autonomy in their learning, Prerequisite for that self-control. Online learning is a part of the American Education system from long time, the study conducted to find the evidence based effectiveness of online learning. Heterogeneous outcomes of student learning and the endogenous of online learning environment choice are highlighted. The study finds that there is robust evidence to suggest online learning is effective as that of the traditional learning (Tuan Nguyen, 2015). Hybrid courses ensured Cost effectiveness and productivity gains compared to traditional learning (Bowen &Ithika, 2012). The recent pedagogy enabling students to write, answer, learn, share, discuss and learn through MCQs had better learning outcomes and also improved motivation to learn (Feeley & Parris, 2012). The online learner's outcome is better than that of traditional learners Navarro & Shoemaker (2000). Students who are the learners under blended format are better community compared to traditional learning (Rovai & Jordan 2004). The success of online learner is through knowledge generation, collaboration and process management. (Palloff& Pratt, 1998). Collaborative and collective learning pattern are followed in online learning (Khan, 1997). Online teaching Pedagogy, Online learning environment, Emancipatory activities: Convenience, efficiency (time) and autonomy, Co-participatory activities: flexibility, reflective interactions, quality linked learning, interaction, feedback, collaboration of various activities. Infrastructure and design of activities: relevance and scope of content, validity of content, accuracy and balance of content, navigation and aesthetic & affective aspects. (V Chang, 1999). Effectiveness of online education: In many disciplines distance education is as effective as conventional classroom teaching and shows no differences in learning outcomes (Jung &Rha, 2000). Online instructions have led significantly better results on examinations, problem solving ability and learning outcomes (Thompson, 1996). Increased student participation, ability to synthesize information, increased level of interest, mastery over course material, easy access to course faculties and educational experiences. Instructor's and student factors affected the effectiveness of the online courses (Hiltz, 1994). The way the instruction medium is used determines the effectiveness of online learning (Clark, 1983). Instructional Design (flexible course structure, quick and frequent feedback, effective visual layouts and multiple zone of content knowledge (Vrasidas&Mclaac, 1999). Social factors: Interpersonal interaction, social interaction, cognitive processes and significant time engaged in social interchange (Harris and Anderson, 1997) influences online teaching effectiveness. Student's personal factors: The factors such as student's knowledge about technology (Hill &Hannafin 1997), self-sufficiency, less compulsiveness (Biner et al. 1995) individual's autonomous knowledge construction (Bullen, 1998) and actively involvement in the learning process (Hillman, 1999) showed better results in online learning. Cost effectiveness: Distance education can be more effective than the conventional face-to face education. The student enrolment has a direct impact on the cost of online courses. Frequency of course revision, media used, and student enrolment and attrition rate influences the cost effectiveness of online education (Capper and Fletcher, 1996).

There are several assumptions made in assessing the online teaching they are the quality of students' learning is directly, if not exclusively, related to the quality of teaching. Therefore, one of the most promising ways to improve learning is to improve teaching. To improve their effectiveness, teachers must first openly express their goals and objectives, and then gain specific, detailed feedback on the extent to which they are achieving those goals and objectives. To improve their learning, students need to receive early and frequent relevant and focused feedback; they also need to learn how to evaluate their own learning. The type of assessment to improve teaching and learning is that they are designed in such a way that they respond to questions or problems in their own teaching. Proper inquiry and intellectual challenge are powerful sources of motivation, development and renewal for college teachers, and classroom assessment can provide such a challenge. Classroom assessment does not require special training, which can be carried out by dedicated teachers from all disciplines. By collaborating with colleagues and actively engaging students in classroom assessment efforts, teachers improve learning and personal satisfaction. There is much debate in educational institutions about how to best use multiple choice or short answer questions in online contexts, and what kind of accreditation should be established to verify the submission of electronic tasks or the completion of remote exams. However, these strategies seem to contradict contemporary approaches to learning, which support the active participation of the learner and the teacher and enable self-assessment and re-action. Therefore, the challenge for planners and designers is not to determine how they can apply online techniques to evaluation strategies, but at the same time reflect on those strategies designed for the face-to-face environment. As shown in Table 5, the assessment may be directed by the teacher, colleague or student, in which context the manner in which the assessment items are delivered becomes important. The "peer-direct" option provides groups with guidelines for determining and evaluating learning publications, while the "student-directed" option provides specific learning outcomes for individuals to pursue and pursue. In addition, performance real data may focus on new contexts in which performance data is collected, such as workplace environments. As identified in the introduction, online teaching and learning environments have partial characteristics that affect both the teacher and the learner. While the discussion to date has focused on elements of effective evaluation that have an impact on the teacher support or scaffolding, it is also important that similar feedback is provided for support needed for learners working collaboratively and working online the rest of the time. Discussions should be structured in Course design and learning Tied to intentions. Meaningful conversation takes place instructor must confirm. Discussion topics and questions should the syllabus to be aligned. Participating in online discussions must be. Take it the learning experience online discussions are an essential part of why for students Time to explain. Tell us about how students' discussion contributions will be evaluated and how online social participation factors will be at their level. Online courses Takes full time Experts will enjoy Time constraints Agree. Recommend a basic online discussions Time to dedicate. Time management Provide tips. Remember Students must have an intrinsic purpose to fully engage their learning in experience. Who studies that Show lack instinctual motivation will certainly discussions of course to lose interest progresses. The general online discussions Default is that every student should A Discussion Start the thread each Week. However, for this procedure a Leads to noisy Forum. You are done unnecessary Discussion Texts Questionable value - this is a real twist. Rather, note that initial posts or replies require a certain number of thoughtful comments. With thought keep track of or thoughtful Questions and comments, especially if an online discussion needed. Send personal Valuable contributions for students providing Positive news. On the other hand, when students do not put their contributions adequate effort, send them a personal News as well. Your Share observations offer some suggestions How to debate Better access regarding need. Set aside time until they receive personal (and private) training. Studies have found that in classroom discussions, online discussions more students are participating internal thinkers. However, some are still online sneaking into forums Want. They are happy to read, but are as passive participants more likely to exist not comment. If you find a stubborn ambush, this for them Explain trend is hindering their learning experience - and affecting their quality. Post discussion guides the online community, example, ask students answer thoughtfully and ask open-ended questions. Encourage students to have constructive and non-judgmental disagreement. Explain the value of different Perspectives. Challenging each other It's okay to disagree, but only if it is done in a way. The beginning a lesson, an online discussion will take place between the instructor the Students. After a few weeks of leading, assign the role of evaluator to one or more Depending on the students on the Class size. And encouraging conversation their job is to make it easier. Came first, any titles based on the original provided or forums to moderate them Let them choose what they like. Provide guidance to your student evaluators, for example, check out the Community per day X method, at least X questions and X answers. If there is more than one evaluator, ask them to divide the days so that they have time for the week. Scream Throughout the week so students are like you will not realize seen they, but their thunder be careful not to steal. If things are too quiet or everyone agrees too much, say something to express disagreement or argue students with the opposite view Find a hot topic - a message or career development - and have students discuss it. Divide them into two groups. One side presents an argument and the other responds with an opposing argument. Not all business. Personal conversations help students build relationships and a sense of community. This feeling is a motivating factor for continued discussion as time goes on. Also, if students do not have the opportunity to socialize, they may definitely go off topic in discussion forums. You can invite your forum for topic discussions such as Student Lounge, Break Room or Water Cooler. Use this forum for initial introductions. Ask students to share time management hacks and read new conversation. invite a guest expert to visit the online community for a few days. Prepare a running question and answer session or interview by fielding questions from students ahead of time. Encourage students to ask additional questions while the guest is staying. Point out any conversations in the private forum where the guest wants to dive. At the end of each volume, review some of the issues and themes that emerged from the online discussions. You can do this as a weekly video. Provide suggestions for relevant content if students want to go deeper into a topic. Students come to your association for education,

but everyone respects networking and developing relationships members it is one of the main reasons for members to join associations. An online community enhances students' learning experience, as well as the opportunity to connect with their peers.

3. Data collection

Data collected from those who opted for online learning. The students who are perusing their graduation and post-graduation were the targeted respondents. Some of the institutions opted for online teaching due to the corona pandemic and hence this study is conducted to know the effectiveness of online learning from the learner's perspective. The data collected from 403 respondents in total which comprises of 145 female and 257 male respondents.

TABLE 1. Mean and standard deviation

Factors	Mean	Standard Deviation
E-Learning is the same as conventional class room Learning	2.765586035	1.396392752
Very comfortable communicating electronically	3.569651741	1.094704724
E- Learning platform enhances the sense of community/ belongingness with the instructor and fellow class mates	3.019900498	1.319185871
Easy to set aside reading and homework time	3.598503741	1.049236749
Manage my study time effectively and easily complete assignments on time	3.5497512	1.0957922
Lack of community/ Group involvement	3.4800995	1.0830142
Access the internet as needed for the studies	3.629353	1.125286
Online Faculty chat sessions allow students to interact with Faculties effectively.]	3.56716	1.03876
Too challenging e-learning materials	3.15671642	1.09308284
Inadequate on-going support	3.221393	1.058508
Meeting individual learning needs	3.08706	1.27703
Effective communication in the class	3.097014925	1.27043537
Promoting greater student participation and commitment	3.13681592	1.282410375
Limited Tech experience	3.373134	1.059372
Past experience	3.218905	0.994669
Lack o2 Motivation	3.380597	1.113025

Table1 shows the mean and standard deviation of e-learners learning experience compared to conventional classroom learning. Highest mean value is 3.60 which state that the e-learners feel easy to set aside reading and homework time compared to the conventional learning followed by mean 3.57 for e-learners comfortableness in communicating electronically. Least mean score is 2.77 i.e. e-learning is the same as that of classroom learning and it is also having highest standard deviation of1.397 followed by SD 1.32 for e-learning platform enhances community/ belongingness among learners and instructors. Past experience in the e-learning preference is having lowest SD i.e. 0.995. The table 1 dipicts the internet connection type opted by the respondents. 269 respondents opted for wifi connection (67%), 126 respondents used the mobile data for internet connectivity (31%), 4 respondents opted for others (4%) and3 respondents opted for cabled connection (3%). The study show that mejority of the resepondants preferred wifi for the internet connectivity dollowed by mobile data and others and cabled connection.

TABLE 2. Case Processing Summary

		N	%
Cases	Valid	402	100.0
	Excludedᵃ	0	.0
	Total	402	100.0

The study included 16 questions.

TABLE 3. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.841	16

The Cronbach's alpha is 0.841 which denotes the questions internal consistency is fairly high. Cronbach's alpha more than 0.7 is accepted.

TABLE 4. No. of respondents and Type of internet connection

Gender					Internet connection type				
Gender	Frequency	Percent	Valid Percent	Cumulative Percent	Connection Type	Frequency	Percent	Valid Percent	Cumulative Percent
Male	257	63.9	63.9	63.9	Cabled connection	3	.7	.7	.7
Female	145	36.1	36.1	100	Mobile data	126	31.3	31.3	32.1
Total	402	100	100		Others	4	1.0	1.0	33.1
					Wi-Fi	269	66.9	66.9	100
					Total	402	100	100	

Table 4 shows the gender wise classification of respondents. In total 402 responses are collected in the study. The respondents are the college students at the undergraduate and post graduate level from various colleges from Bangalore, Karnataka. The study includes 257 male students and 145 female students. Table 2 depicts the internet connection type opted by the students. 67% of the respondent's internet connection is Wi-Fi, 31% respondent's internet connection is mobile data, 1 % of respondent's internet connection is other type () and 0.7% respondent's internet connection is cabled connection. The study shows that majority of the respondent's internet connection is Wi-Fi followed by mobile data.
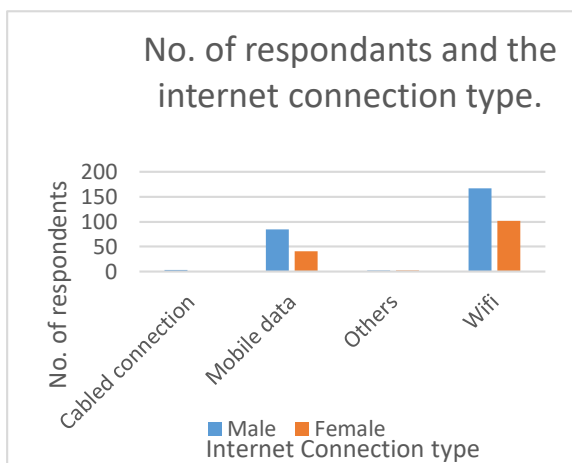
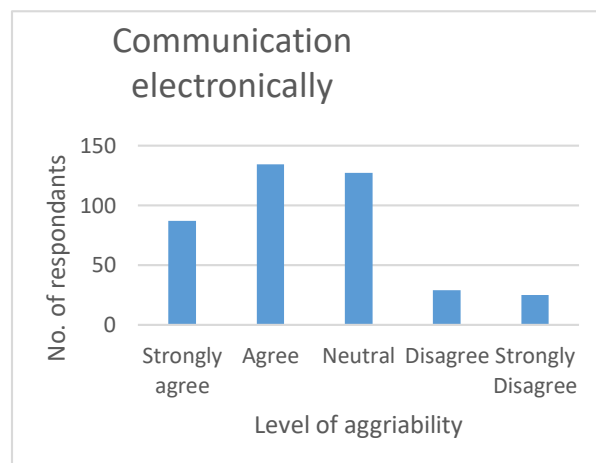**FIGURE 1.** Internet connection opted by the respondents.

FIGURE 2. Comfortable in e-communication

Figure 1 show the internet connection based on gender. Out of 257 male respondents, 65% of their internet connection is Wi-Fi followed by mobile data with 33%. Among 145 female respondents, 70% of their internet connection is Wi-Fi followed by mobile data with 28%. Figure 2 shows the comfortableness in E-learning communication electronically. 55 percent of the respondents agree that they can comfortably communicate online. 31 percent of the respondents have neutral opinion about online communication for e-learning. It must be noted that approximately 14 percentages of the respondents are comfortable with the conventional classroom communication for learning.

Figure 3 shows the allocation of study time for e-learning and on-time the e-learning assignment completion. Over 49 percentage of e-learners agree that easy to set aside study time. 30 percent of the e-learners feel e-learning and conventional learning mode is not different in allocating the study time and completes the assignments on time. 21 percent of the e-learners feel that they are self-disciplined and find it easy to set aside reading time. Figure 4 shows ongoing support for e-learning. Over 39 percent of the respondents feel that the support in e-learning is same as that of conventional mode. Over 38 percent of the e-learners feel that the e-learning support from the instructor is more effective in the learning than the conventional support for learning. Over 23 percent of the respondents doesn't agree with the on-going learning support provided in e-learning platform in the learning effectiveness and therefore we can conclude that they prefer the conventional mode of learning.
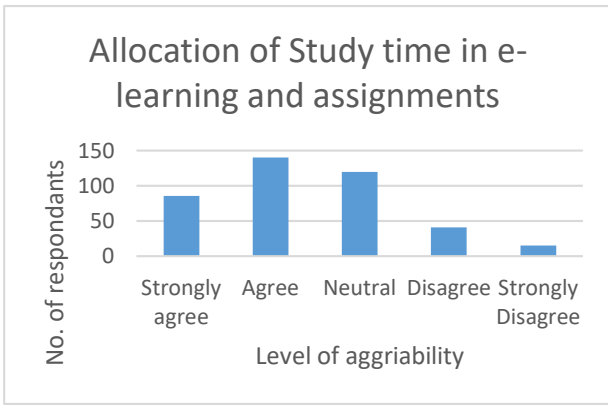
FIGURE 3. Study time in e-learning and assignments
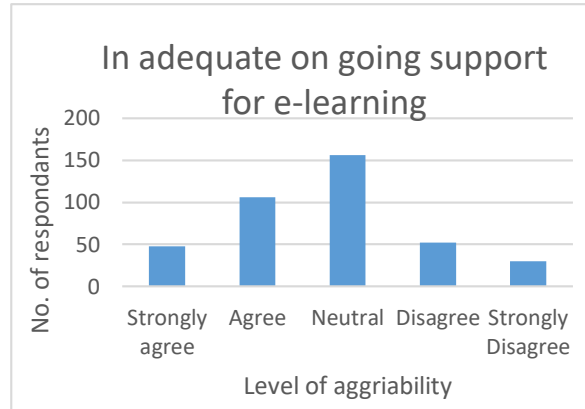
FIGURE 4. On-going support for e-learning.
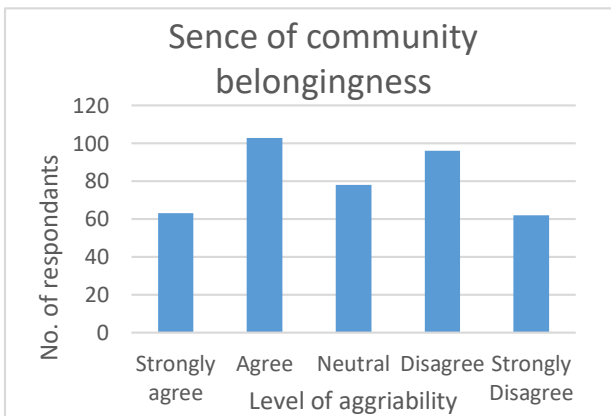
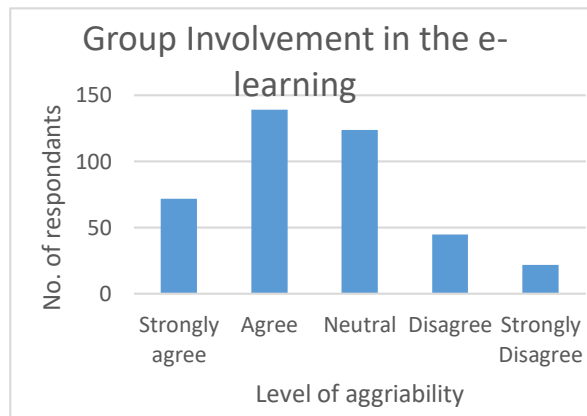**FIGURE 5.** Sense of belongingness among e learners.

FIGURE 6. Group involvement in the e-learning

Figure 5 shows the sense of community belongingness among e-learners and instructor. 41 percentages of the e-learners feel that the e-learning platform ensures better community belongingness among the learners and instructors. 39 percent of the e-learners believe that the conventional class room learning enhances sense of belongingness. 19 percent of the learners are neutral about e-learning and conventional mode of learning. Figure 6 explains the e-learners involvement in the learning platform. 52 percent of the e-learners feel that e-learning platform enhances group involvement among learners. 30 percent of the learners are neutral about the effectiveness of group involvement among the learners. Approximately 16 percent of the respondents don't feel that there is group involvement in the e-learning process. Figure 7 presents the accessing uninterrupted internet for the learning. 60 percent of the respondents are able to access the uninterrupted internet connection thus smooth learning process. 16 percent of the respondents have faced problem in the internet connection while learning thus hampered the learning effectiveness. Over 24 percent of the respondents are neutral about the internet access. Figure 8 shows the interaction effectiveness in the e-learning platform in the learning process through chat sessions. Over 54 percent of the learners feel that the faculty chat sessions are helpful in the e-learning effectiveness. Over 14 percent of the respondents feel that the chat sessions are not helpful in enriching the e-learning effectiveness. It must be observed that about 32 percent of the respondents are neutral about the chat session effectiveness in e-learning over conventional mode.
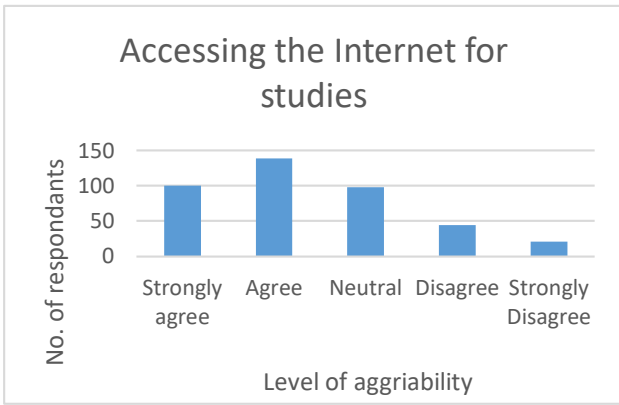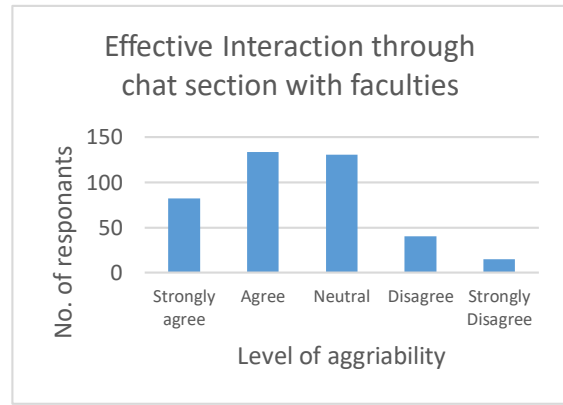
FIGURE 7. Internet access for studies.

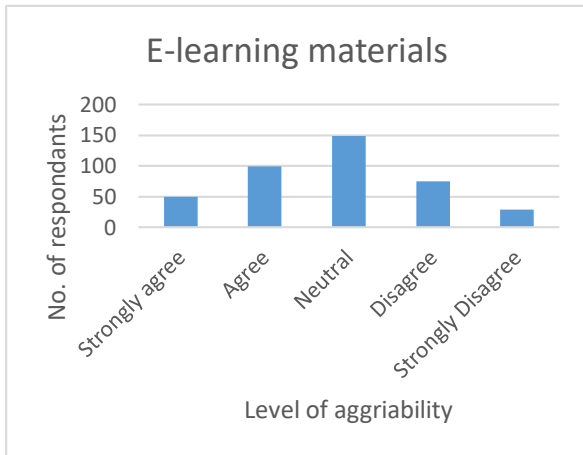**FIGURE 8.** Interaction during learning.

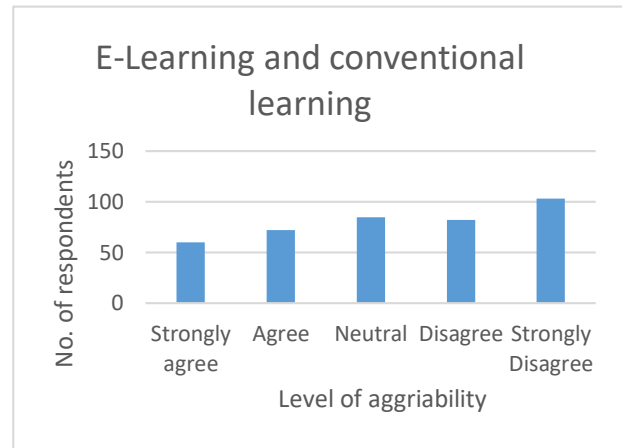**FIGURE 9.** Effectiveness of E-Learning material

FIGURE 10. E-learning & Conventional learning

Figure 9 shows the effectiveness of e-learning materials over the conventional mode. It must be observed that over 37 percent of the e-learners feel the e-learning material is as effective as the reading material provided in the conventional mode. 37 percent of the respondents find that the e-learning material is more effective than the conventional mode. 26 percent of the respondents find the learning material provided in the conventional mode is more effective than that of e-learning platform. Figure 10 explains the opinion among the e-learners about the e-learning platform and classroom learning (conventional learning). Over 33 percent of the respondents feel that the e-learning is better than that of conventional learning due to flexibility in learning, time allocation and comfort. 21 percent of the respondents are neutral about the two methods of learning i.e. they feel both methods are same in terms of learning effectiveness. Over 46 percent of the respondents believe that conventional classroom learning enhances better learning compared to learning through internet.
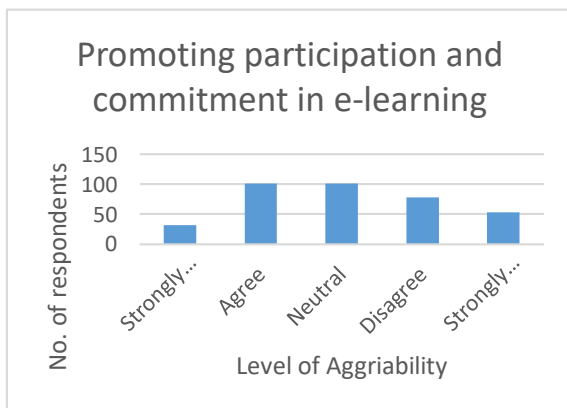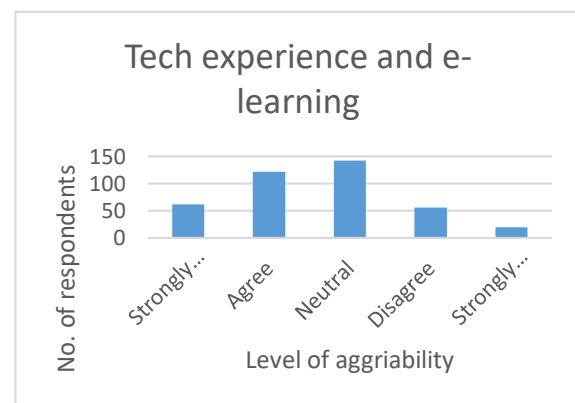

FIGURE 11. Participation and commitment

FIGURE 12. Tech experience

Figure 11 shows the participation and commitment in e-learning. 42 percent of the respondents feel that e-learning platform enhances greater student participation and commitment. 25 percent of the respondents are neutral and 33 percent of the e-learners believe that the conventional classroom learning enhances the student participation and commitment. Figure 12 shows that the e-learning effectiveness based on past tech experience. Over 45 percent of the e-learners believe that the past tech experience positively affects the e-learning experience. 35 percent of the learners are neutral and around 19 percent of the learners complete negate that the past tech experience on learning effectiveness.
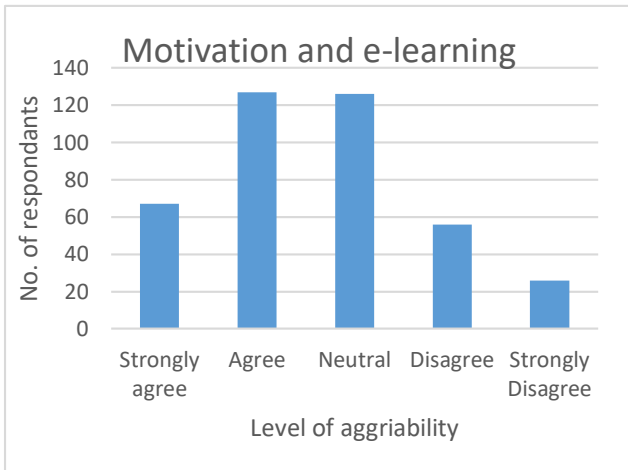
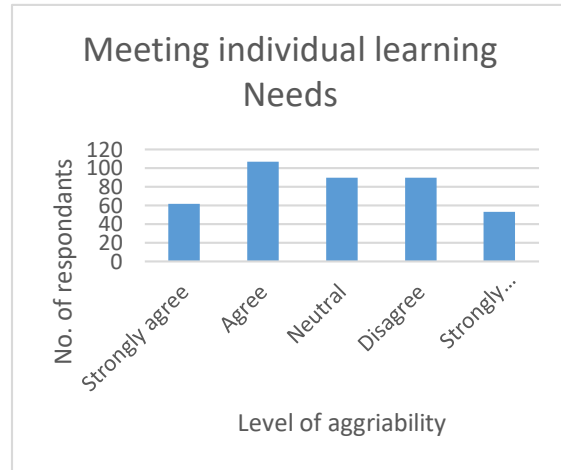**FIGURE 13.** Motivation and e-learning | **FIGURE 14.** E-learning and individual learning

Figure 13 shows the self-motivation for e-learning. 47 percent of the e-learners believe that the self-motivation for learning enhances the e-learning effectiveness. 31 percent of the learners are neutral and around 20 percent of them negate lack of motivation for e-learning effectiveness. Figure 14 shows the e-learning process in meeting the individual learning needs. 42 percent of the learners feel that e-learning platform is meeting their individual learning needs. Over 22 percent of the learners are neutral about e-learning and 35 percent of the e-learners do not agree that the e-learning platform is meeting their individual learning needs.
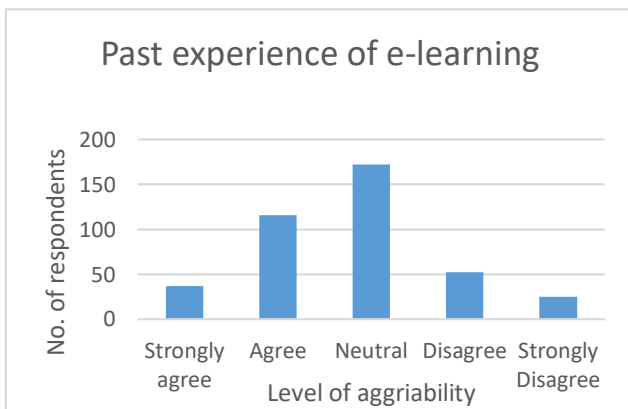
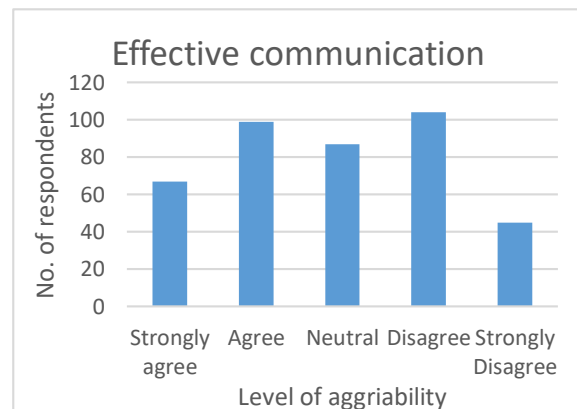**FIGURE 15**. Past experience and e-learning. | **FIGURE 16.** e- learning and communication.

Figure 15 shows the past experience of e-learning and preference for choosing e-learning. 40 percent of the e-learners agree that the past e-learning experience motivated them to choose e-learning. 22 percent of the learners are neutral and 37 percent of the e-learners does not agree with the past experience influence on preferring e-learning. Figure 16 shows the effectiveness in the communication in e-learning platform. 40 percent of the respondents agree with the e-communication effectiveness. 36 percent believe that e-communication is not effective compared to face to face inter-personal communication.

4. Findings

Majority (67%) of the respondents prefer Wi-Fi for internet connection followed by mobile data (31%). 55 percent of the respondents agree that they can comfortably communicate online. Over 49 percentage of e-learners agree that easy to set aside study time. Over 77 percent of the respondents feel that the support in e-learning is same as that of conventional mode. 41 percentages of the e-learners feel that the e-learning platform ensures better community belongingness among the learners and instructors. 39 percent of the e-learners believe that the conventional class room learning enhances sense of belongingness. 52 percent of the e-learners feel that e-learning platform enhances group involvement among learners. 60

percent of the respondents are able to access the uninterrupted internet connection thus smooth learning process. Over 54 percent of the learners feel that the faculty chat sessions are helpful in the e-learning effectiveness. 37 percent of the e-learners feel the e-learning material is as effective as the reading material provided in the conventional mode. 37 percent of the respondents find that the e-learning material is more effective than the conventional mode. Over 46 percent of the respondents believe that conventional classroom learning enhances better learning compared to learning through internet. 33 percent of the e-learners believe that the conventional classroom learning enhances the student participation and commitment. Over 45 percent of the e-learners believe that the past tech experience positively affects the e-learning experience. 47 percent of the e-learners believe that the self-motivation for learning enhances the e-learning effectiveness.42 percent of the learners feel those e-learning platforms are meeting their individual learning needs. 33 percent of the e-learners believe that the conventional classroom learning enhances the student participation and commitment. 37 percent of the e-learners does not agree with the past experience influence on preferring e-learning. 36 percent believe that e-communication is not effective compared to face to face inter-personal communication.

5. Conclusion

Uninterrupted internet enhances the communication. The e-learning institutions must ensure that the e-learners possess good internet connection and device for learning throughout the learning process. Some of the institutions provide laptops and dongles for the students at the time of admission. This method can be followed by the institutions which intend to starts online degree programs. The study also shows that major portion of learners cannot set time for study, homework and assignments completion. The institutions along with the routine learning can also include sessions for motivation, sense of accountability and responsibility which may enhance discipline among learners. Significant portion of learners feel that online learning will not enhance sense of belongingness. The institutions can create provision at the campus for the e-learners to meet up occasionally for the interaction between learners and faculties. A portion of E-learners feel that the learning material in e-learning is not effective as that of conventional mode. Thus, the learning material with supportive videos or audios will enhance better learning and uninterrupted instruction which ultimately ensures better learning effectiveness. Change is inevitable. It takes time and devotion to make a system successful by overcoming the shortfalls. Though the more than 50 percent of the respondents feel that online learning is as effective as conventional classroom learning. It must be observed that there are significant portion of the respondents who believe that the classroom learning is more effective than that of e-learning. This study is an attempt to reveal the challenges in ensuring the effectiveness of e-learning which can guide the institutions to design the programs.

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