STUDENTS ATTITUDE TOWARDS BLENDED LEARNING STRATEGY AT UPPER PRIMARY IN CUDDALORE DISTRICT

RESEARCH PROJECT REPORT

SUDMITTED TO

STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

CHENNAI - 600 006

SUDMITTED BY

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TAMIL NADU
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<p align="center">*CERTIFICATE*</p>

This is to certify that the action research entitled "*STUDENTS ATTITUDE TOWARDS BLENDED LEARNING STRATEGY AT UPPER PRIMARY IN CUDDALORE DISTRICT*" is the independent research   work done   by Mrs.S**.NIRMALA DEVI**,M.Sc.,M.Ed., *Lecturer,* Block Institute of Teacher Education, Manjakuppam, Cuddalore under my supervision at this institute during the period 2023-24 as per the requirement of the State Council of Educational Research and Training, Chennai.

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DECLARATION

I hereby declare that the research project entitled "*STUDENTS ATTITUDE TOWARDS BLENDED LEARNING STRATEGY AT UPPER PRIMARY IN CUDDALORE DISTRICT*" submitted by me to the State Council of Educational Research and Training, Chennai 600 006 is an independent research work carried out under the supervision of the Principal , District institute of Education and Training,Vadalur during the period 2023-2024.

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ACKNOWLEDGEMENT

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CHAPTER I

THE PROBLEM CONCEPTUAL FRAMEWORK

1.1 INTRODUCTION

With the advancement of the technology, the entire world march towards standards of success. The technological development in education runs through a marvelous change in educational system. It combines several domains of learning and also provide ample opportunity for students to learn difficult concepts, practice and access on the available resources. Blended teaching and learning techniques have a great impact in traditional classroom from school to higher education. Blended learning method used in and out of classroom sessions. This enables the performance and competence level of the learner.   In Blended method of instruction personalization of learning have a strong hold. . Through this   way the student's performance improves to their fullest. It is a student centric approach due to the flexible content deliveries.

A move towards digital technology changes the attitude of students and teachers leads to environment friendly approach as well as it also encourages teachers to keep the students more engaged with their teaching. In higher educational systems also students are evolved in contributing more contents over varied deliverable medium and the approach is not restricted to teachers alone. A great collaboration among teachers and students makes the performance level in higher range.

Blended approach promotes the ability to create many activities and complete either before or after the classroom session thus rendering a perfect committed performance. The methods are more beneficial for the learners to focus on high level knowledge and evaluation. With time as a major positive factor the benefit of mastering the subject is more and more in favors towards enhancing the

competence level among the students. Blended approach of teaching-learning not only creates better collaboration among the students belonging to the same group it also encourages among peer groups.

Blended learning strategy integrate content and technique, student able to undertake multitask activities like lecture content, oral instruction, question sessions, online work .Blended methods, combine courses with e-learning with personal interactive lecturer. The curriculum for students towards to their need based - flexibility, independence, diversification and support. Blended teaching-learning strategy provides a positive effect on students grasping capabilities. Videos, forums, online web minors, quizzes, feedbacks and assessment tools aid to enhance the quality in educational domain.

STUDENTS' ATTITUDE TOWARDS BLENDED LEARNING STRATEGY

Attitude is one of the branches of psychology which a study of an individual reaction towards something, either by their physical reaction, feelings, attitudes, and etc., (Abraham, 2011). For many years, many researchers have conducted research concerning human attitudes. One of them, in a book of Psychology of Attitudes, attitude is defined as the expression of psychological tendencies by evaluating a particular object or situation negatively or positively (Eagly&Chaiken, 1993). In addition, (Haddock &Maio, 2008) defined attitudes as an evaluative judgment to make a decision whether liking or disliking towards a stimulus object. Concerning the students' attitude of the use of Blended Learning as the teaching strategy in the class is one of the most common topics to explore. Research conducted by Akbarov et al., (2018) investigates the students' attitudes towards the use of Blended Learning. 162 students have participated in the study, there were 100 females and 62 males. The study was a cross-sectional study by gathering data at a specific time point 154 and correlational study as well to investigate the relationship between various variables to blended learning. In the EFL context, the study found that students prefer Blended Learning to conventional classrooms.

However, the students liked to take an English exam with the pencil-and-paper form than using the digital form. Besides, any conventional teaching approaches or forms of submitting assignments or tests should be retained by the instructor. In the end, the students need to be introduced to the Blended Learning method in the class. This study is also revealed that the students have a positive attitude towards blended learning in the EFL classroom and their learning preferences towards it. The students' attitudes toward the introduction of blended learning in teaching English at Al-Quds Open University in Palestine were investigated in a case study conducted by (Bakeer, 2018). A sample of 60 undergraduate students was split into a control group and an experimental group that received different treatment to assess students' attitudes toward blended learning in English class, the potential of accessible technology to enhance language skills, and students' autonomy. Students' attitudes toward integrated learning in English class, the ability of accessible technology to improve language skills, and students' autonomy were all measured using the results. Students' attitudes toward the use of blended learning in English classes had a positive effect, enhancing students' language skills as well as their ability to learn independently, as well as and their desire to learn in class, according to the results of this report.

1.2 CONCEPTS OF BLENDED LEARNING

Blended learning is a vaible and effective approach to deliver content with high-quality, up-to-date, on-demand learning solutions in the face of diminishing education budgets in higher education, further education or business education (Thorne, 2003; Valk, Seene&Pilt, 2001). So Blended Learning appears to be most acceptable approach for a developing country like India to increase enrolment in higher education within limits of diminishing budget allocation and existing infrastructure. It is also consistent with our culture and ethos and embedded in social context and proceeds in collaborative environment. Moreover a slow and sustainable transformation with traditional value system intact is the dream of our

education planners. Blended learning combines online with face-to-face learning. The goal of blended learning is to provide the most efficient and effective instruction experience by combining delivery modalities. The term blended learning is used to describe a solution that combines several different delivery methods, such as collaboration software, Web-based courses, EPSS, and knowledge management practices. Blended learning also is used to describe learning that mixes various event-based activities, including face-to-face classrooms, live e-learning and self-paced instruction. These technologies have created new opportunities for students to interact with their peers, faculty, and content, inside and outside of the classroom. The goal of blended learning is to join the best features of in-class teaching with the best features of online learning to promote active, self-directed learning opportunities for students with added flexibility (Garnham&Kaleta, 2002). In higher education, this definition of blended learning is often referred to as a hybrid model. The model of blended learning that emphasizes active learning and a reduction of classroom time is based on the concept of hybridization, the bringing together of two dissimilar parts to produce a third result. In the case of an effective blended learning course, these two dissimilar parts are the online and face-to-face classroom components (McCray, 2000). When they are successfully combined, the potential result is an educational environment highly conducive to student learning. The basic principle is that face-to-face oral communication and online written communication are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose.

Figure 1.1

Figure1.2

1.3 CHALLENGES OF BLENDEDED LEARNING

The challenges of offering Blended Learning are:

Managing instructional complexity.

In blended learning the instructor has a wider choice of delivery mediums to combine. With wider choice also comes greater complexity and pressure on the instructor and designer. This is due to the variety of combinations of technology and possibly the lack of patterns to follow for that particular mix. These issues need to be addressed and taken into account during the design.

Designing

Designing a blended learning course that maximizes the potential of both the face-to-face and online components raises questions: What is the best definition of blended learning? How much of each modality should comprise a course? We argue that students and faculty should not view the face-to-face aspect of a blended course and the online element as separate components (Sloan-C). The instructional design perspective requires a re-evaluation of teaching and learning to blend or harmonize the distinction between the two—, made even more formidable by the presence of the new learners (Microsoft Corporation. Higher Education Leaders Symposium).

Managing roles and responsibilities.

Unlike traditional classroom learning in which there usually is a single instructor, in blended learning, there are multiple individuals, each taking a role in the blend. Clarification of instructor and assistant roles is essential for success and the reduction of potential conflict and learner confusion.

Creating a seamless learning experience

Good communications among instructors during planning is an important element in the success of blended learning. It is to be made sure that instructors and assistants communicate with one another throughout the instruction, not only just before the course. All prerequisites are to be met by the previous learning objects as different segments of the blend are designed.

Meeting expectations.

Managing expectations for instructors and learners is also important to realistically perceive the benefits during the training or course. Controlling costs .The cost savings of ICT introduction in blended learning still remains in theory while it seems that the greatest pedagogical advantages of ICT are the most costly:

personalisation, real-time communication and other advanced functionalities lead to significant costs. Other costs may include courseware development costs, incremental capital and recurrent equipment costs, costs associated with provision of appropriate resources, infrastructure costs, maintenance, user support costs, costs of adoption, access costs, security costs, replacement costs and institutional overheads. These costs can be reduced by collaborative organizational structure and internal partnerships. Costs may be cut to significant level through sharing of e-resources among the faculty, students and instructional staff.

STUDENT IDENTIFIED CHALLENGES

The main challenges of blended learning from students' view point are: expectation of less work than in traditional course, lack of time management skills, self responsibility for learning and knowhow to use technology. Expectations of less work: Students new to blended learning initially equate fewer in-person classes to less coursework. In addition, a number of these students do not perceive time spent in lectures as "work," but they definitely see time spent online as work, even if it is time they would have spent in-class in a traditional course .Lack of time management skills: Time management can become particularly acut struggle for students in a blended course where online activities are required to be completed between the face-to-face classes. Self -Responsibility for learning: Students are accustomed to be passive learners in a traditional course. The basic idea of taking responsibility for one's own learning can be very difficult for such students. Initially, they may be unprepared for the active learning role they have to play in a blended course. Knowhow to use technology: Students enrolled in a blended learning course ought to be techno-savvy to access online component of the course and communicate with the faculty for getting assignments checked and problems solved to make learning more effective. But most of students find it difficult to get information from web or to access online component of course or to download big files etc.

FACULTY-IDENTIFIED ISSUES

From a faculty perspective, the key challenges of teaching in a blended format are: (a) the time commitment, (b) lack of support for course redesign, (c) difficulty in acquiring new teaching and technology skills, and (d) the risk factors associated with this type of course (Voos, 2003; Dziuban&Moskal, 2001; Garnham&Kaleta, 2002).

ADMINISTRATION-RELATED CHALLENGES

The following administration related issues are of paramount importance and have to be tackled effectively to make blended learning effective: Alignment with institutional goals and priorities: Twigg (1999) suggested that blended learning can only be effectively implemented only if an institution is committed to improve the quality of the student learning experience in a cost effective manner. This implies that institution has to be committed for fully integrating computing into the campus culture. Barone (2001) added that this goal can only be realized if an institution's leaders act affirmatively through proper resource allocation and necessary policy revision. Resistance to Organizational change: Resistance to organizational change in highereducation is a well documented phenomenon (Twigg, 1999; Barone, 2001). Institutional bureaucracy and inertia can prevent changes in the curriculum, course structures, timetables and new strategies which are critical to the success of blended learning. Lack of experience with collaboration and partnerships: Lack of a collaborative organizational structure and internal partnerships can pose a formidable barrier to a International Journal of Applied Research and Studies (iJARS) ISSN: 2278-9480 Volume 3, Issue 2 (Feb - 2014) www.ijars.in Manuscript Id: iJARS/729 8 Authors Copy; Restricted to Personal Use Only any manipulation will be against copy Right Policy @ iJARS blended learning initiative (Dziuban et al., 2004). Decisions must be made in a consultative fashion and communicated widely for a blended learning model to be successful (Barone, 2001). There must be significant cooperation through

partnerships with students, faculty, instructional technology staff, faculty developers, and administrators to succeed (Twigg, 1999).

1.4 HISTORY OF BLENDED LEARNING

To understand these, however, you must first know how it all got started and thehistorical highlights that shaped its core principles along the way. So, let's hop intothe miniature time machines in our minds and travel back to the beginningof <u>blended learning</u>.

1840's: First Distance Course

Sir Isaac Pitman launches the first distance education course. Though there were other variations on the concept prior to Pitman's, his was to resemble distance learning as we know it today. His course centered on shorthand. Pitman sent shorthand texts to his students via mailed postcards and they were required to send them back to be graded and corrected. Even though computers and mobile devices

weren't involved, and wouldn't even be invented for roughly a century, effective feedback and assessments were still an integral part of the process.

1960's & 1970's: Mainframe Computer-Based Training

Modern computer-based training can be traced back to the mini-computer and mainframe training of the 60's and 70's. It was the first time that training could be deployed to countless workers within an organization without having to rely on printed materials and face-to-face instruction. Employees could simply login to their character-based terminals to access the information. One of the most notable systems was Plato, which was developed by Control Data and the University of Illinois back in 1963. In fact, Plato is still around today.

1970's to 1980's: TV-Based Technology to Support Live Training

At this stage in the blended learning timeline, companies began using video networks to train their employees. The instructor no longer had to be physically on-site in order to onboard new hires or broaden the skill sets of existing staff members. This made the training experience more interactive and engaging. Learners were able to communicate with their peers, watch the instructor on TV, and even address any questions or concerns sending them by mail. Think of it as the predecessor to webinars and video conferencing. One of the most successful satellite-based training case studies is the Stanford University Interactive TV network. Stanford devoted resources to their video network in the 70's and 80's so that professors could hold classes in multiple locations throughout SF at once, and it is still running to this day. Instead of having to send assignments to the professor by mail or courier, learners can now submit their work for review online.

1980's & 1990's: CD-ROM Training and Rise of LMS

As technology evolved, so did blended training strategies and applications. Schools and organizations began using CD-ROMs to deliver more interactive learning

<u>experiences</u>, such as those that feature video and sound. This delivery format could hold larger quantities of information, which made them ideally suited for distance learning. For the first time in eLearning history, computer-based courses were now able to offer a rich and comprehensive learning experience. In some cases, it even took the place of face-to-face instruction. This is also when the first <u>Learning Management Systems (LMS)</u> were introduced, though they didn't offer the same functionality as the solutions available today. Organizations wanted to be able to track learner progress and improve online training courses, and these systems helped to monitor eLearning course completion, enrollment data, and user performance within the CD-ROM network.

1998: First Generation Of Web-Based Instruction

Blended learning, and eLearning as a whole, has seen rapid change in the past two decades, beginning in 1998 with the first generation of web-based instruction. Computers were no longer just for organizations and the wealthy few, but for the masses. More and more households began purchasing personal computers for their families to enjoy, while companies made PCs readily available for every employee. Then computers started to offer greater interactivity. Graphics, sound, and video became more immersive, while browsers increased connection speeds and gave virtually everyone access to internet learning resources. Rather than having to distribute CD-ROMs to learners, organizations could simply upload material, eLearning assessments, and assignments via the web, and learners could access them with a click of a mouse button. At first, many CD-ROM developers tried to simply publish their eLearning courses to the internet without making any modifications. However, they quickly learned that their existing online content, such as large video files that took minutes to download, would need to be finely tuned to meet the needs of web-based learners.

2000 Until Today: Blended Learning Integration

We currently find ourselves in an exciting time for blended learning. Technology is rapidly changing and an increasing number of organizations and private learning institutions are beginning to see the benefits of a blended learning approach. From interactive scenarios in the classroom to webinars and online tutorials, learners now have a wide range of tech tools and applications at their disposal. Companies have the opportunity to train their employees anywhere at any time, while online learners can participate in online communities and interactive eLearning courses from anywhere in the world. Gradually, the union between [face-to-face instruction and technology-based learning](#) is producing new and creative ways to enrich the educational experience and make learning fun, exciting, and even more beneficial.

Blended learning has a proven track record of bringing traditional classrooms into the tech-friendly 21st century. Now that you know the history of blended learning, why not use it to transform your curriculum into an interactive and engaging learning experience.

Searching for ways to start integrating blended learning training

Figure 1.3

Figure 1.4
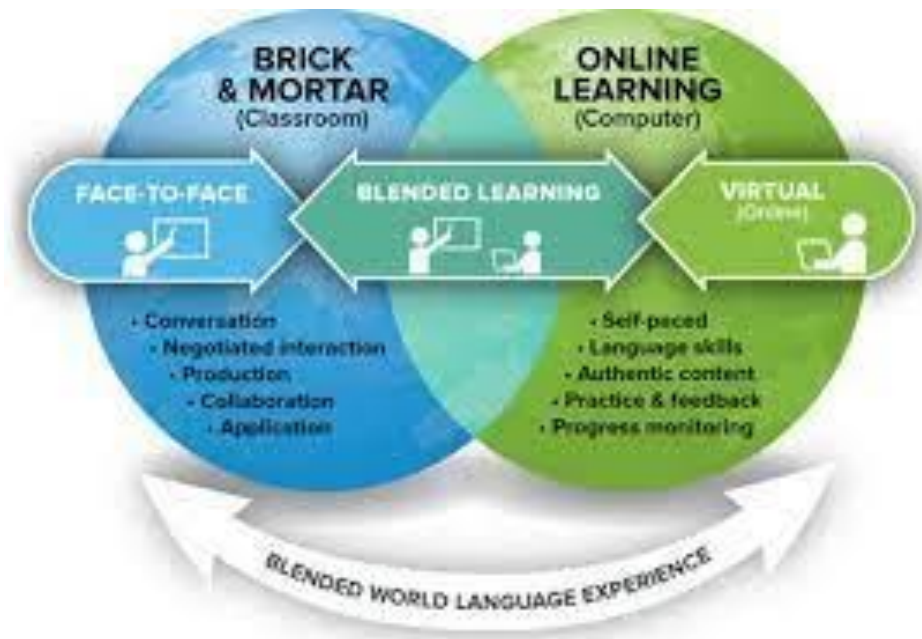
Figure1.5
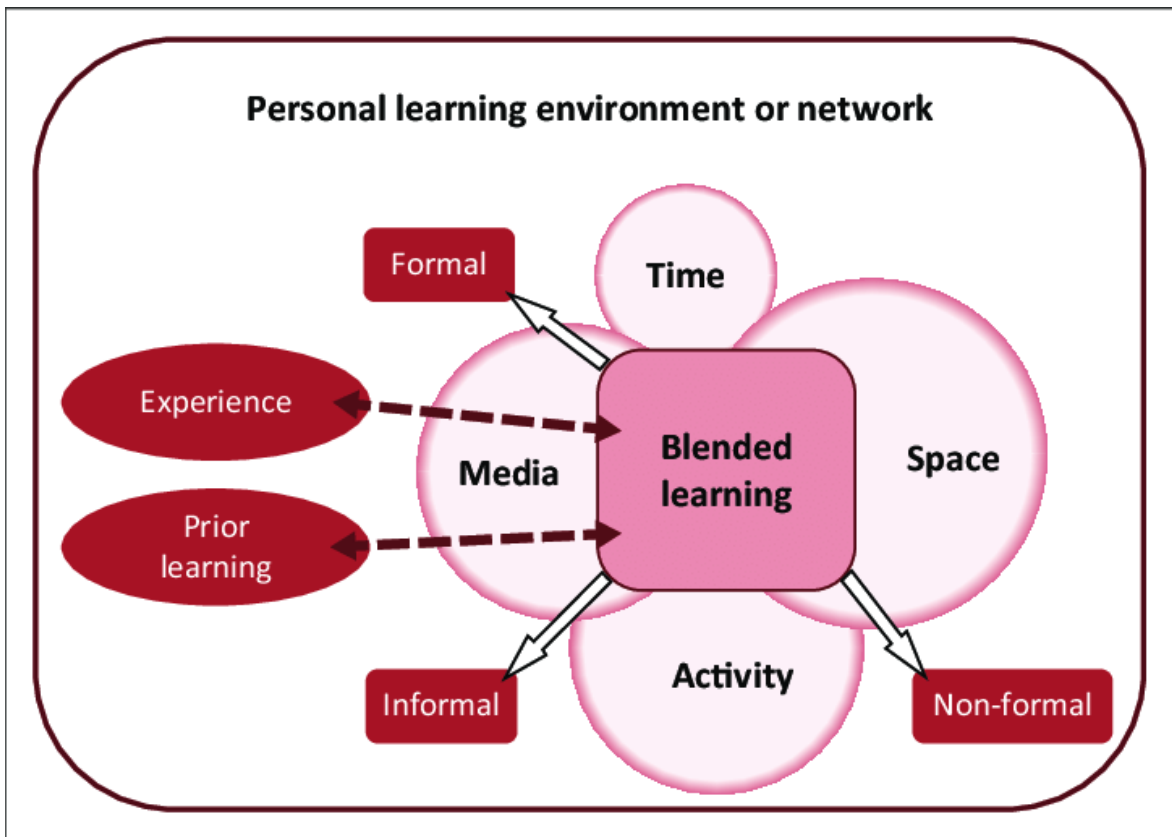
1.5 BLENDED STYLES IN TEACHING-LEARNING

Modules are similar to the outline of activities. Modules provide a clear craft for the framework for designing the modules. The validation of the critical design for blended teaching learning makes sure the goal is reached without any deviation. Blended modules ensure validation, task and response with respect to goal expectation. All blended learning design is scalable based on the activity design.

Models are based on the realistic establishment of the overall approach about learning. Learning does not stand alone without communication in the form of instructions. While instruction contains a series of commands and contents, with the learner's knowledge, environment, and societal contribution education traverse either traditional route or the blended route. The basic philosophical breaks such as perennial, the essential, the progressive and the postmodern aspects have a possible

way affecting the knowledge, truth and the ethics of education methods of implementation. With the need of innovative implementation, the activities related to application and the methods depend greatly on the social and the environmental information where the teaching and learning styles differ from person to person. Model-based blended learning in higher education always contains a course design and models. Several components affect blended learning activity.

Blended courses which is a combination of both online and traditional have different styles based on teaching and learning which form the Importance of Learning Styles in Education explains the role based on learning styles. As learning process contribute to the overall educational environment. The article reviews the reviews of various dimensions of learning styles in an effort to bring to radiance of the contribution belonging to both the learning and teaching process. The article helps educators to develop teaching methods that holds the best match to each learner's learning style. On the bases of understanding the characteristics of learners in each dimension related towards enhancing teaching learning process.

Figure 1.6
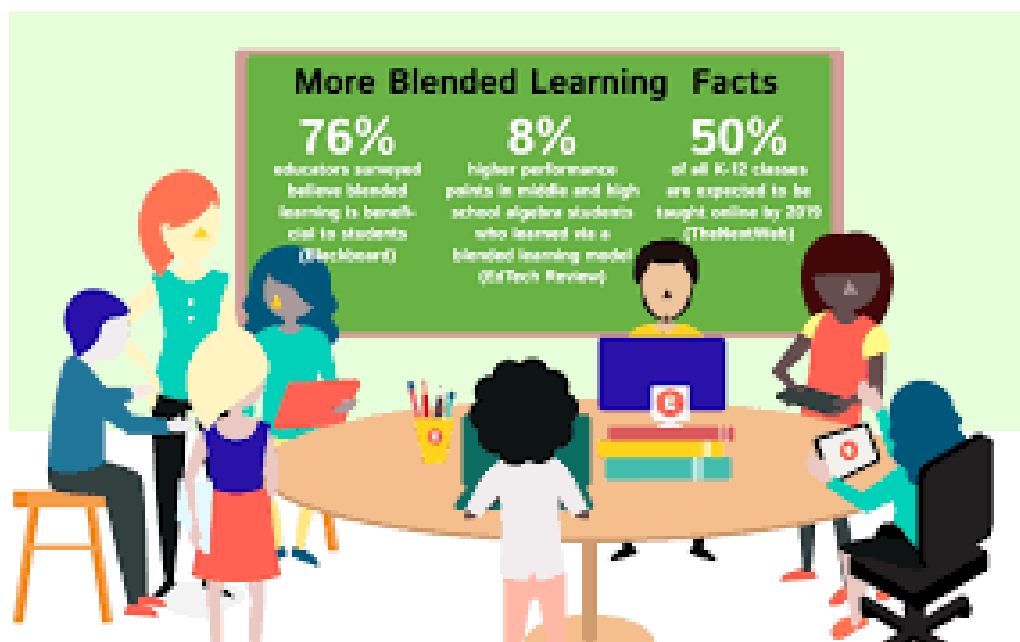
1.6 MODELS OF BLENDED LEARNING

Blended learning does not have specific instructional approach to learners. Educators combine blended learning strategies as numerous instructional models. These models enhance students' competence level. Blended learning also serves as the curriculum delivering method. Through this method many innovative ways to accomplish all instructional goals out of a student learning outcome are established. Personal goals such as methods of course work deliverables, flexi place and pace. Time management facilitating "anytime and anywhere" learning approach is the main achievement of blended learning. Personalizing learning which is according to students' helps in supporting the needs and interests of individual student. Students have possession and conscientiousness for their learning outcome. This results in supporting competency-based succession.

The digital technology has exposed many branches of learning where internet, communication and technology have blended with day to day life. Most of the knowledge is inserted through technology. A blend of instruction from teaching side with the digital source of information for further clarification requires tools for mastery of subject. This is where blended learning impacts the classroom. By using Blended methods for educational deliverables both in campus and off-campus students are benefited.The traditional student-teacher format model by taking education beyond the regular classroom and allowing students to learn anytime and anywhere. Options such as Flexible deliveries, content dependence and core subject, capabilities of the students' form the main focus of the educators for better competence enhancement for students.

Learning off-campus is one major benefits of digital medium. Students are buoyant towards digital technology. Learning is not a standalone it is well diverse in terms of contribution and collaboration. Digital fundamentals are inserted when classroom study is combined with internet based medium. Blended learning has evolved around many textual resources, digital material and perfect pitch of

deliverable medium. Digital technology ropes voluminous data access knowledge assessable is easier.

Added to the data, web related tools along with classical approach requires a methodological resource sharing where the supervised learning aids teachers in delivering all interrelated classroom task while assignment and other mastery of subject are done at students own pace and time. The same teaching and learning aspect can be enhanced in future to produce better competence performance. Recourses can be in any format with plagiarism checked. According to the requirement of the student a tool is selected to master the subject.

Figure1.7
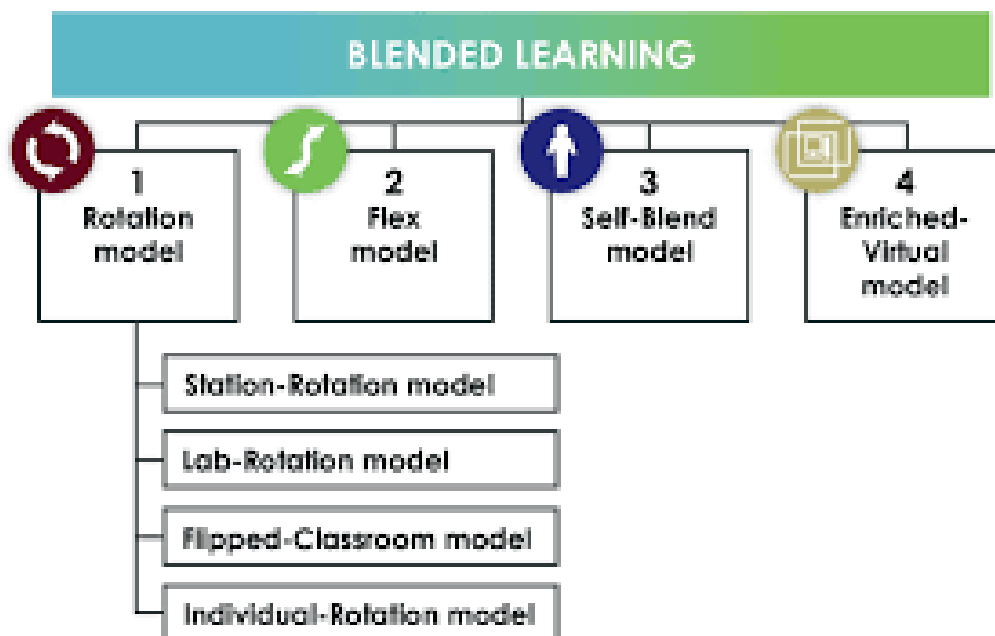
MODELS OF TEACHING TYPES

Teachers are valuable coaches for helping students manage in any learning situation; it is up to teachers and learning designers to offer blended activities that best suit the subject, the learners' needs and the curriculum requirements. Not all unique and interesting BL designs are one-size-fits-all model. Below are seven

sample configurations of BL activities to consider for BL teaching situation. These examples of BL are drawn from higher education but can be shaped to fit any teaching and learning situation.

Blended face-to-face class

Also sometimes called the "face-to-face driver model," the blended face-to-face class model is based in the classroom, although a significant amount of classroom time has 8 been replaced by online activities. Seat time is required for this model, while online activities are used to supplement the in-person classes; readings, quizzes or other assessments are done online at home. This model allows students and faculty to share more high-value instructional time because class time is used for higher-order learning activities such as discussions and group projects.

Blended online class

Sometimes referred to as the "online driver model," this class is the inverse of the blended face-to-face class. The class is mostly conducted online, but there are some required in-person activities such as lectures or labs.

The flipped classroom

The flipped classroom reverses the traditional class structure of listening to a lecture in class and completing homework activities at home. Students in flipped classes watch a short lecture video online and come into the classroom to complete activities such as group work, projects or other exercises. The flipped classroom model can be seen as a sub-model of the blended face-to-face or blended online class.

The rotation model

In this model, students in a course rotate between various modalities, one of which is online learning. There are various sub-models: station rotation, lab rotation and individual rotation. Some of these sub-models are better suited to K–12 education;

station rotation, for example, requires students to rotate between stations in the classroom at an instructor's discretion. Others work well on a college campus; the lab rotation model, for example, requires students in a course to rotate among locations on campus (at least one of which is an online learning lab). In the individual rotation model, a student rotates through learning modalities on a customised schedule.

The self-blend model

While many of the BL models on this list are at the course level, self-blending is a programme-level model and is familiar to many college students. Learners using this model are enrolled in a school but take online courses in addition to their traditional face-to-face courses. They are not directed by a faculty member and choose which courses they will take online and which they will take in person.

The blended MOOC

The blended MOOC is a form of flipped classroom using in-person class meetings to supplement a massive open online course. Students access MOOC materials - perhaps from another institution or instructor if the course is openly accessible - outside of class and then come to a class meeting for discussions or in-class activities. In 2012, San Jose State University piloted a blended MOOC using MIT's Circuits and Electronics course, with students taking the MOOC out of class while face-to-face time was used for additional problem solving.

Flexible-mode courses

Flexible-mode courses offer all instruction in multiple modes - in person and online and students choose how to take their course. An example of this is San Francisco State University's hybrid flexible (HyFlex) model, which offers classroom-based and online options for all or most learning activities, allowing students the ability to choose how they will attend classes: online or in person.

1.7 FEATURES IN BLENDEDLEARNING

• **In Micro-Learning** – lessons are delivered as short and tightly coupled manner with perfect deliverable contents and activities. This method proves to render a complete subject wise knowledge.

• **Using Mobile-Learning** – The evolution of communication medium has been used by educational sector more effectively by serving anytime and anywhere study concept. Smart phone has become a replacement for personal computers to read the contents as learner's time schedule and place.

• **Credits** – Another way towards motivating students' learner behavior is through credit based system which aids students to pursue more online material to add credits to their mastering capacity.

A perfect digital platform forms a bridge between content and instructional structure in creating a unique and plagiarism free deliverables. • Course Repetition Technique –Digital learning has a flexibility of learning anything and anywhere concept. The collaboration and the course repetition techniques enable better digital learning experience. Out of these features the model can incorporate credit based method to motivate students, it also has a best-fit course platform and course repetitive techniques which benefits the students in achieving competence goal.

The knowledge, typical problem-solving skills and better implement pooling requires a lot of teamwork. Technology partially plays a role in moulding both learners in terms of supporting learning styles as well as teachers in ways and means of verifying enormous information. Students as such require different form of interactions. Some students may require having either regular feedback or action monitoring to improve their performance while some students may be comfortable in their own style of learning without any supervisory support. Blended model has personalized learning facilities, which can be used for any type of learning.

With the inclusion of technology in every area insisting on integrating with personal interaction, a benefit to many domains In educational domain it is used as one of the important methods to enhance the teaching-learning. Digital age increase more career expansion, employability and study leading towards extraordinary outcomes. Digital courses curtail the problem of dropout in higher education thereby providing a well engaged plan of action. It also provides the degree of flexibility and does not pressurize learners to acquire knowledge. A well planned and stress-free curriculum motivates students to have much clearer vision based on topic/subject.

Blended method of teaching-learning in competence-based model helps in constructing an implicit classroom where technological transparency is done. By using digital platform for educational domain, a flawless and effective feedback mechanism along with proper assessment, evaluation technique enhances the quality in communication. A well-tailored material such as videos, contents, worksheets and also as images holds good for meta-cognition when combined together with various e-material resources.

Most deep-seated and important of digital learning is the approach of blending together traditional method of teaching close digital material. With the available support tools towards competence enhancement and other varied aspects based on students' contact, edge, indispensable assessment and improved innovative opinion; the digital media have a strong adaptation of generating competence among the learners.

At present, scenario the digital skill depends mostly of the knowledge based activities. These activities utilize technology with only one glitch which is, all activities must be embedded inside the work are domain area (which is the current digital skill is applicable). Every technology needs an integrated evaluation method through a strong knowledge base referring each subject area are referred. Technological aspect does not stop there it is also responsible for creating.

• Awareness of digital skills that are used in many workplaces

• The different digital teaching formats

• Creation of unique digital identity and managing the information

• Level based content and

• Collaborating all the digital content among peer groups.

Technological help much competence blended model teachers to expand beyond stereo typed liner method. Inclusion of technology in the form of digital simulation and models help teachers in rendering any complex content easily to students. The presence of various study tools and other study software's helps learners to understand clearly through virtual mode of deliverables. The involvement of interactions among peer groups for better knowledge transfers is only possible through digital platform. The inference for teaching-learning approaches for varied styles of teaching and learning in competence model approach tries to explore blended method in educational domain to the fullest to satisfy the needs of students for better competence in higher education

1.8 NEED AND SIGNIFICANCE OF THE STUDY

The Education system always march towards the advancement of technology where it result to greater change to the present learners adopting the blended teaching learning strategy breaks down the traditional way of teaching. It boosts the learner's interest, engages in the activities and improves the learning outcome. It also promotes classroom interaction. Blended teaching and learning process ensure the joyful learning. This approach is very flexible, easy to access internet, E learning, learning through videos, through online meet etc., and this teaching style is based upon the content. It bridges the gap between the teachers and students. Teachers engage the students in the innovative practice in their classroom. Hence the present study will reveal the attitude of   students towards blended teaching

strategy. It also supports the development of technology for a better experience in the teaching learning process.

1.9 STATEMENT OF THE STUDY

The researcher intended to do a study on *"Students Attitude towards Blended Learning strategy atupperprimary in Cuddalore District".*

1.10 OBJECTIVES OF THE STUDY

1. To study the level of attitude of students towards blended learning strategy at upper primary in Cuddalore District

2. To find out the significant difference betweenthe mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to gender

3. To find out the significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect tolocality

4. To find out the significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to type of management

5. To find out the significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to parents educational qualification

6. To find out the significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to parents income

1.11 HYPOTHESES OF THE STUDY

1. The level of attitude of students towards blended learning strategy at upper primary in Cuddalore District is moderate

2. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to gender

3. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect tolocality

4. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to type of management

5. There is no the significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to parents educational qualification

6. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to parentincome

1.12DELIMITATIONS OF THE STUDY

1.The study is limited with 11 blocks in Cuddalore District.

2. The study is restricted to the students studying in VIII standard.

3. The study is limited to middle school students.

4. The study is limited with 359 Govt. and Govt. Aided students.

1.13 SUMMARY

This chapter summary holds the discussion about the various models and environment based upon blended teaching and learning. The summary clearly explains the positive aspects of blended curriculum when introduced as personalized learning method to improve the quality in higher educational domain. The teaching and learning styles differ from individual to individual. Inculcation of the digital media presence to improve the stages of blended learning and the supporting reports are discussed very clearly. Several advancement using digital approach teaching-learning technologies, an exceptional opportunity, impacting learning is achieved and competence among learners in higher education has also been enhanced. The main goal is to allow individuals to master and improve performance digital intervention at a great medium. The level to which online approach takes place, and integrated into the curriculum varies drastically.

CHAPTER- II

REVIEW OF

LITERATURE

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REVIEW OF LITERATURE

2.1 INTRODUCTION

Literature review provide a foundation of knowledge on a topic .Identifies areas of prior scholarship to prevent duplication and give credit to other researchers and also identify the inconstancies: gaps in research, conflicts in previous studies, open questions left from other research .A vast search on the need for additional research and the relationship of works in the context of their contribution to the topic and other works , to place the research within the context of existing literature, making a case for why further study is needed.

Literature reviews can take two major forms. The most prevalent one is the "literature review" or "background" section within a journal paper or a chapter in a graduate thesis. This section synthesizes the extant literature and usually identifies the gaps in knowledge that the empirical study addresses. It may also provide a theoretical foundation for the proposed study, substantiate the presence of the research problem, justify the research as one that contributes something new to the cumulated knowledge, or validate the methods and approaches for the proposed study.

The second form of literature review, which is the focus of this chapter, constitutes an original and valuable work of research in and of itself. Rather than providing a base for a researcher's own work, it creates a solid starting point for all members of the community interested in a particular area or topic The so-called "review article" is a journal-length paper which has an overarching purpose to synthesize the literature in a field, without collecting or analyzing any primarydata .

Review of literature also reveals techniques and statistical procedures that have not been attempted by others. To accomplish review of literature, you need to locate,

read and evaluate research documents, reports as well as thesis and other sources of academic materials. Review done for one particular research process must be extensive and thorough because you are aiming to obtain a detailed account of the topic being studied. Normally, the emphasis and weight are heavier for PhD work since the results of PhD should be novel and narrowed down to a very specific research problem.

2.2 Studies on Attitude towards Blended Learning

Balan, Anna &Montemayor (2021) Theinfluence of online learning on attentionspan and motivation has been the subject of recent study, but there have been nostudies that have examined the relationship between all three elements. This studylooked at the impact of online learning on college students' attention spans andlevels of motivation, and the results were promising. It was possible to gather datafrom 253 college students from Metro Manila and the Calabarzonregion via theuse of Google Forms. They used the McVay Readiness for Online LearningQuestionnaire, the McVay Academic Motivation Scale College Version, and theMoss Attention Rating Scale to assess their students' readiness for online learning.It was decided to use statistical tests such as correlation and one-way analysis ofvariance to analyse the data acquired (ANOVA). Respondents' attention span ispaired with their readiness for online learning, however, the results indicate that there is no statistically significant difference in their levels of motivation when they are categorise according to their readiness for online learning, according to thefindings. Future studies should examine the differences between asynchronous andsynchronous methods of online education delivery, as well as other factors such asthe instructor's method of teaching and the students' year level, in order to obtainmore accurate results in determining the impact of online learning on the attentionspan and motivation levels of college students.

Law, Mei Yuan (2021) During COVID-19 in Malaysia, this research intends tolearn about university students' attitudes and satisfaction with online

learning.Students from a Kuching university were polled on their attitudes and satisfactionwith four key aspects of their emergency remote learning experience, including thelearning materials they used, the assessments they took, the communications theyhad, and the technology they used and the support they received. Results from thisresearch demonstrate that students are generally pleased with the online learningexperience. According to the findings of this research, educators may use aninstructional pedagogy approach and the right integration of technology resourcesto guarantee that students get quality education during the current COVID-19epidemic.

Gautam, Dhruba&Gautam, Prakash (2021) Following the outbreak of theCOVID-19 virus, hundreds of educational institutions throughout the globe haveclosed their doors, ordering their students to remain at home and avoid exposure tothe virus. Nepal is not an exception to this rule. This study examines the factors thatcontribute to the efficacy of online learning for students who are enrolled intraditional on-campus courses in order to gain a better understanding of faculty andstudent attitudes toward online learning during the COVID-19 epidemic. The Findings will be used to inform future research. In this exploratory research design,a combination of qualitative and quantitative methodologiesare employed. To geta comprehensive understanding of the phenomena, a three-stage data collectionapproach was used: a preliminary interview, a structural survey, and validation. Inthis study, it was discovered that there were three variables that contributed to theeffectiveness of online classes during a pandemic: infrastructure, students, and theteacher. When online teaching and learning is supported by the appropriatetechnology, infrastructure, and staff and student views, it may be more effective. Aincreased willingness to learn during the COVID-19 outbreak lowered students'levels of worry, and this was especially true throughout the epidemicOriginality/value. This study makes significant contributions to the development ofonline and in-class teaching and learning strategies, which will be useful in theadministration of higher education in the future.

Cranfield, Desiree & Tick (2021)A significant impact of the pandemic andsubsequent "lockdowns" was the drastic alteration of the educational environmentin colleges. Traditional institutions had a variety of instructional delivery choicesto select from prior to the implementation of COVID-19. In an instant, traditionalschools and universities were forced to pick between just one distribution techniqueout of many options. When all services were relocated to digital platforms, a"emergency" period of "e-learning" ushered in by the government. All students,regardless of their age, are still uncertain about the long-term consequences of this fast shift to digital media technology. A certain amount of disruption was almostexpected to be experienced by students attending traditional schools anduniversities in particular. Consequently, each nation's lockdown protocols and theUniversity's location were distinct in that this disruption occurred only in thatcountry.The perspectives of higher education students on emergency eLearning during theCOVID-19 pandemic were examined as part of an international, comparative, andquantitative study effort to better understand their perspectives. It was decided toinvestigate the viewpoints of university students from three different countries ontheir individual learning settings as well as their engagement, participation choices,and effect on future job possibilities. According to the findings of the research,students at the participating universities had quite varied experiences. According tothe results, the most significant differences were found to be in the variables "homelearning environment," "engagement," and "assumption of effect on learningcapacities." There are considerable differences in the 'home learning environment'across the three countries that were surveyed: South Africa, Wales, and Hungary,according to the findings. Final analysis reveals that students from a variety ofcultural backgrounds demonstrate a wide range of interest, participation, andlearning capacities.

LalinAbbacan-Tuguic (2021) The Kalinga State University began using ablended/Flexible learning strategy in the middle of the second semester of

theacademic year 2019-2020. Using a variety of technology platforms, this researchexamines students' attitudes and aptitude for learning in order to identify theircapacity to adapt to a blended learning environment. With the help of 508 Googleform questionnaires and 25 virtual interviews with 25 interviewees, the researcheranalyses the survey data quantitatively and qualitatively and then merges the twosets of results to examine how students' attitudes and readiness for blended learningconverge and diverge using the convergent parallel-side by the side mixed-method.As a consequence of combining the data from the two databases throughout the interpretation process, it was discovered For example, poor internet access mightlimit the success and effective application of blended learning adaptation, which iscovered under "Technological Lapses." Students demonstrated a modest degree ofpreparation for blended learning and a favourable attitude. There is a negativeassociation between students' attitudes and their preparation for mixed learningenvironments; on the other hand, Closed-ended question findings werecorroborated or verified by replies to open-ended questions and virtual interviews.

Al-Jardani, Khalid (2020) Aspects of E-learning are discussed in the study,including its definitions and key components. Among them are the student'smotivation, the learner's attitudes, the technology, and the readiness of materials,followed by the main difficulties and possibilities for implementing E-learning inhigher education. Oman is mentioned in the study, as well as other countries wherestudents' views on e-learning have been studied. There has to be more effort putinto developing a proper combination of conventional and E-learning before relyingonly on E-learning in the context of the Coronavirus.

HyseniDuraku, Zamira&Hoxha, Linda (2020) Education systems throughoutthe globe have been disrupted by the shutdown of educational institutions as aprecautionary step against the spread of COVID-19. Several elements are thoughtto impact the quality of remote or online learning, instructors' performance

andstudents' knowledge and abilities, even if the practise of changing learning to anonline format has already become standard in many educational institutionsworldwide. As a result of the study's results, this chapter outlines the difficultiesthat educators, parents, and students have while participating in distance learningusing COVID-19. Some 13 parents and 11 instructors from pre-university publicinstitutions in 14 towns throughout seven regions of Kosovo participated in semistructuredinterviews. Researchers found that students, parents, and instructors areconcerned about evaluation, distant learning insufficiency, and student overload asa result of COVID-19. In addition, there are ideas for ways to improve educationand the support of educators, parents, and families for those who work in the areaof education.

Unger, Shem &Meiran, William (2020) COVID-19 was used to gaugeundergraduates' opinions regarding moving quickly to an online learningenvironment. On the other hand, surveys were conducted to examine the views ofinformation in the media as well as the degree of concern about distancelearning, understanding of disease outbreaks, and readiness during the 2020epidemic. A poll of 82 Wingate undergraduates was conducted during the first twoweeks of the COVID-19 2020 crisis, when students were able to return to schoolonline from off-campus for the first time since the crisis began. According to thesurvey results, the vast majority of students (91.5 percent) believe that onlineeducation is not equivalent to classroom instruction. There was a significantdifference in students' perceptions of how well-informed they were on COVID-19between traditional news sources (e.g., TV, newspapers) and social media (t-test =3.78; p 0.001). 75.6 percent of students expressed some degree of fear about swiftlytransitioning to online classes, with 84.2 percent actively discussing diseasetransmission and just 64.6 percent feeling adequately prepared for emergencyscenarios. Student opinion was overwhelmingly in favour of the university'sprecautionary measures (which included relocating students off campus

and forcingthe balance of their semester to be completed through online distance learning).

Most students expressed fear about online learning, unhappiness with thegraduation ceremony, and the fact that online learning differs from traditional inclasslearning in a broad variety of ways in their replies to the poll. While thenumber of students who said they felt less anxious about online learning after threeweeks (51.4% Yes: 48.6% No) increased, the number of students who said they feltanxious about distance learning remained high.

Sharma, Khushboo&Choudhary, Ashok (2020) This century's challenges, suchas the pandemic COVID 19, necessitate that schools, at all levels and under avariety of conditions, have adequate technical assistance in place to ensure that' students receive an adequate education and learning foundation, as evidenced bythe findings of the research. Through the use of new technology, the administrationof schools may be enhanced and the teaching learning continuum engaged.According to the findings of the study, students' knowledge of ICT has no effect onwhether or not it should be used in schools, but it does have an effect on whetheror not they favour its deployment in schools for improved school administration.

Mardiana, Harisa (2020) A primary focus of the author's research is on theattitudes of professors regarding online education in the classroom, which is acritical component of preparing students for the knowledge economy of the twentyfirstcentury. Educators in the Tangerang City region tend to be resistant toembracing new technologies; many speak with stuttering and lack basic computerliteracy. Although professors still prefer face-to-face instruction, more universitiesare making Moodle available for students to utilise. Learning has shifted to elearningin the wake of the outbreak of Coronavirus. More than 100 professors fromTangerang City were asked to fill out a Google Form and disseminate it to theirstudents in Tangerang City over WhatsApp in order to gather

data for this study.Frequency and linear regression are used to analyse the data. The study found thatinstructors shifted their focus to e-learning, whereas the other 27 lecturersfavoured conventional methods of teaching and wanted to stay in the classroom.

Koneru, (2019) published a research article entitled that the effect of BlendedLearning environment on teachers' course design and instructional Practices.Thispaper divulged the perceptions and experiences of the 21 blended learningmethodology teachers gathered through semi-structured personal interview and selfreflectionjournals. The study adopted qualitative approaches to collect data. Thescope of this research paper was limited to analyzing the blended teachers'experiences with course design, development and delivery. Further, it shares theperceptions and experiences of teachers who adopted blended learning. Facultyinterviews were slated using the scheduling feature of the Moodle Scheduler plugin'sgroup, which permitted the researcher to add appointment slots. The study concludedthat the blended learning teachers' perceptions about designing and delivering theblended course helped them in: (i) planning and incorporating offline and onlineevaluations and activities, (ii) enhancing students' learning experience withmultimedia resources, comprising open educational resources (OER); (iii) acceptingflexible and innovative teaching practices; (iv) developing communication andinteraction with students; (v) cultivating digital literacy etc. Further, the study resultsrevealed that Blended Learning environment was very effective and was providedwith a variety of options for instruction and refining teachers pedagogical practices.

Alsalhi, Eltahir& Al-Qatawneh, (2019) found the effect of blended learning onthe achievement of ninth-grade students in science and their attitudes towards its use.This study intended to explore the effects of blended learning on ninth grade learners'academic achievement in science and their attitudes towards using Blended Learningmethods. The study compares the results of different ways of

teaching science topics,and learners' attitudes towards their usage. A quasi-experimentaldesign case studywas utilized in this research. The samples of the research were 112 students, allocatedinto two groups: one an experimental group (n=61) and the other a control group(n=51). An achievement test questionnaire was designed to ratify the study's validityand reliability. SPSS was utilized to evaluate the data. The findings showed that therewere significant differences between the experimental and the control groups, infavour of the experimental group, and the experimental group samples'attitudes werealso more positive towards the utilizing of blended learning. Their attitudes were infavour of students with academic performance in science subject of the Performancelevel (Pass). The study commends further research into the use of blended learning inhigher education institutions.

Putri and Hendawati (2018) conducted Blended project-based learning:strategy for improving critical thinking of pre-service teachers in science education.The main purpose of this study was to examine the effectiveness of blended project basedlearning to progress the critical thinking of pre-service teachers inscience education. In this research context, the teacher and students were completedthe multimedia project using various software and discussed the project and theconcept by face-to-face and e-learning sessions. The contents of the multimediaproject were evolved based on science unit on the topics of Anatomy and Physiologyof Human, Animal and Plant. The methodology of this research was a mixed-methodwith embedded design. The Teacher and students at Primary School TeacherEducation atthe Indonesia University of Education, Purwakarta campus considered asthe samples of this study. The data were collected using observation sheet and acritical thinking test. The result revealed that the students had good activities in faceto-face session and e-learning, and the critical thinking developed after the executionof blended project-based learning method.

Kho et al. (2018) made a study on implementing blended learning in emergencyairway management training: a randomized controlled trial. This research was carriedout to assess its effectiveness in the course of emergency airway managementtraining. A single-centre probable randomized controlled trial engaging thirty doctorsfrom Sarawak General Hospital, Malaysia was conducted from September 2016 toFebruary 2017 to evaluate the effectiveness of blended learning (BL) against face-tofacelearning (F2FL) for emergency airway management training.Researchsamplesin the BL arm were given a duration of 12 days to instruct through the onlinematerials in an LMS while those in the F2FL arm attended a-day of conventionalface-to-face lectures. Pre- and post-tests in knowledge and practical skills were tested.E-learning experience and the perception towards BL among learners in the BL armwere also appraised notable developments in post-test scores as comparedtopre-testscores. Pre-test and post-test scores were noted for the learners in both BL and F2FLarms. The research clearly expressed that blended learning was effective than face-to70face learning for emergency airway management training. The general perception of blended learning was significantly positive.

Lam, Hew and Chiu (2018) aimed to improve argumentative writing effects of ablended learning approach and gamification. This study aimed to investigate theeffectiveness of a blended learning approach, which involved the thesis, analysis, andsynthesis key (TASK) procedural strategy; online Edmodo (LMS) discussions; onlinemessage labels; and writing models - on student argumentative writing in a HongKong secondary school. It also assessed whether the implementation of digital gamemechanics improved student online involvement and writing performance. In thisstudy, 3 classes of Secondary students were contributed to the 7-week study. In themethodology context, the first experimental group used the blended learning andgamification approach; the second experimental group used only the blended learningapproach; finally, in the control group, a teacher-led direct-teaching approach on thecomponents of argumentation

was administered. Data gathering sources includedstudents'onlineEdmodo postings, learners' pre- and post-test written essays, andstudent and teacher interviews. Study results found a significant enhancement in students writing using the blended learning approach. On-topic online participationswere positively higher when gamification was adopted.

Elian and Hamaidi (2018) explored the effect of using a flipped classroom

strategy on the academic achievement of fourth-grade students in Jordan. Particularly,it found out the impact of the traditional and flipped classroom strategies on theacademic achievement of students, and the study pointed out the impact of students'gender on the academic achievement in a science subject. The study samples groupedinto two groups of which one group comprised of 22 students in the control group hadstudied in the ordinary conventional method and the other group comprised of 22students in the experimental group had studied in the flipped classroom method. Inthis study, a pre and post-tests quasi-experimental design were used in theexperimentation stage. After the analysis, the results explained that experimentalgroup students got higher scores in the academic test than the control group students.Besides, there were no significant differences between male and female students inthe academic test. Based on the study findings, the study suggested supporting andmotivating the science teachers to instruct learners manipulating teaching-learning strategies originated from the use of modern technologies like flipped learningstrategy

Ginaya, Rejeki and Astuti (2018) studied the effects of blended learning onstudents'speaking ability. Investigators framed two questions i) Is there anysignificant improvement in the student 'speaking scores in control and experimentalgroups in the post-tests? ii) Are there any significant differences between the control and experimental groups in the post-tests in relation to the implementation of blendedlearning? The quasi-experimental research method was followed in this study andstudents were separated into experimental and control

groups. The control groupentertained the traditional teaching model such as presentation, practices andcommunicative abilities only, and the experimental group entertained the WebQuestproject tasks implanted in a modified conventional teaching-learning method. Samples were 27 males and 24 females registered in a diploma program in Tourismand Travel Business at a Higher education institution in Bali. Two types of measuringinstruments were used to collect data, like i) teaching diary and observation sheets, ii)test and questionnaires. The results gathered from the pre and post-tests of the controlgroup were assessed by paired t-tests and mixed design ANCOVA. Besides,qualitative data was analysed through observation and the result of questionnaires.The research concluded that the learners engaging in the treatment were positivelyenhanced in terms of English speaking ability, and the improvement was also assistedby their developed learning interest and motivation.

Coll and Treagust (2018) conducted a study on the blended learning environment:an approach to enhance students' learning experiences outside school (LEOS). Theaim of this research was to establish how the learning of science in out of- schoolsettings might be enhanced by the use of an integrated online learning model. Themethodology administered in this inquiry was a qualitative case study approach, inwhich manifold interviews and observations were conducted over a considerableperiod. Further, this inquiry was planned to facilitate the science teachers of Year 11students in a private religious secondary school, and then to explore issues of intent,use,and perceived significance of the use of Moodle, when taking teaching-learningoutside school. Data collecting tools in this research included a year of studentspostings on Wiki, interviews with the teachers and the head of the faculty andstudents evaluation report results. The results concluded that learning experiencesoutside the school with blended learning methods helped to provide context forlearning where students learned through social negotiations. Further, the resultsexpressed the development in students 'performance outcome in the achievement standard.

RoumianaPeytcheva-Forsyth (2018) Inhigher education in Bulgaria, distanceeducation is growing more and more popular, and students of all ages areincreasingly preferring it. Higher education institutions should be aware of theirstudents' requirements and expectations in order to find successful methods andsolutions for adopting distant education. This will help them give a high-qualityeducation to their students. "What are students' views about online learning andremote education?" has a huge impact on planning and executing successful onlineprograms. It might also help Sofia Institution (Bulgaria), which is a campusbaseduniversity in the process of transitioning its educational approach from faceto-face to online learning, accredit additional distance education programs. Thisstudy examines how 590 students at Sofia University feel about online learning andother forms of distant education. Finding out what influences students' opinions about online learning and remote education is a primary goal of the research.

Students' views and demographics, the experience of using technology in daily life,and the experience of utilize the technology in an educational environment are allexamined in this study. As a campus-based institution makes the switch to onlinelearning and remote education, the findings from this study will be valuable tofaculty and anyone else involved in the process of developing, planning, andimplementing these techniques.

Hussain, Tariq &Hashmi (2018) An educational method that encourages student participation, motivation, and efficiency in communication is known as e-learning,or electronic learning. E-learning is the capacity to distribute information throughvarious electronic mediums. Since the creation and implementation oftechnologically enhanced courses hinge on the awareness of pedagogical andtechnical aspects of e-learning, this is a critical step to be taken. The purpose of thisresearch was to find out how potential instructors feel about e-learning. This iscross-sectional survey-based quantitative exploratory research. A total of 360

futureteachers from the Institute of Education and Research were included in the study.Samples were drawn using a non-proportional stratified random sampling method. The reliability coefficient for a questionnaire with 30 items on a 5-point Likert-Type scale was = 0.78. Description and inferential statistical methods were used toexamine the data. E-learning views differed little between men and womenaccording to the findings of the research. Teachers' attitudes regarding e-learningshould be taken into account while building e-curriculum, according to educationalplanners.

Harsasi, Meirani&Sutawijaya, Adrian (2018) In today's educational system,online learning is more common, even in higher school. Even in Indonesia, anonline learning system is becoming an essential part of the educational process.Online tutorials, a kind of online learning technology used by UniversitasTerbukato assist with its distant education programme, have been established. Onefascinating question that needs to be examined is how students' pleasure in onlinelessons is affected by various aspects. The purpose of this study is to examine theelements that influence student happiness in online tutorials, and to decide whichof these aspects need to be addressed. Validity and reliability tests are conducted,and multiple linear regression is used to assess hypotheses. There are severalaspects that determine student happiness, and this article will look at how theseelements might be improved upon from the perspective of students.

Elian and Hamaidi (2018) explored the effect of using a flipped classroom

strategy on the academic achievement of fourth-grade students in Jordan. Particularly,it found out the impact of the traditional and flipped classroom strategies on theacademic achievement of students, and the study pointed out the impact of studentsgender on the academic achievement in a science subject. The study samples groupedinto two groups of which one group comprised of 22 students in the control group hadstudied in the ordinary conventional method and the other group comprised of 22students in the experimental group had studied in

the flipped classroom method. Inthis study, a pre and post-tests quasi-experimental design were used in theexperimentation stage. After the analysis, the results explained that experimentalgroup students got higher scores in the academic test than the control group students.Besides, there were no significant differences between male and female students inthe academic test. Based on the study findings, the study suggested supporting andmotivating the science teachers to instruct learners manipulating teaching-learningstrategies originated from the use of modern technologies like flipped learningstrategy.

Rahman (2017) performed a blended learning approach to teach fluid mechanicsin engineering. This research presented a case study on the teaching-learning processof fluid mechanics, University of Western Sydney, Australia, that applied a blendedlearning approach (BLA). In the BLA context, a variety of flexible teaching andlearning materials and strategies were used to the students, such as online-recordedtutorials, online recorded lectures, discussion boards, handwritten tutorial solutionsand online quizzes. In the Years 2011 and 2012, traditional teaching was followedthat means the subject consisted of fact-to-face, chalk and talk type lecturing. BLAwas adopted in the years 2013 and 2014. Based on the collected data over 734students in four-year duration, the result undoubtedly showed that BLA had enhancedthe learning experience of the students of fluid mechanicsatthe University of WesternSydney. The results also indicated that the overall percentage of studentssatisfactionin fluid mechanics subject enhanced by 18 percentages in the blended learningapproach case compared with the traditional classes.

Ceylan and Kesici (2017) investigated on effect of blended learning on academicachievement. In this study, the effects of blended learning on the middle schoolstudents'academic achievement level and product evaluation scores wereinvestigated. This study was carried out with a total of 53 students enrolled in theexperimental group and control group in the 6th-grade classrooms during the

2014-2015 school years in a middle school in the southwest part of Turkey. Theintervention lasted for 7 weeks. During the seven weeks, the unit of ―problem-solving,computer programming and development of Software product‖, covered inEducational technologies and Software course, was taught through a blended learningenvironment. The experimental group was taught using a blended learningenvironment, which supported with enriched web technologies such asvideoconference, Learning Management System, Discussion blogs, etc. The design ofthe study included a quantitative method. The researcher collected quantitative data such as academic achievement test and product evaluation scale. Academicachievement test and product evaluation scale were used as quantitative datacollection sources. Quantitative data was collected through the evaluation of students'projects that they developed during the process of the study and the academicachievement tests. During the data analysis phase, independent t-test, frequency andANOVA tests were used. Result of the study concluded that the experimental groupwho had studied in a blended learning environment was academically more successfulthan the control group who had studied in present teaching environments.

Seiichi et al. (2017) investigated the effects of flipped classroom methodologieson performance outcomes. This study was conducted on English oral communicationcourse for basic medical history taking skills in 1st-year students at Nihon Universityschoolof medicine, Japan. The first-year group of students (n = 135) registered in anEnglish course was instructed using a flipped approach. Another group of students (n= 128) was instructed using a more conventional communicative approach forcomparison. Finally, each learner's English skills were assessed individually using theevaluation formats such as Spoken English Proficiency (SEP), Communication andInterpersonal Skills (CIS), Integrated Clinical Encounter (ICE) and ComprehensionQuestions. The above said performance test scores were analyzed. The overall average examination score increased from 67.5% in 2014 to 77.5% in 2015, indicateda significant

improvement in students' performance. Research clearly pointed out thatstudents performed significantly better in using the flipped classroom method. Hence,it was worth considering this flipped learning methodology as a means to improveeducational effectiveness.

Kintu and Zhu (2016) investigated student characteristics and learning outcomesin a blended learning environment intervention in a Ugandan university. The studyaimed at examining the learner characteristics and backgrounds such as gender, age,self-regulation, attitudes, family and social support as well as the administration ofworkload in blended learning. Students from three schools and one directorate weretaken in a face-to-face environment in the first part of a seventeen-week semester andin an online environment in the second part. They finally had a face-to-faceenvironment at the end to review their work, after which they appeared for thesemester examinations. A questionnaire survey was engaged to 270 respondents inthis group to gather data. The examination results were used as a measure for theperformance variable. The descriptive statistics showed that the identified learnercharacteristics manifest strength for blended learning design and the learners'involvement with designed features was found to be high and satisfactory. Theregression analysis results showed that learner attitudes as predictors of learnersatisfaction and motivation while workload management was a significant predictorfor learner satisfaction and knowledge construction.

Las Johansen and Funcion (2017) investigated Blended Learning correlations onthe effectiveness of the different learning environment. The research used descriptivecorrelationto identify the effectiveness of the different learning situation through pretestand post-test, and then to verify the satisfaction rating of the respondents towardsthe different types of learning environments. A sum of 109 undergraduate first-yearstudents of BS Information Technology was treated as the sample of this study. Theresult of the study was that blended learning proves an effective tool to enhancestudent performance in programming. It is recommended

to use different learningmode of delivery to shows a significant increase and improvement in the academicperformance.

Abdullah (2016) attempted to improve listening comprehension for EFL preintermediatestudents through a blended learning strategy. This research objectivewas studying the effect of using a recommended blended learning strategy onenhancing English as Foreign Language (EFL) among the pre-intermediate students.The quasi-experimental design methodology was administered in this study. Thesamples of this study were twenty-six post-graduate students in TAFL Diploma atGraduate Studies in Education, Cairo University, Egypt. Measuring tools of this study incorporated a listening comprehension checklist and pre-post listening. comprehension test. Those tools were developed by the researcher. The statisticalmethods used in this research were t-test and Eta square. Based on the result of thisstudy, it is concluded that the recommended blended learning strategy had a largeeffect on enhancing the overall listening comprehension of the experimental groups.

UmitYapici (2016) conducted a study on the effectiveness of blended cooperativelearning environment in biology teaching, concerning classroom communitysense, academic achievement and satisfaction. The main objective of this study was toevaluate the effect of Blended Cooperative Learning Environment (BCLE) in biology teaching on learners'classroom community sense, their academic achievement and ontheir levels of satisfaction. The mixed-method design was employed in this study. Thestudy was carried out with thirty students in a 2012-2013 academic year and thirtyonestudents in the 2013-2014 academic year taking the course of ―seed plantssystematic‖ in the Department of Biology Education in a state University in Turkey.Three types of data collection tools were used in this study, such as ClassroomCommunity Index (CCI), the Achievement Test, and the scale of learners' views onBCLE. The results explored that the

students classroom community sense wasdeveloped and that had a high level of academic achievement and satisfaction throughBCLE.

Maza, Lozano, Alrrcon, Zuluaga, &Fodol (2016) performed Blended learningsupported by digital technology and competency-based medical education. Thisresearch described how using the blended learning format transformed the SocialMedicine course for second-year medical students at Universidad de Los Andes,Colombia. The main objective of this study was to explore the way the transformationof the Social Medicine course using the blended learning modality helped second-yearmedicine students acquire a series of target competencies. This research wasconducted during the first semester of 2015. A qualitative case study was carried outto explore the curriculum structure, training and skills, educational model andlearning environments used during the course. Findings showed that blended learningboth facilitated the transformation of the course design and promoted flexibility andautonomy in students learning process. The research identified that this modelpromoted learning for many students, whereas for others, it was still a difficult modelto understand and cope with. Some students felt more comfortable when they wereplaced in a passive role.

Selvi (2016) made an attempt on the efficacy of integrative strategy in blendedlearning based classroom setting. The present experimental study was undertakenwith two major objectives in view, (i) to apply an integrative strategy in teaching learningof mathematical computational skills for students with learning disability(LD) of higher secondary class in blended learning based classroom setting, and (ii) tomeasure the effectiveness of integrative strategy in blended learning based classroomsetting with special reference to students with learning disability of higher secondaryclass. The researcher adopted an experimental research method in this study. Themethodology of study adapted the appropriate steps such as the construction of tool,

identifying LD students, selection of the sample, applying the blended learningstrategy, data collection, scoring procedure and analysis of data applying suitablestatistical techniques. In applying the blended learning strategies stage, theexperimental group was taught through the integrative strategy in a flipped classroommodel approach.

Kacapor, Kemal &Kapo (2015) Attempts are being made by many industrialized countries to turn themselves into "learning societies" in response to globalization and rapid changes in economic, technological, and social conditions. In order toremain viable and competitive in the market, many traditional educationalinstitutions are finding it necessary to adopt new technologies as a result of the rapidexpansion of for-profit educational institutions, technological advancements, andthe desire for a more convenient means of communication and education. This pageprovides an in-depth examination of the underlying principles and vocabularyassociated with online education, among other things. Discover the factors thatinfluence students' impressions of an e-learning programme and the componentsthat contribute to this perspective. A total of 182 students from Sarajevo's Schoolof Economics and Business were polled as part of our research on student attitudestoward distance learning. The data analyzed a with the help of the statisticalsoftware packages SPSS version 20.0 and STATA version 12.0. The exploratoryfactor analysis method was used to refine the multi-item scale. The outcomes ofthis study's factor analysis are used to determine whether or not there is arelationship between students' attitudes about e-learning and their desire to engagein such programs, according to the researchers. According to the findings, thefollowing components had the greatest impact on students' opinions about elearningprograms: technology and support; technical competence; and teachers.Students' perceptions of e-learning programs seem to be favorably impacted byall three of these traits, according to the findings.

Cho, Young Hoan& Choi (2015) Students and instructors in online learningenvironments (OLEs) are being studied to better understand how they learn andteach in these contexts, and to develop OLEs that foster deep knowledge in highereducation settings. Despite the fact that there have only been a few studies on thistopic, more research is required to help educators better understand emerging trendsand problems in the use of OLEs in higher education, despite the fact that therehave only been a few studies on this subject. The purpose of this study is to providean overview of current literature published in peer-reviewed journals on practicaland theoretical themes relevant to OLEs, as well as to identify any gaps in theliterature. The aims of OLEs in higher education, as well as the research concernssurrounding them, were investigated qualitatively in this study. The OLE study wasdivided into three primary sections: participants, microenvironments, andMacroenvironments. Following the findings, a new theoretical framework for OLEresearch and practice is explored, which is based on ecological principles.

Badenhorst, Johan (2015) The current use of e-learning at South Africa'suniversities of technology (UoTs) is explored in terms of particular components ofteaching and learning at the universities of technology (UoTs). It is discovered inthis study that there is a six-dimensional approach to benchmarking e-learning,which includes the process categories, dimensions, and perspectives for thebenchmarking of Marshall's eMM, the Pick and Mix benchmarking of Bacsich,Ozkan, and Koseler's six-dimensional approach (HELAM), Sun, Tsai, Finger et al'ssix dimensions, and the ACODE benchmarking. These features were investigatedat UoTs via the use of a questionnaire. The six components of analysis are appliedto the data in order to analyze it. Following that, the implementation of e learningat South African universities is evaluated, and areas for further investigation arehighlighted.

El-Seoud, Samir &Taj-Eddin (2014) There are numerous educational issues andhurdles in Egypt that may be addressed with the use of technology. Many Egyptianinstitutions have adopted an open-source e-learning platform like Moodle. If you'reinterested in creating web-based modules that allow students to study at their ownpace, Moodle could be the tool for you. Using e-interactive learning's elementsenhances the desire of pupils to learn, according to a new study.

Al-Momani, Mohammad & Pilli (2014) Our lives have been impacted bytechnological improvements in several areas, including education and training. Asan unique learning tool, e-learning is quickly becoming popular at universities,where it is being used to help students achieve the objectives of student- centeredlearning. Many schools and universities throughout the world are implementing e -learningprograms, but many of these institutions are still struggling tocomprehend the process of obtaining students' acceptance of this new technology.The purpose of this study is to examine students' opinions about E-learning as wellas the effectiveness with which it is implemented. The TAM is being utilized as atheoretical framework for the investigation of e-learning uptake. For the purposesof this paper, we will investigate the factors that impact the attitudes of students atGirne American University (GAU) in North Cyprus about the use of the E-learningplatform and how they perceive it. Because of this, faculty members' awareness othe importance of incorporating E-learning into the educational process has beenraised as a result of the analysis of responses to an online questionnaire completedby 133 students representing more than 15 different departments as part of theircoursework.

Smidt, Esther & Bunk (2014) In recent years, there has been an unequivocal risein distant education. Given this, understanding the online course experience fromthe viewpoint of students is critical. Students at a Mid-Atlantic mid-sized publicinstitution were asked to participate in a qualitative survey to better understand theirviews on remote education in general. Afterwards, we provide

educators withpractical advice based on our results. Teaching English Language Learners, PreK-12, was taught by 36 teacher candidates who wrote journal entries as part of theircoursework. Students have strong views regarding the usage of the discussionforum, some of which are unfavorable. Findings are classified according to thecharacteristics of the course. Students' learning styles and practical considerationsinfluence the suitability of distant education, as do instructor characteristics such asthe necessity for interaction/synchronous communication and successfulevaluation.

Jordan, Of &Almarabeh, Tamara (2014) The importance of e-learning is recognize and valued by departments in universities and academic institutions.Departments devote significant resources to it. The expansion of informationtechnology and communications, as well as networks and multimedia, are drivingthe use of e-learning in education. The purpose of this study is to investigate howstudents at the University of Jordan view E-learning by using the TechnologyAcceptance Model to gauge their attitudes toward it. Students demonstrated a highdegree of skill in the E-learning system throughout the study and indicated a desireto use it in a more sophisticated fashion in their responses.

Arkorful, Valentina (2014) E-learning in higher education is the subject of thisresearch, which examines the benefits and drawbacks of adopting the technology. The use of current information and communication technology for teaching andlearning is critical in higher education institutions. E-learning in higher educationis the subject of this study, which evaluates the literature and provides a scholarlycontext for the study by examining the contributions made by different scholars and organization to the notion of e-learning. Surveys and other observations revealsome of the perspectives that individuals and institutions throughout the world haveexpressed on the use and integration of e-learning technology in education. Itexamines the many scholars' definitions of e-learning,

as well as the function itplays in academic institutions' teaching and learning processes and the benefits anddrawbacks of its acceptance and implementation.

Wong, L., & Fong, M (2014) Because of significant improvements in educationaltechnology, students and instructors now have a greater range of options in adynamic, competitive teaching and learning environment. It is vital to do researchon students' perceptions of conventional and online modes of delivery in order todetermine if the increasing use of technology in the curriculum has been beneficialto students' educational outcomes. There are two approaches to presenting anintroductory accounting course, and this study investigates the perceptions ofstudents about each approach. They were asked about the kind of education theygot as well as how they felt it influenced their exam results, and they provided arange of responses. The importance of social connections and the preferences foronline learning are also explored. This early survey of student perspectives willevaluate whether or whether there are statistically significant differences betweenface-to-face and online learning choices, as well as across gender groups. The papergoes on to investigate whether or whether the choice for face-to-face or onlinelearning alternatives, as well as the preference for online learning technology, isstatistically significant across gender groupings.

Subramani, P.C.Naga (2014) With this study, we hoped to learn more about theviews of high school teachers in the Madurai District of Tamil Nadu, India, towards e-learning. The Random Sampling Method was used to choose samples from a totalof 700 high school instructors. In order to analyse the data, the mean, standarddeviation, and t values were calculated. High school teachers' opinions about   e -learning were not significantly influenced by their gender or location, but they weresignificantly influenced by their teaching topic, teaching experience, and whetheror not they were Internet users.

Kar, Dhiman&Saha (2014) The future of higher education seems to be in elearning.According to the findings of this research, 308 University-level

studentsfrom four different universities in West Bengal were surveyed to determine theirattitudes toward eLearning. This study was undertaken to measure the attitudes ofuniversity students about eLearning in West Bengal. In order to conduct thisresearch, we employed a survey approach and a stratified random samplingmethodology. The Investigators collected primary data with the use of a wellthought-out questionnaire. According to the findings, students had a positiveattitude toward online learning, which was not substantially impacted by theirpersonal characteristics like gender, major, or place of residence.

Sabah, Nasser (2013) Thereare internal and extrinsic motivations that influencethe level of effort people put forth and the path they choose in life. When it comesto the quality of learning, motivation is a key causative component. Activities thatconcentrate on attitudes and needs, stimulation and impact, and competence andreinforcement should be used at various points in the learning process to encouragestudents to learn. Students at Alquds Open University were asked to participate inresearch to determine the effects of four different teaching methods: face-to-faceinstruction, blended learning, virtual classrooms, and video streaming. It is our goalto understand more about how students feel about e-learning and what they want togain from it. In addition, real-world consequences of incorporating an e-learningparadigm into the teaching and learning process were discussed. Study after study"The objectives of faculty "direction councils" and the accomplishments ofdepartmental initiatives are highly valued in strategic planning. Students' opinions,their positive or negative attitudes toward various courses of action, their concerns, suggestions, and needs, on the other hand, are often neglected. When importantchanges are being contemplated that will have a direct influence on this targetaudience, it is critical and crucial that students be engaged in the decision-makingprocesses of the institution in question. Students' input analyses were conducted inorder to narrow this knowledge gap, and the outcomes of the study reported in thisarticle will help to bridge that gap "The e-learning programme at the University ofLisbon is seen from a different viewpoint. In an empirical

research, qualitativeanalytical methodologies were utilized to examine the data. In 2010, semi -structuredinterviews with representatives from each faculty's student organization were performed. Twelve students have agreed to take part in the study asparticipants "Representatives from nine out of the eleven academic units at theUniversity of Lisbon were in attendance. In this study, we looked at four areas ofanalysis that helped us understand how students perceived the value and relevance of the e-learning program for their institution, as well as how it might be tailoredto meet the individual requirements of each faculty. "the implementation method,(iv) the benefits and drawbacks of the initiative for students, and (v) the outcomesof the project.

2.3 SUMMARY

Literature review shows what has been done in the research field and how the intended study relates to earlier research. Literature review consists of research findings as well as propositions and opinions of researchers in the field. Literature review delimits the study, relates the methods used by other researchers, recommendations of earlier works and provides the basis for the intended research task. All journals and research articles reviewed should be critically evaluated. Literature review can reveal methods of dealing with the research problem that may be similar to the difficulties of the researcher. Literature review will increase the confidence of the researcher and have an interest in this topic and have invested time, effort and resources studying it.

CHAPTER –III

METHOD OF

THE STUDY

CHAPTER III

METHOD OF THE STUDY

3.1 INTRODUCTION

Methodology has special place in research. It refers to the systematic methods used in particular field of study by researchers or the investigators to reach their desired goal. Methodology deals with the detailed description of the methods, sample and tools which are employed by the investigator in the research study. "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure".

According to Best (1986), "Research is considered as moral, formal, systematic method of analysis". Research is a careful search conquering to discovering new ideas by scientific study. It is an endless quest for knowledge or unending searching fortruth. The present study investigates the awareness on processes and phenomena among upper primary students in Cuddalore District. This chapter outlines the methodology of the study which includes the introduction, statement of the problem, objectives and hypotheses to be tested, the selection of the sample, data collection and the statistical techniques used in data analysis.

3.2 STATEMENT OF THEPROBLEM

Students Attitude towards Blended Learning strategy at Upper

Primary Level in CuddaloreDistrict.

3.3 DESIGN OF THE STUDY

The entire research design of the   present study is given in theTable3.1

Table3.1 Design of the study

Sl.No.	Type	Sources
1.	Nature of Research	Normative Survey Method
2.	ResearchVariables	Attitude on Blended Learning
3.	Tool Used	Attitude on blended learning strategy scale by IrfanFajrul
4.	Sampling Technique	Random Sampling
5.	Sample size	359 Upper Primary Students
6.	Sub groups	
	Gender	Boys and Girls
	Locality	Rural and Urban
	Management	Govt. and Aided
	Parent qualification	Illiterate, school, and college
	Parent Occupation	Daily wages, Salaried and Self employed
7.	Statistical Techniques	Descriptive Analysis Differential Analysis

3.4 OBJECTIVES OF THE STUDY

1. To study the level of attitude of students towards blended learning strategy at upper primary in Cuddalore District

2. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to gender

3. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect tolocality

4. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to type of management

5. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parents educational qualification

6. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parents income

3.5 HYPOTHESES OF STUDY

1. The level of attitude of students towards blended learning strategy at upper primary in Cuddalore District is moderate

2. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to gender

3. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect tolocality

4. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to type of management

5. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parent educational qualification

6. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parent income

3.6 METHOD OF INVESTIGATION

The present study is normative survey in nature. The descriptive research method has been the most popular and most widely used method in education. It helps to explain educational phenomena in terms of condition as relationship that exist. "Survey studies are conducted to collect detailed descriptions of existing phenomena with the intent of employing data to justify current conditions and practices or to make more intelligent plans for improving them."

3.7 POPULATIONOF THE STUDY

The schools situated in urban and rural areas in Cuddalore District are taken for the study. The students studying eighth standard in middle schools, schools (Govt. and Aided) in Cuddalore District was the study population. In the selection of respondents care was taken to study all the categories of the students of different schools. Random sampling technique was used in the selection of the schools. Upper Primary Students in terms of Gender, locality, type of management, parent qualification and parent income were considered in the study.

3.8 SAMPLE OF THE STUDY

Government and Aided schools in Cuddalore district were collected and samples schools were selected by random sampling technique. Care was taken to study all the categories of the students of different schools. Among the collected sample, 359samples were considered for the study. The students doing VIII standard during the year 2023-2024 were selected as subjects randomly from various schools of Government and Aided Two type of schools based on the level were selected from each block of the above two categories. Totally 359 VIII standard students from the selected schools participated in this survey.

Table3.2Block-wisedistributionofthesample

SL.NO.	BLOCK	TOTAL
1	ANNAGRAMAM	46
2	BHUVANAGIRI	20
3	CUDDALORE	63
4	KAMMAPURAM	13
5	KATTUMANNARKOIL	22
6	KEERAPALAYAM	35
7	KUMARATCHI	49
8	KURINJIPADI	19
9	PANRUTI	21
10	SRIMUSHNAM	19
11	VIRUTHACHALAM	52
	TOTAL	359

Table3.3:Variable wise Distribution of the Sample

Sl.No.	Variables	Category	N	Total
1	Gender	Boys	184	359
		Girls	175	
2	Locality	Rural	198	359
		Urban	161	
3	Type of school	Govt.	221	359
		Aided	138	
4	Parent qualification	Illiterate	39	359
		School level	128	
		College	39	
5	Parent income	Daily wage	164	359
		Salaried	137	
		Self employed	58	

Figure3.1:Variablewisedistributionof theSample
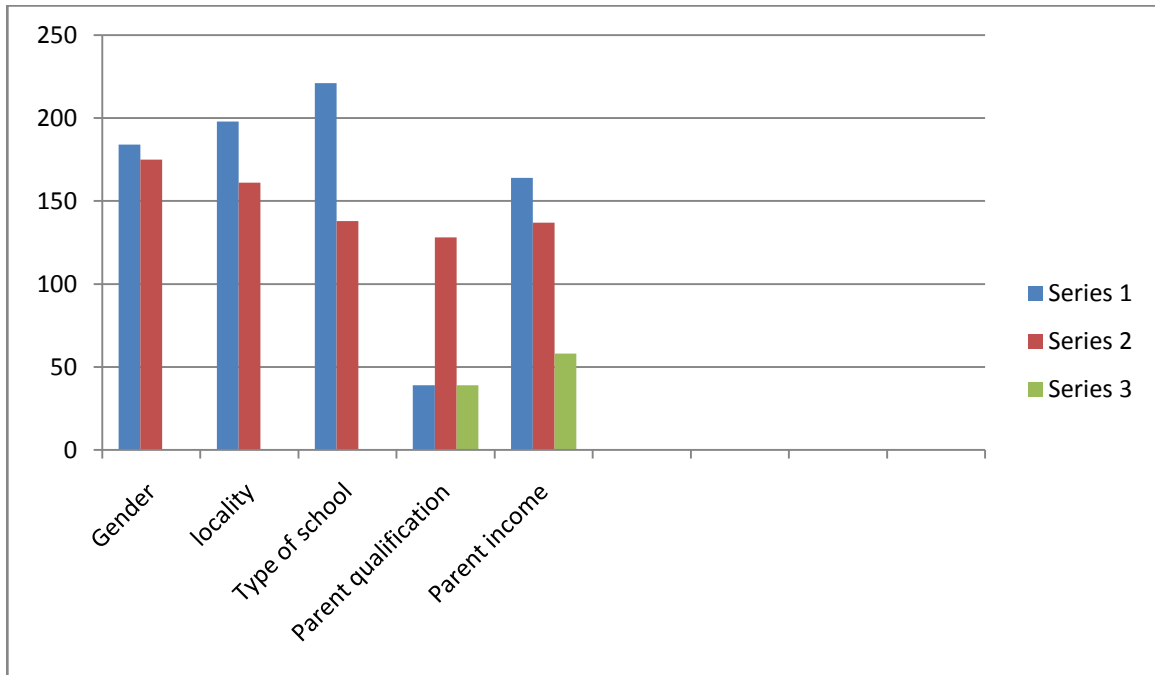
3.9 DESCRIPTION OF THE TOOLS

A questionnaire developed by IrfanFajrul consists of 34 items is considered as tool forassessing the attitude of students towards blended learning among upper primary level.The Questionnaire consisted of 34questions,it is a closed end questionnaire.

RELIABILITY

The reliability of the test instrument was determined by using the test- retest method of determining the internal consistency of the testwhere each of the sampled students had two sets of scores. The scores obtained by each subject on the items were compared and correlated with their scores using the Pearson

Product–Moment Coefficient. The obtained value was 0.767. It was concluded that the value was reliable for the sample.

VALIDITY

The content validity of the instrument was obtained by determining the extent to which the raters agreed with the test developer on the assignment of the test items to the respective objectives. The raters were also asked to provide answers to the test items so as to verify the accuracy and objectivity of the scoring key. Validity of the questionnaire was 0.875

3.10 MODE OFADMINISTRATION

The researcher sought permission from the respective Head Masters of the schools that were selected for the study. Research assistants were hired to assist in the administration of the test to students. The researcher and the assistants administered the developed test instrument to students. Prior to each administration of the test, the purpose of the study and the role of the students were thoroughly explained to the randomly selected subjects. They were also informed of their right to decline from participating in the study if they so wished.

After the administration of the test in the schools selected for the study, the scripts were scored by allocating a single mark for a correct response and no mark for a wrong. The total correct score was determined and the percentage of the score out of the total number of possible scores (the total number of items) was calculated. Both the raw scores and the percentages for each subject were entered into a computerforanalysis.

3.11 SCORING ANDTABULATION

For every right answer, one mark was given. The scores obtained were kept as raw score. The scores were used for finding the level of attitude towards blended learning of VIII standard students. There are three levels high, moderate and low.

For testing the difference between the means and difference among the means raw scores were used.

3.12 STATISTICAL TECHNIQUESUSED

In the present study the following statistical techniques were used for analyzing the data.

Descriptive Analysis (Percentage)

Differential Analysis(t-test) and F test

3.13 CONCLUSION

In this chapter the research design and the sampling technique were given in detail. The procedure for the construction and the finalization of the tool was also described. It was also mentioned how the collected Questionnaire was scored and suitable statistical analysis was carried out. The details of analysis and discussion are given in the next chapter.

CHAPTER-IV

ANALYSIS AND

INTERPRETATION

CHAPTER-IV

DATAANALYSISANDINTERPRETATION

4.1 INTRODUCTION

This chapter deals with the modern operation of critical analysis ofcollecteddatathroughappropriatestatisticaltechniques.Thedata,after collection was processed and analyzed in accordance with the outline laid down in the research plan. The term analysis refers to the compilation of certain measures along with searching for pattern of relationships that exist among data groups. For the present study, the investigator collected the data ofthe awareness on science processes and phenomena ofthe selected sample.

According to John W. Best (1977), "Statistical data describes group behaviour or group characteristics abstracted from a number of individual observations which are combined to make generalization possible .Analysis of data in a general way involves a number of closely related operations, which are performed with the purpose of summarizing the collected data, organizing them in such a manner that they answer the research questions

In order to apply proper statistical techniques, statistical experts were consulted for analyzing the data. Having ensured that all the safeguards, attempts were made to classify and analyze the data. For descriptive part of analysis,

mean and standard deviation values were computed. For finding out the significance of difference between the two groups ,t-test was computed. For finding the relationship the product moment correlation co-efficient (r) value was computed. To find the association between the groups Chi-square analysis was done.

4.2 DESCRIPTIVEANALYSIS

This section deals with the descriptive analysis of data. The scores of 359 students spread over different sub-groups were put to computation and basic statistical values like mean, standard deviation were calculated.

Table 4.1

Mean and Standard Deviation with respect to whole sample and subgroup

Group	Sub -group	Number	Mean	SD
Gender	Boys	184	25.97	13.77
	Girls	175	25.74	14.03
Locality	Rural	198	26.48	9.66
	Urban	161	25.09	18.09
Type of management	Govt.	221	24.55	13.67
	Aided.	138	20.40	16.76
Parent Qualification	Illiterate	39	25.97	11.60
	School level	281	25.85	13.30
	College level	39	25.82	21.09
Parent income	Daily wages	164	25.84	14.07
	Salaried	137	26.36	11.61
	Self employed	58	24.74	17.31

Figure 4.1

Mean score of attitude of students towards blended learning strategy at upper primary with respect to the sub variables

Figure 4.2.

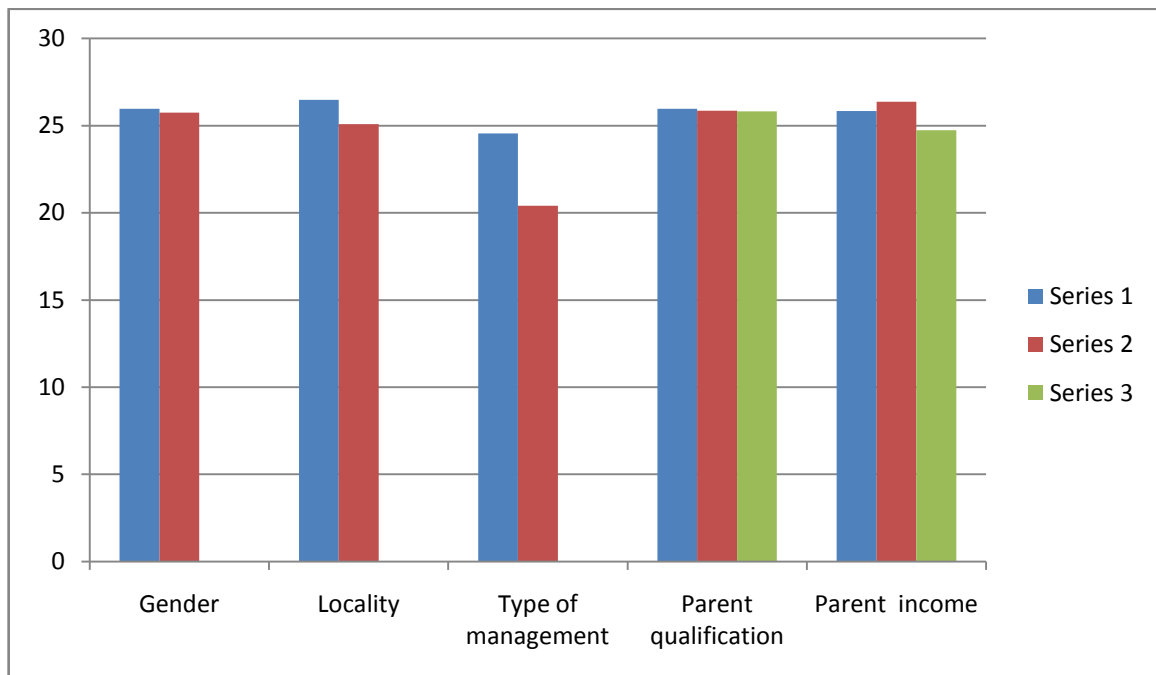**Percentage of students at upper primary with respect to the gender**

GENDER

■ BOYS ■ GIRLS ■   ■

0%

49%

51%
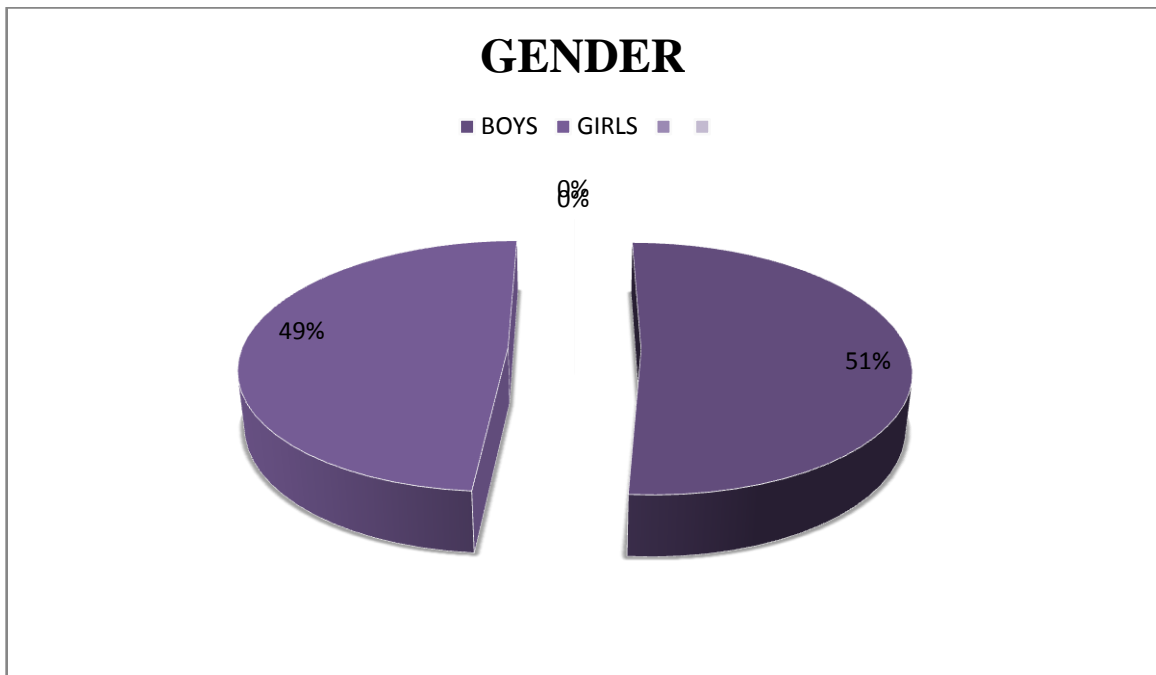
Gender:

Mean scores of attitude of students towards blended learning strategy of boys (25.97) is greater than girls(25.74)

Figure 4.3

Percentage of students at upper primary with respect to locality

LOCALITY

0%   0%
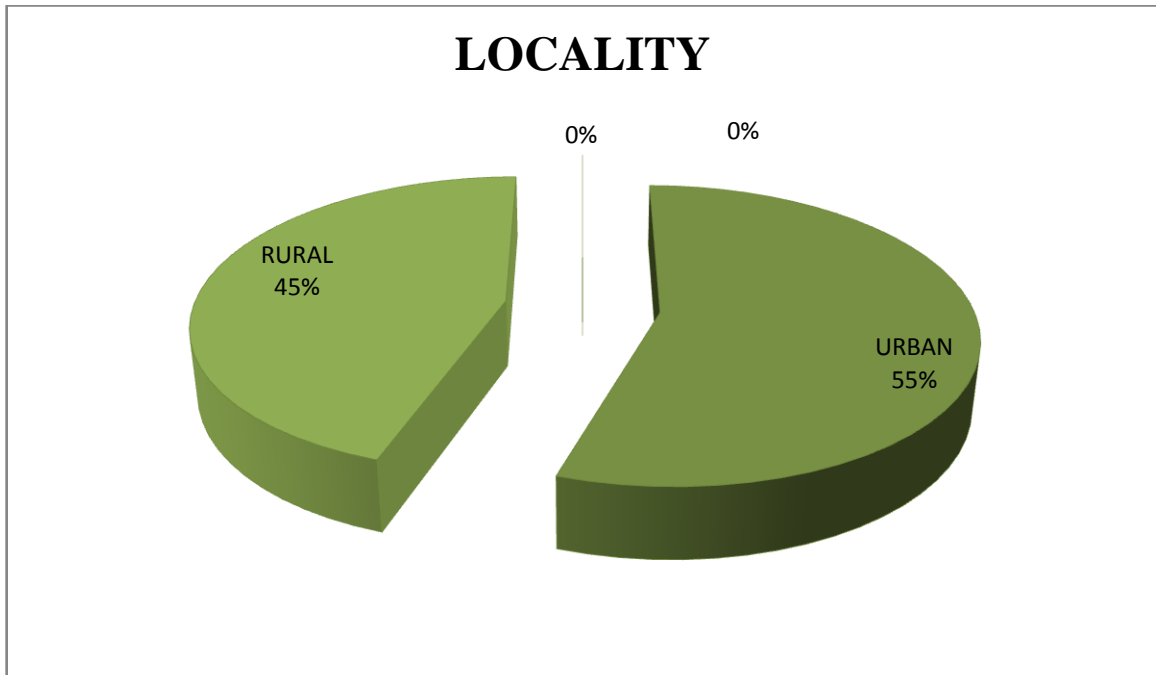
RURAL
45%

URBAN
55%

Locality:

Mean scores of attitude of students towards blended learning strategy of rural students(26.48) is greater than urban students (25.09)

Figure 4.4

Percentage of students at upper primary with respect to type of school

Type of Management

■ GOVT.　　■ AIDED

0%

38%

62%
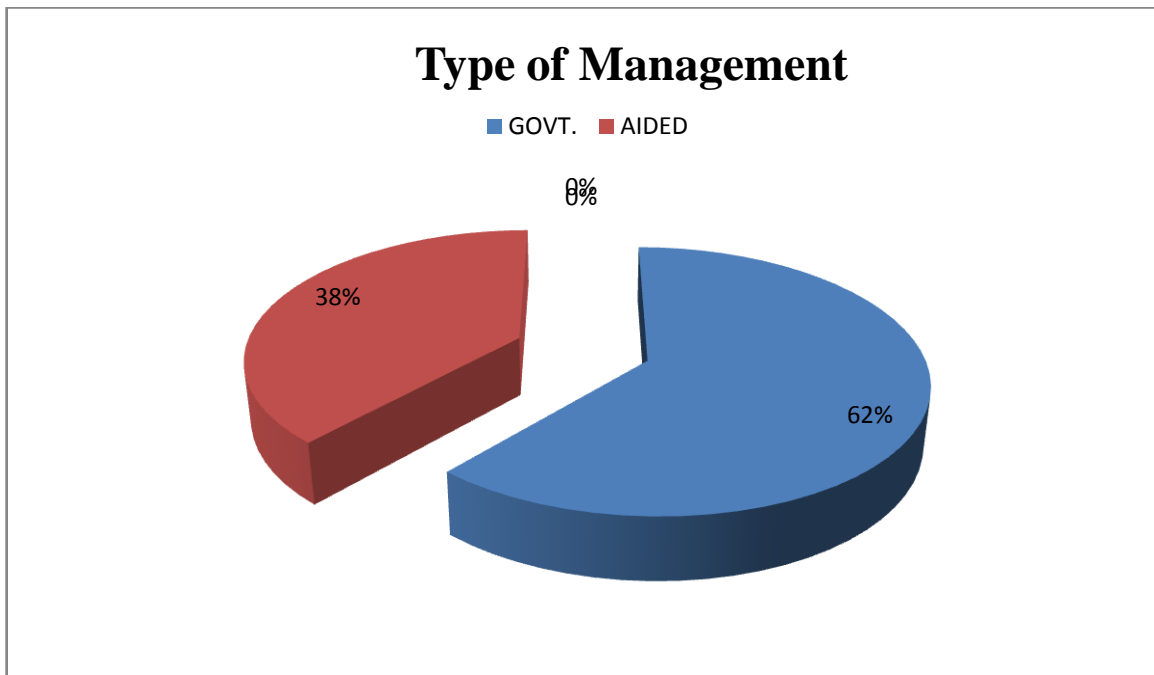
Type of Management:

Mean scores of attitude of students towards blended learning strategy of govt. students(24.55) is greater than aided students(20.40)

Figure 4.5

Percentage of students at upper primary with respect to parent qualification
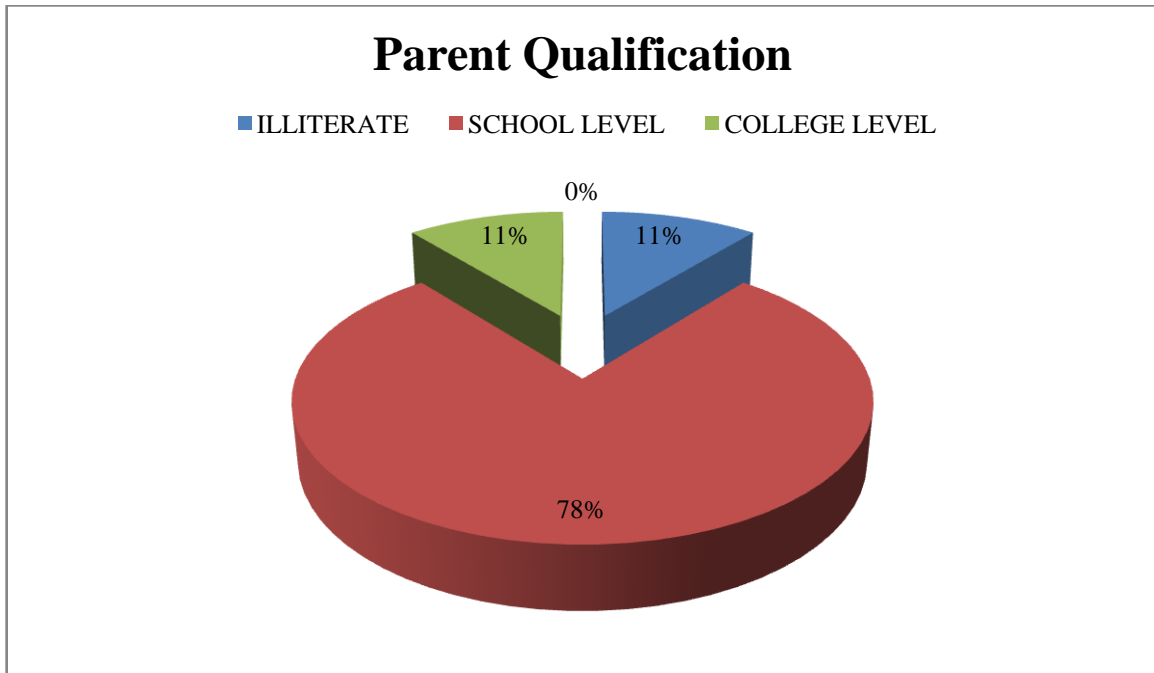
Parent qualification:

Mean scores of attitude of students towards blended learning strategy of illiterate parents (25.97) is greater than school level(25.85) and college level (20.40)

Figure 4.6

Percentage of students at upper primary with respect to parent income
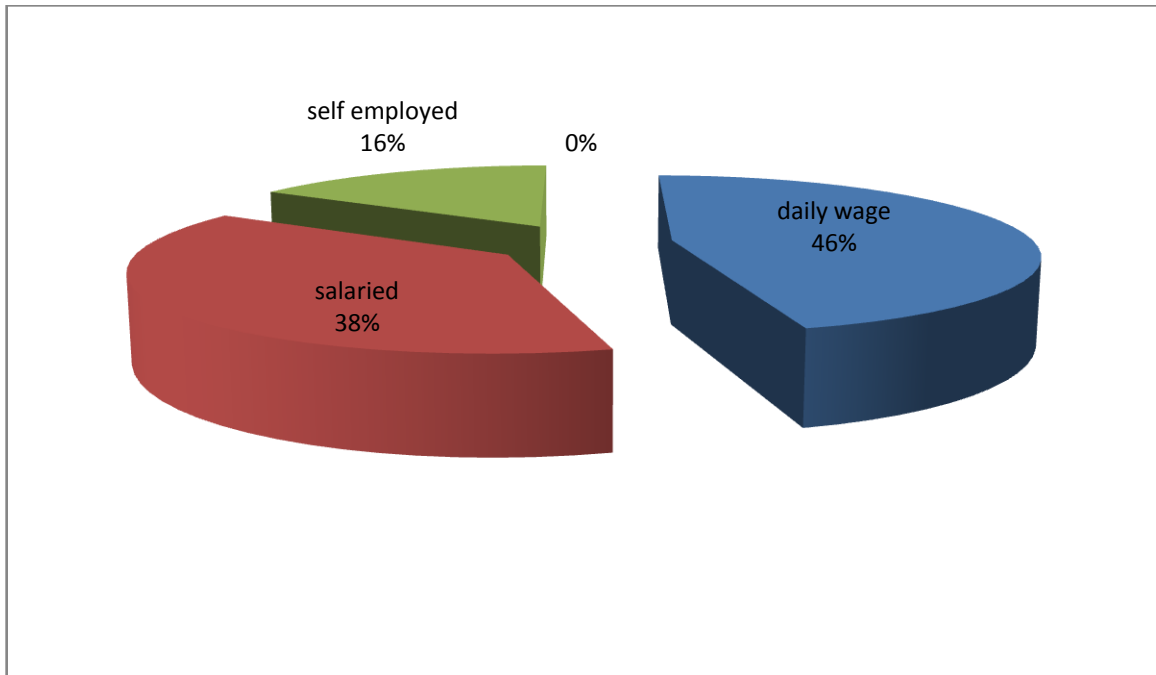
Parent income:

Students of salaried parent (26.36) has a greater mean score than daily wage (25.84) and self employed (24.74) Average mean value of the whole sample is 25.86. Hence the level of   attitude towards blended learning strategy of upper primary level is high

Table 4.2

Level of   attitude towards blended learning strategy of upper primary level

Sl.No.	No. of students	SCORE	LEVEL
1	50	1-13	LOW
2	95	13-22	MODERATE
3	214	23-34	HIGH

Figure 4 .7

Level of   attitude towards blended learning strategy of upper primary level

4.3 DIFFERENTIALANALYSIS

This section highlights the differential studies identifying the difference between any two sub groups of the sample by applying 't'-test

4.3.1 Hypotheses testing :

Hypothesis(H1):
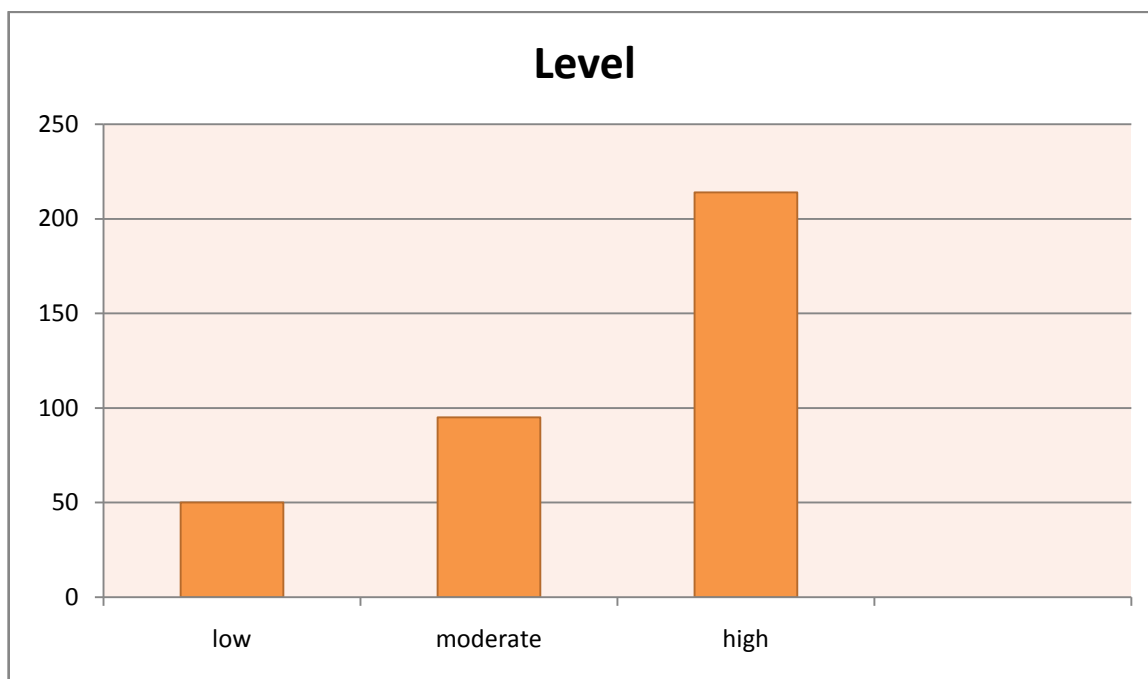
There is no significant difference between Boys and Girls attitude towards blended learning strategy at upper primary level

Table4.3

Comparison between Boys and Girls

Variable	Group	N	Mean	SD	t-value	Level of Significance
Attitude towards blended learning strategy	Boys	198	26.48	9.66	0.56	0.05
	Girls	161	25.09	18.09		

The result presented in the table4.3 shows the mean scoresand standard deviation of boys and girls Attitude towards blended learning strategy.The 't'value 0.56 is lesser than the table value 1.96 at 0.05 level of significance. Hence the null hypothesis is accepted and it revealsthat there is no significant difference between the boys and girls in their attitude towards blended learning strategy at upper primary level.

Figure4.8

Comparison between Boys and Girls

mean scores

(Bar chart comparing mean scores: boys ≈ 25.97, girls ≈ 25.74. Y-axis ranges from 25.6 to 26.)
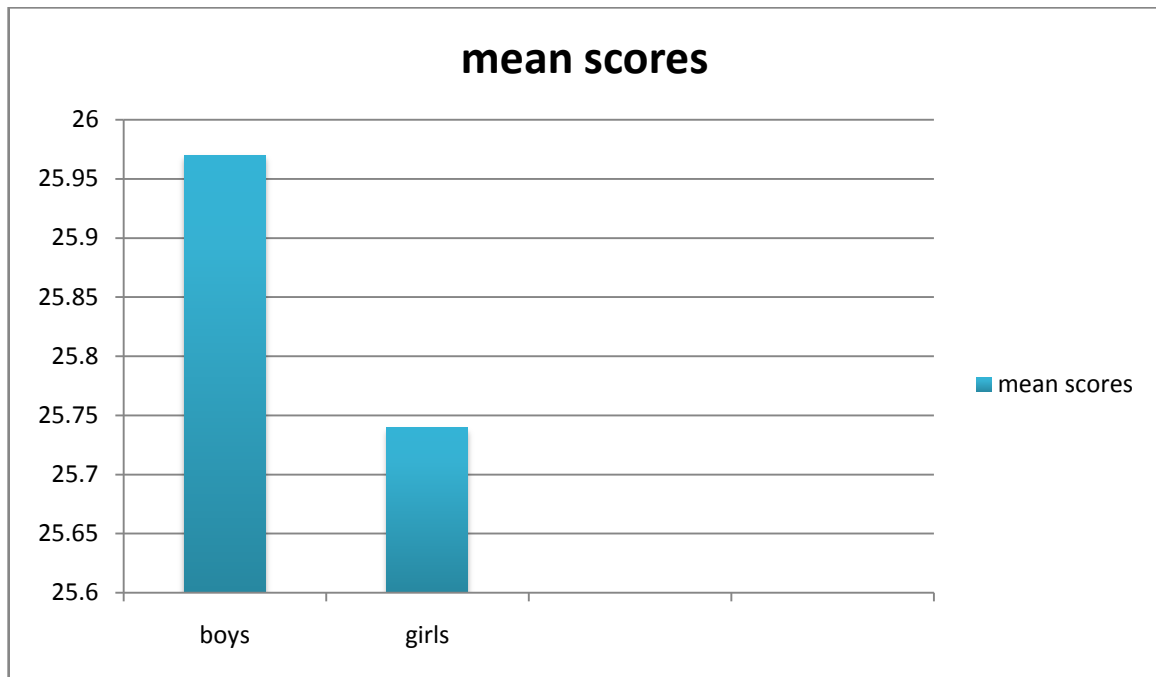
Hypothesis(H2):

There is no significant difference between the mean scores of rural and urban school studentsattitude towards blended learning strategy at upper primary level .

Table 4.4

Comparison between Rural and Urban students

Variable	Group	N	Mean	SD	t-value	Level of Significance
Attitude towards blended learning strategy	Rural	184	25.97	13.77	3.45	0.05
	Urban	175	25.74	14.03		

The result presented in the table 4.4 shows the meanscores and standard deviation of rural and urban school students attitude towards blended learning strategy at upper primary level .The 't' value 3.45 isgreater than the table value 1.96 at 0.05 level of significance. Hence the null hypothesis is rejected and it revealsthat there is significant difference between the rural and urban school students in their attitude towards blended learning strategy at upper primary level

Figure4.9

Comparison between Rural and Urban School Students

Hypothesis(H4):There is no significant difference between the mean scores of government and aided school students attitude towards blended learning strategy at upper primary level .

Table 4.5

ComparisonbetweenGovt.andAidedschoolstudents

Variable	Group	N	Mean	SD	t-value	Level of Significance
Attitude towards blended learning strategy	Govt.	221	24.55	13.67	2.40	0.05
	Aided.	138	20.40	16.76		

The result presented in the table 4.5 shows that mean scores and standard deviation of Govt. and aided school students their attitude towards blended learning strategy at upper primary level .The't' value 2.40 is greater than the table value 1.96 at 0.05 level of significance. Hence the null hypothesis is rejected and it reveals that there is significant difference between the Govt. and aided school students their attitude towards blended learning strategy at upper primary level .

Figure 4.10

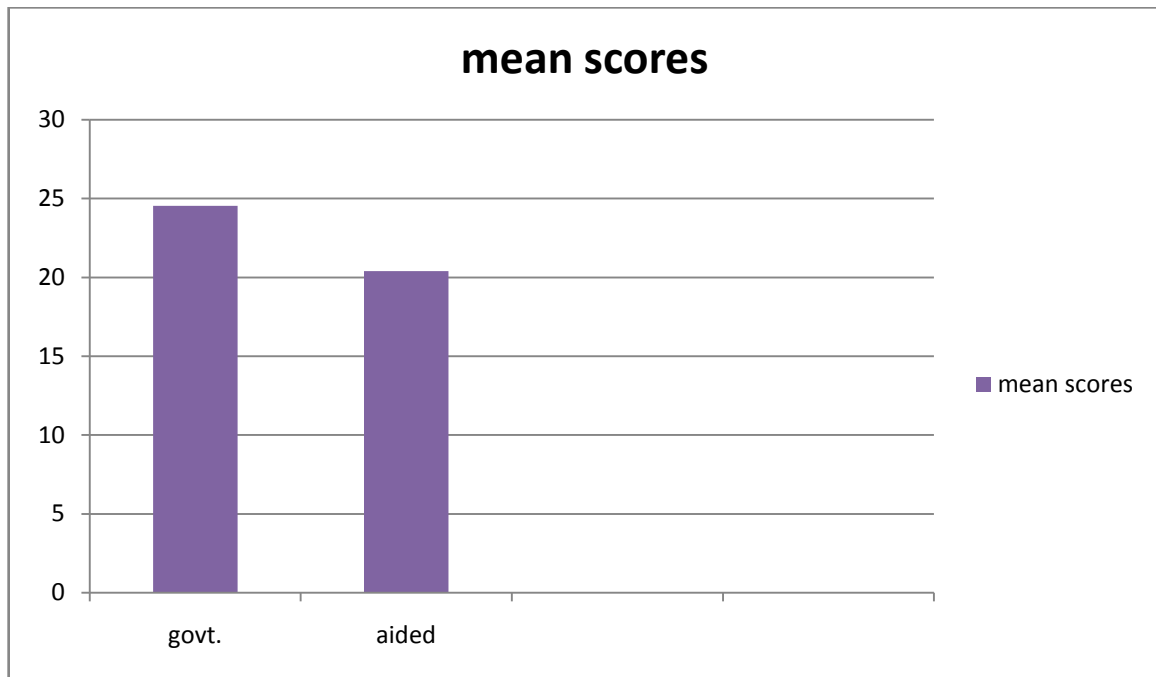## Comparison between Govt. and Aided school schoolstudents

mean scores

A bar chart titled "mean scores" with the y-axis ranging from 0 to 30 in increments of 5. The "govt." bar reaches approximately 24.5 and the "aided" bar reaches approximately 20.4. Legend indicates purple bars represent "mean scores".

Hypothesis(H6):There is no significant difference between the mean scores of students attitude towards blended learning strategy at upper primary level with respect to their parent qualification

Table4.7

Comparison between the mean scores with respect to Parent Qualification

Source of variance	SS	df	MS	F-value	p-value	Level of Significance
Between group	0.57623	2	0.288111			
Within group	4967.36	356	13.95	0.0206	0.976	0.05
Total	4968.312	358				

The result presented in the table4.7 shows the meanscores and standard deviation of studentsattitude towards blended learning strategy at upper primary level with respect to their parent qualification. The 'F' valueis lesser than the table value 3.02 at 0.05level of significance. Hence the null hypothesis is accepted and it revealsthat there is no significant difference between the students attitude towards blended learning strategy at upper primary level with respect to their parent qualification.

Figure 4.11

Comparison between the mean scores with respect to parent qualification

Hypo the sis (H6): There is no significant difference between the mean scores of students students attitude towards blended learning strategy at upper primary level with respect to their parent qualification.
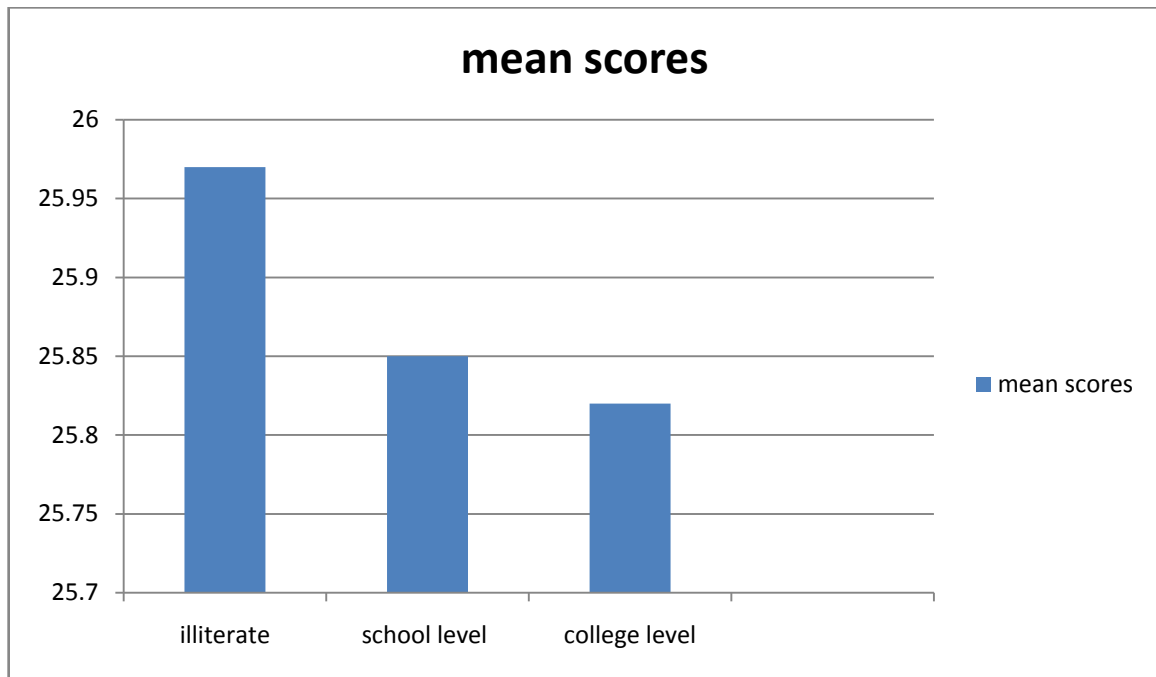
Table4.8

Comparison between the mean scores with respect to parent income.

Source of variance	SS	df	MS	F-value	p-value	Level of Significance
Between group	107.56	2	53.780			
Within group	4860.75	356	13.653	3.938	0.0203	0.05
Total	4968.312	358				

The result presented in the table4.8 shows the mean scores and standard deviation of students attitude towards blended learning strategy at upper primary level with respect to their parent qualification. The 'F' values are greater than the table value 3.02 at 0.05 level of significance. Hence the null hypothesis is rejected and it reveals that there is no significant difference between the students students attitude towards blended learning strategy at upper primary level with respect to their parent qualification.

Figure 4.12
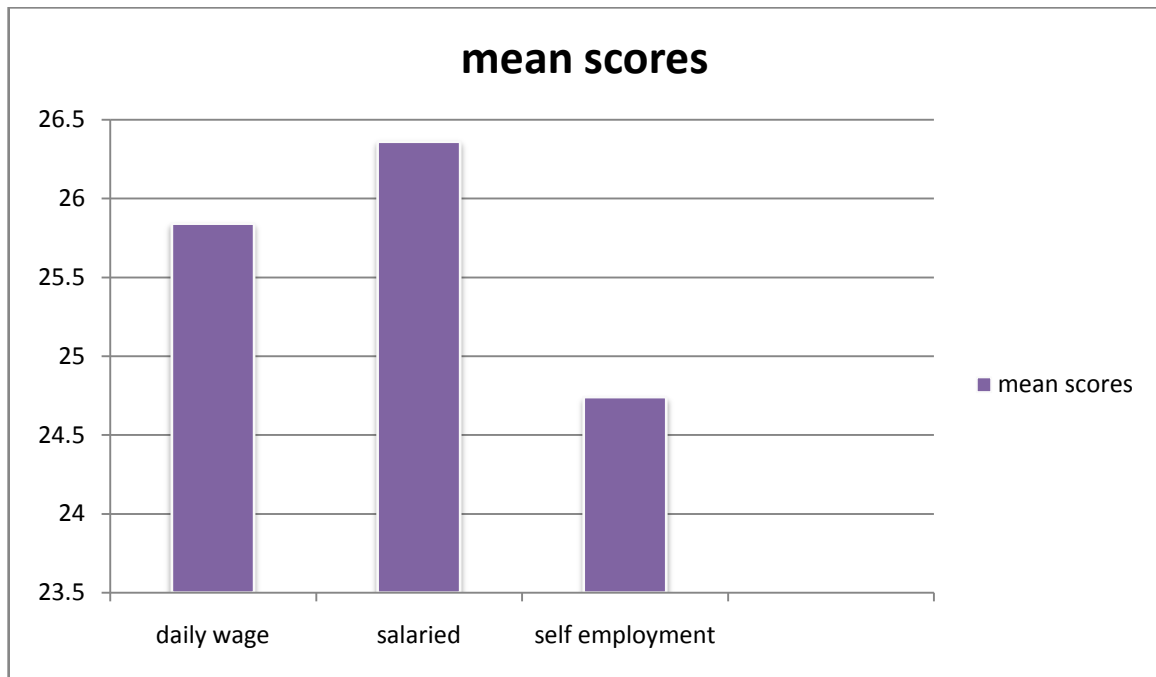
Comparison between the mean scores with respect to parent income

4.4 CONCLUSION

The data collected using the scales were subjected to the percentage, arithmetic mean, t-test and Anova and the findings were interpretedto determine and the attitude towards blended learning strategy at upper primary level of the selected sample. The findings of the analysis and other aspects related to the study are summed up in the succeeding chapter.

CHAPTER-V

SUMMARY

CHAPTER V

SUMMARY AND CONCLUSIONS

5.1 INTRODUCTION

This chapter presents a summary of the study, objectives of the study, hypotheses, findings and conclusions. This chapter further highlights the recommendations based on the findings and suggestions for the further research .the main aim of this study was to investigate the "Students Attitude towards Blended Learning strategy at Upper Primary Level in CuddaloreDistrict".for this study 359 students were selected as sample in the year 2023-2024.the subjects were selected randomly various schools of from government and aided schools .Normative survey method is adopted for the study.

5.2NEED AND SIGNIFICANCE OF THE STUDY

The pandemic situation that has been faced by the whole world for more than two years is an unforgettable moment to all the individuals. The education system had a major effect due to this serious cause. Most of the educational institution both government and the private sector switched over to the alternate teaching strategy of teaching. Then in turn blended learning created a platform for a better learning. Teachers use this technology to transfer their knowledge and experience in order to achieve the learning outcomes. The attitude of the teachers also adapted to the new methodology. It is a combination of varioustechnologies such as online teaching, webinars, e -learning, e-source materials that motivatedboth teachers and students in the teaching learning process. Blended teaching and learningstrategy initiated

the interest of the students, raised their speed of learning and made them more flexible to all range of the students.

Blended learning combines online and offline learning (Purnawarman, Susilawati, &Sundayana 2016). Blended Learning, as defined by Graham (2004), is a method of learning that combines the advantages of traditional classroom instruction with those of more modern online instruction. In the context of this investigation, the term "blended learning" refers to the process of incorporating a variety of activities and technology designed for a particular class of students. To phrase it another way, it entails enhancing conventional teaching methods using digitally-based resources, such as videos and documents (Kaur, 2010). Blended learning is seen as a technique for developing acceptable educational environments for students, allowing them to easily attain their goals and boost their learning through appropriate technology. As a consequence of this, blended learning is regarded as a strategy. Blended Learning in an EFL setting is a pedagogical strategy that accommodates students' effectiveness and opportunities for enhancing technology in the learning process (Dziuban, Hartman, &Moskal 2004). Through videos, blogs, chat rooms, and discussion forums, e-learning can provide access to target language culture (Duff & Uchida, 1997). These tools provide EFL learners with more access to the language of native speakers. According to Graham (2006), online environments help pupils feel at ease. Online exposure can facilitate the employment of strategies in training all language skills. Online activities also assist self-directed learning concerning course material (Barenfanger, 2005). The changing of learning environment has also lead the changing of learning paradigm. In this term, the student-centered approach is more suitable for enhancing technology into a learning activity. For example, a study by Eydelman (2012) shows us how blended learning can change a teacher-centered platform that is

usually used by Russian during their classes where the position of teacher is more dominant than the student was started to be left. This is one of the reasons blended learning is applicable in every subject, especially in teaching English where the students' opportunity is broader due to the language used.

Globally, information technology has resulted in enormous political, social, economic, and educational transformations. Through computers and the Internet, ICT facilitated access to information in many fields (Kaur, 2013). As a result, online teaching-learning settings and competition with face-to-face environments grew swiftly and expanded widely. Osguthorpe and Graham (2003), on the other hand, claim that Blended learning is more efficient than traditional methods because it makes it simpler and more convenient to access learning and teaching environments. Blended learning is gaining popularity because many educators believe it "combines the best of both worlds" by giving students the opportunity to learn in both online and traditional classroom settings

5.3 STATEMENT OF THE STUDY

Students Attitude towards Blended Learning strategy at Upper

Primary Level in Cuddalore District.

5.4 OBJECTIVES OF THESTUDY

The objectives of the study are:

1. To study the level of attitude of students towards blended learning strategy at upper primary in Cuddalore District

2. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to gender

3. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect tolocality

4. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to type of management

5. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parents educational qualification

6. To find out the significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parents income

5.5 HYPOTHESES OF STUDY

1. The level of attitude of students towards blended learning strategy at upper primary in Cuddalore District is moderate

2. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to gender

3. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect tolocality

4. There is no significant difference between the mean scores of attitude of students upper primary towards blended learning strategy at upper primary with respect to type of management

5. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parent educational qualification

6. There is no significant difference between the mean scores of attitude of students towards blended learning strategy at upper primary with respect to parent income.

5.6 DESIGN OF THE STUDY

The present study is normative survey innature. The schools situated in urban and rural areas in Cuddalore District are taken for the study. The students studying eighth standard in middle schools, high schools and higher secondary schools (Govt. and Aided) in Cuddalore district was the study population. Random sampling technique was used in the selection ofthe schools. The students doing VIII standard during the year 2022-2023 were selected as subjects. Three type of schools based on the level were selected from seven blocks. Totally 334 VIII standard students from the selected 21 schools participated in this survey. Awareness on Science Processes and Phenomena Questionnaire(ASPPQ) prepared by the researcher used for assessing the awareness on natural and physical processes and phenomena of students.

5.7 MAJOR FINDINGS OF THE STUDY

It is found that the average mean value of the whole sample is 25.86. Hence the level of attitude towards blended learning strategy of upper primary level is high

It revealsthat there is no significant difference between the boys and girls in their attitude towards blended learning strategy at upper primary level .

The attitude of students towards blended learning strategy of rural students is greater than urban students

The attitude of students towards blended learning strategy of govt. students is greater than aided students

The mean scores of attitude of students towards blended learning strategy of illiterate parentsisgreater than school level and college level.It is examinedStudents of salaried parent has a greater mean score than dailywage and self employed

5.8 RECOMMENDATIONS OF THE STUDY

Teachers should be more creative since most students are new to use the technology and the last but not least, teachers should find a better formula to create a good proportion between online and offline learning.The integration of anonline learning environment and a classroom environment islikely to combine ideally the advantageous aspects of both types of instruction.

Online or web-based learning environment provides the flexibility and the efficiencywhich cannot be assured in a classroom environment whereas a face-to-faceeducation class ensures the social interaction in which the students will needguidance for learning.

The students were introduced to the technical features of the web environment useby instructors who also helped them whenever technical problems occurredStudents shared the experiences, questions andopinions with each other and with the instructors.

The participation of students tothe forum environment was monitored by the instructors on a weekly basis, and theinstructors gave them regular feedback. When the importance of interaction-communication is taken into consideration ineffective learning, it can be concluded that synchronous

communicationenvironments should coexist with asynchronous ones. Hence, students will beexposed to more productive learning experiences. Face-to-face and onlineenvironments can be reorganized by examining the learning styles of students inblended learning environments.

5.9 EDUCATIONAL IMPLICATIONS OF THE STUDY

Based on the findings, implication of blended learning through course was run well. It can be seen from the perspective that shown by the students was positve where maximum of them were satisfied on blended learning implementation. It was also believed that by using blended learning, students were permited to repeat lessons without judgment or pressure. However, regarding the study's findings, several considerations are recommended. First, a stable blended learning with good facilities such as internet connection is needed. Second, teachers should be more creative since most students are new to use the technology and the last but not least, teachers should find a better formula to create a good proportion between online and offline learning.When compared to the traditional instruction method, the blended learning model contributes more to critical thinking dispositions and levels of students.. The available literature suggests that blended learning requires students to have control on their own learning processes, and in turn improves their critical thinking and cooperative learning skills .with regard to online courses allowing students additional time for reflective thinking and processing information, state those students can process information better in online learning environments where they would be forced to analyze themselves what they learn, instead of decisions and interpretations of others. The additional time created for processing information also contributes to critical thinking skills of students and helps them develop further insight into their responses

5.10 SUGGESTIONS FOR THE FURTHER RESEARCH

This study highlighted that face-to-face teaching and the use of the forum in this method contributed to students' learning. The fact that students, whose achievement level is low, stated that they were not accustomed to using online environment underlines the importance of making students familiar with these environments through blended learning method before adopting a method which is completely based on online learning and that of supporting online courses with face-to-face interaction. When the importance of interaction-communication is taken into consideration in effective learning, it can be concluded that synchronous communication environments should coexist with asynchronous ones. Hence, students will be exposed to more productive learning experiences. Face-to-face and online environments can be reorganized by examining the learning styles of students in blended learning environments. . Consequently, it could be suggested that blended learning model helps students improve their ability to control their own learning processes, and thus, add to their critical thinking dispositions

Replication of the study may be conducted on College Students.A similar study may be undertaken by taking women XII standard students assubjects.A similar study may be undertaken to study the aptitude, attitude of blended learning for higher secondary teachers towards.

5.11 CONCLUSIONS

This study showed that student have positive attitude towered blended learning. it also indicate that blended learning which combine online class learning and traditional in- class learning is more effective than using traditional learning process. It also show that with blended learning the information is obtained by more than one way. Students believed that blended learning assignments give

them opportunity to learn more. Furthermore, the results of the study indicated that blended learning is useful to students, and that most students fully understand the goals of e-learning through blended learning. In general the students have shown positive attitude towered blended learning. However, they have shown adequate information about the field of blended learning and to decide when and how to use the resources provided to them through blended learning. Therefore, the study recommends further research to explore the differences between different teaching approaches that use information technology including e-learning, distant learning and blended learning; additional areas of researchshould be considered is to understand how attitudes toward blended learning related to some variables like age, gender, disabilities if the learner have such as blindness and hearing disabilities.

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APPENDICES

மாணவர்சுயவிவரம்

மாணவர்பெயர் :

பள்ளிமுகவரி :

பாலினம். : ஆண் /பெண்

பள்ளிஅமைவிடம். : கிராமம் /நகரம்

பள்ளிமேலாண்மை : அரசுபள்ளி /அரசுஉதவிபெறும்பள்ளி

பெற்றோர்கல்வித்தகுதி : எழுத்தறிவின்மை/பள்ளிப்படிப்பு /பிறபடிப்பு

பெற்றோர்வருமானம் : தினக்கூலி /மாதவருமானம்/சுய வருமானம்

வ.எண்	வினாக்கள்	ஆம்	இல்லை
1.	இணையவழிமற்றும்மரபுவழிகற்றல்வகுப்பறையில்தகவல்பரிமாற்றத்திற்குமிகவும்பயனுள்ளதாகஅமைகிறது.		
2.	BL தகவல்களைபல வழிகளில்இருந்துபெறப்படுகிறது.		
3	BL வாசித்தல்மற்றும்கற்றல்திறனைமேம்படுத்துகிறது.		
4	கற்கும்திறனைவலுப்படுத்தஉதவுகிறது.		
5	கற்றல்கற்பித்தலில்மாணவன்தன்னைமுழுமையாகஈடுபடுத்தமுடியும்.		
6	மனப்பான்மையைமேம்படுத்துகின்றது.		
7	பாடப்பொருளைஇணையவழிகற்றலுடன்வடிவமைக்கப்படுவதுமாணவர்களுக்குஆர்வத்தைதூண்டக்கூடியஒன்று.		

8	ஆசிரியர் மாணவர்களிடையே கலந்துரையாடலை மேம்படுத்துதல்.		
9	இம்முறையில்எல்லாசெயல்பாடுகளும்புரியும்வண்ணம்இருக்கும்.		
10	BL மூலம்எல்லாசெயல்பாடுகளுக்கும்போதுமானநேரம்கிடைக்கும்.		
11	இணையவழிகற்றல்அறிவாற்றலைவளர்கிறது.		
12	இணையவழிமற்றும்கலந்துகற்றல்அர்த்தமுடையதாகவும்கலந்துரையாடல் செய்யும்சூழ்நிலையைஉருவாக்குகிறது.		
13	மின்னாற்றல் ,வலைத்தளம்செயல்படாதபோதுசற்றுசிக்கலும்சிரமங்களைசந்திக்கவேண்டி யசூழ்நிலைஆகிறது.		
14	கற்றல்முறைமாணவருடையவேகத்திற்குஏற்பஅமைக்கப்படுகிறது.		
15	துணைக்கருவிகள்மற்றும்பிறமூலங்கள்கலந்துகற்றலுக்குஏற்றவையாகஇல் லை.		
16	ஆசிரியர்களுக்குதகுந்தபின்னோட்டம்இல்லைகாரணம்நேரமின்மை.		
17	இந்தஇணையவழிமுறையானதுபுரிந்துகொள்ளமுடியாதது.		
18	இம்முறைமூலம்கொடுக்கப்பட்டஒப்படைப்புகலந்துரையாடல்கடினமாகஉள் ளது.		
19	இந்தஅணுகுமுறைஒருசவால்நிறைந்தஅணுகுமுறையாகும்.		
20	சமூகத்தில்இருந்துஎன்னைதனிமைப்படுத்துகின்றது.		
21	இம்முறையில்ஆசிரியரிடம்கலந்துரையாடஅதிகநேரம்தேவைப்படுகிறது.		
22	வழக்கமானவகுப்பறைநிகழ்வோடுஒப்பிடும்போதுமிக்குறைந்தஅளவேநாம் கற்றுக்கொள்கிறோம்.		
23	தகவல்கள்பதிவுசெய்வதுமிகவும்ஈடுபாட்டுடன்செயல்படதூண்டப்படுகிறது.		
24	பாடங்களின்ஆழமானகருத்துக்களைவிளக்கபயன்படுகிறது.		
25	என்னுடையஅலைபேசிஎன்கற்றலுக்குஉறுதுணையாய்இருக்கிறது.		
26	சமூகவலைத்தளங்கள்கற்றலுக்குஉதவுகிறது		
27	கற்றலில்அடைவுநிலைஅடையஉந்துதலாகஇருக்கிறது.		

28	இணையவழிமூலம்கற்றல்கற்பித்தலுக்குதகுந்தபயிற்சிதேவைப்படுகிறது.		
29	பாடம்சார்ந்தபலதகவல்களைசெய்திகளைஅறியமுறைபெரிதும்உதவுகின்றன.		
30	இம்முறையானதுகணினிபயன்படுத்திபலபாடங்கள்கற்கபுரிந்துகொள்ளஏதுவாய்இருக்கிறது.		
31	வகுப்பறையில்பாடம்சார்ந்தகருத்துக்கள்புரிந்துகொள்ளபெரிதும்உதவுகின்றன.		
32	கற்றல்கற்பித்தல்முறையைஎளிமையாக்குகின்றது.		
33	வலைத்தளம்முகநூல்போன்றவைகற்றலுக்குஉறுதுணையாஇருக்கிறது.		
34	ஆசிரியர்மாணவர்களுடையதகவல்பரிமாற்றம்விரிவுரைக்குமுறைவரவேற்கப்படுகிறது.		