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An Analysis Comparing Traditional Classroom Instruction With Online Learning Using Traditional Textbooks In Middle Schools

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ABSTRACT
A typical classroom setting is ideal for children who like history. Conventional classrooms in higher education are well-known and popular. The standard teaching style encourages student initiative and attention. Teaching techniques and tools differ in the typical classroom. Education consists of lectures and other forms of focused instruction. In addition to reading, young people may learn a lot by listening to and watching videos. Traditional education focuses on texts, lectures, and student tasks. Not even social considerations are considered. To succeed, online students must acclimatise to their new learning environment. Given the abundance of information accessible to pupils, the capacity to critically analyse it and reach acceptable judgements about its accuracy is becoming more vital. Students are also more confident and self-sufficient, especially in fully computerised courses. This requires a strong inner motivation and commitment to study, as well as fewer peer interaction. Online students perform similarly to traditional classroom pupils, but disengagement is more detrimental. Teachers and students may utilise e-Learning, or computer-assisted learning, to manage their education. The early forms of "e-learning" employed computers to teach mathematics. Most teachers have strong e-learning pedagogical abilities, as shown in recent years. The use of electronic techniques for learning and teaching is known as "e-learning." Both conventional and online education are critical to a nation's development because they empower its population. The typical Chinese will be 29 at the end of the decade. Higher education—including management, medical, and engineering—is critical to a country's economic growth and output because it instills in students vital ideas and competencies. Because to this "demographic dividend," China will account for one-fourth of the world's working population by 2040.

Keywords: *Online learning, Traditional textbook, Traditional classroom, Traditional learning.*

1. INTRODUCTION

Since philosophy covers metaphysics, epistemology, and axiology, it offers a helpful prism through which to view education—especially in the context of colleges. Higher IQ is connected with paying great attention in a discussion. Whether your classroom is brick and mortar or online, listening is always a crucial component of the learning process. Apart from the moral considerations, the debate should include the following areas: the source, categorization, and quality of the information; the actual goal of the learning process; and the values under active influence. The constantly growing need for technical literacy directly results in the fast spread of online learning possibilities all around. For students enrolled at institutions of higher education (IPT) to keep on their studies, computers and the internet are indispensable instruments. Every element has advantages and disadvantages all by itself. One should consider any negative aspects in addition to the possible advantages.

Despite its limitations, online learning is better as it provides the highest possible chances of greater credentials, more professions, and beneficial change. Online learning gives students the freedom to pick their own study place and timetable. One disadvantage of online learning is the less possibility for direct communication between teachers and students. Some students would rather study in a conventional classroom, lab, or conference room environment with their teacher and other students because of the general value placed on interaction. This predisposition may be explained by the overall worth of interaction. Although both approaches have advantages and disadvantages, ultimately a student's degree of preparedness and the attitude they choose will determine their learning capacity (Grissett, 2019).

Public schools' racial and economic segregation reflects the same economic and residential segregation that exists in communities at large. This is so because the main residence of a family usually plays a major part in deciding which schools a kid will attend. Higher median dwelling expenditures and higher rates of house ownership usually translate into school systems depending on local tax bases to have better financial stability. This is so because more people live in their own houses here. This is a result of more people owning their own homes in certain areas (Somers, 2019).

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2. BACKGROUND OF THE STUDY

The discussions regarding the most effective form of instruction commence in kitchens and living rooms prior to their arrival at the offices of legislators responsible for the development of educational programmes. It is unsurprising that educational processes must adapt in conjunction with technology. Using this data, the study will provide a summary of the most frequently mentioned learning approaches. These methodologies are typically classified into two categories based on the manner of their documentation (Colvard, 2018). This includes both traditional classroom instruction and online learning. This research endeavours to offer a comprehensive analysis and examination of two distinct learning styles, each with its own set of substyles, in response to the increasing demand for effective learning strategies in our country and around the world. For traditional classroom instruction to be successful, it is essential that teachers and students collaborate. Conversely, online education eliminates the necessity for students and instructors to be physically present simultaneously. The term "e-learning" refers to an instructional approach that utilises the internet to enable pupils to study at their own tempo and in their individual environments. The objective of this investigation is to evaluate the advantages and disadvantages of the two educational methodologies. Teachers at middle-class and mixed-income schools tended to advocate for more advanced coursework as the standard, whereas those at working-class schools tended to lower expectations, resulting in lower-level coursework becoming the norm. Additionally, the opportunities that students were able to access in their later years of education were significantly restricted by the early academic "choices" and stream allocations (Cooney, 2017).

The already apparent disparities in the cognitive abilities and skills of children that are contingent upon the circumstances of their families will continue to widen as the school year progresses. The diverse range of life and educational experiences that students bring to the classroom may result in a variation in their individual educational requirements. This situation is of paramount significance within the educational system of Germany, given the significant increase in the racial and ethnic diversity of the student body in recent years (KMK, 2016). The increasing number of pupils whose families have been compelled to evacuate their residences as a result of the ongoing conflict is a significant factor contributing to this increase. Due to the proliferation of student-centered pedagogical techniques and diversity-friendly education discourse, educators are now under more pressure than ever to comprehend and address the requirements of their students, who hail from a variety of backgrounds and have distinct family structures. It is possible to contend that the primary objective of education is to motivate and facilitate students' pursuit of comprehensive knowledge. Schools are now tasked with increasing the percentage of students who achieve their objectives, rather than concentrating on closing the achievement disparity between students from varying socioeconomic backgrounds (Alrashidi, 2016).

3. THE PURPOSE OF THE RESEARCH

This research aims to evaluate in middle school education—more especially, the use of traditional textbooks against digital resources—the efficacy of conventional classroom teaching against online learning approaches. Using a mixed-methods approach, the study seeks to gather qualitative insights on student involvement and learning experiences as well as quantitative data on student performance. The project will examine, statistically, test results, assignment completion rates, and general academic performance of students engaged in conventional and online learning contexts. Surveys and interviews will be used qualitatively to compile instructor and student opinions on the learning process including the supposed efficacy of tools, degrees of involvement, and difficulties encountered in every format. This thorough study will provide insightful analysis of how various teaching strategies and resources affect middle school learning results. The results seek to enlighten legislators and teachers on the merits and shortcomings of every method, thereby directing choices on curriculum development and teaching tactics. Understanding these dynamics helps the research to improve student learning experiences in an environment of more digital learning by means of bettering educational strategies.

4. LITERATURE REVIEW

Technology is important to many people today, including students, because it helps them do their daily tasks. Every part of life has been changed by the fast growth of technology, including education, which is the process of teaching and being taught. More and more schools are realising that adding technology to the classroom may make teaching and learning better for the students.

After this point has been made, it's clear that the learning process needs to be explained. What people do to gain new information, change their behaviour habits, or get better at something is called the learning process. People learn in many different ways, such as by watching others, listening to explanations, and doing things on their own. Because of this, there are many different ways to describe or order the process of learning.

These aren't the only ways people learn. After talking about the first method, which is called Traditional Learning, the study will look into and compare the second method, which is called E-Learning. There is a big gap between these two ways of teaching when it comes to which is better or more effective. Different experts have different opinions about whether learning should happen in a regular classroom or online. Below, we'll talk about each of the above learning methods in more detail and then compare and contrast the two different ways of teaching (Clinton, 2018).

• Classroom Learning

Without being in a classroom, there is no way to make the human connections that happen there. When you think about the learning process, you can see it as a way to send and receive knowledge. In a normal classroom, the teacher is the sender and the student is the listener. As was already said, it is very important for both the teacher and the students to be in the same place at the same time. One problem with learning in a school is that there is only one teacher, who might not be able to give each student the care they need. This is a bad thing about learning in a school (Somers, 2018).

• E- Learning

China has to consider the integration of ICTs into its educational institutions. Student achievement and retention may be enhanced by the use of innovative e-learning technologies, as stated in "E-Learning: Putting a World-Class Education at the Fingertips of All Children" (National Educational Technology Plan 2000) (US DoE, 2000). Technology such as online classrooms, e-libraries, multimedia, learning websites, and computer networks is altering the traditional classroom setting (Research Institute of Shanghai Academy of Intellectual Development, 2001). The implementation of ICTs in education has opened up numerous new avenues for teaching and learning. Mixed learning, virtual and open education, video education, and networked learning are a few examples. According to Hayes (2018), the terms "e-learning" and "ICT in Education" have identical meanings in China.

5. RESEARCH QUESTION

a) What are the benefits of online learning?
b) What is the importance of traditional books?

6. RESEARCH METHODOLOGY

The study's quantitative research was carried out by means of interviews and surveys. What follows is a description of the interview and survey procedures. The steps that will be taken to gather data, analyses it, and draw conclusions from it must be laid out in a research design. Using a mixed-methods approach based on quantitative and qualitative data collected in a quasi-experimental environment, this research used an exploratory case study technique. In research projects, experimental designs are used to investigate a process and determine its effect on a dependent variable.

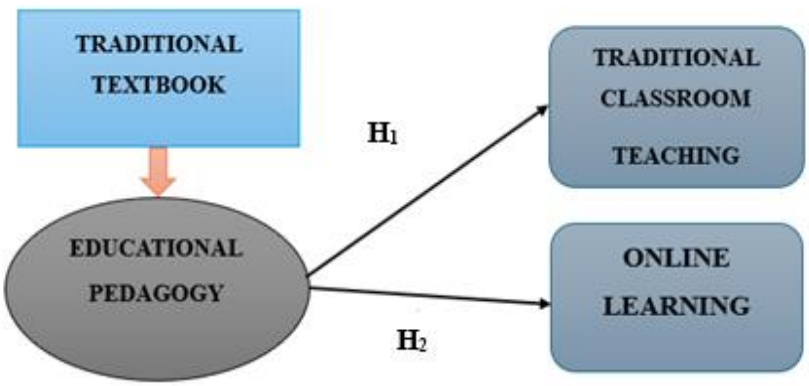
Sampling: A thorough cross-sectional study was conducted by the researchers. Because it was a cross-sectional study, all that was needed was a single, inexpensive moment in time to gather data. A quantitative technique was used by the researcher due to the restricted resources and short timeframe. After using Rao-soft software to estimate a sample size of 1,177, we sent out 1,375 questionnaires, received 1,280 back, and then removed 80 due to incomplete surveys. A total of 1200 questionnaires were used for the research, with 576 men and 624 females participating. The survey was administered to all participants using a random selection method. The research used a convenient sampling approach. In this research, a sample size of 1200 is considered, which is equivalent to about responses.

Data and Measurement: Questionnaire surveys (either one-to-correspondence or Google Form) were used to gather primary data for the study. There were two sections to the survey: demographics and online/offline channels. Secondary data was gathered from a variety of sources, with an emphasis on online databases.

Statistical Software: MS-Excel and SPSS 25 were used for Statistical analysis.

Statistical tools: Descriptive analysis and ANOVA were applied to understand the basics nature of the data, validation of the data was conducted through pilot study.

6.1 Conceptual Framework



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7. RESULTS

- **Dependent Variable**

- **Traditional Classroom Teaching**

Traditional classroom teaching involves a teacher presenting the material to pupils. This approach involves face-to-face training using textbooks, chalkboards, and whiteboards. Using traditional classroom methods: Instructor-led: In this paradigm, the lecturer leads the class through activities and courses. Learning is planned and done in an organised atmosphere. Students communicate in class discussions, Q&A sessions, and collaborative projects. Teachers employ textbooks, handouts, visual aids, and demonstrations to improve learning. Evaluation: Written and spoken quizzes, exams, and assignments are online and offline evaluation methods. The classroom has always been central to education, but technology and other educational methods have become increasingly prevalent. Today, many people, including students, rely on technology for daily tasks. Education, which is the process of teaching and being taught, has been affected by technology's fast progress like every other area of human existence. Many schools have realised that using technology in the classroom may improve student learning. After making this argument, describing the learning process is necessary. The "learning process." involves obtaining new information, changing behaviour, or increasing abilities. People learn by seeing, listening, and experimenting, hence there are various methods to define or structure learning. Only certain ways people learn. E-Learning will be examined and compared after Traditional Learning. There is a huge gap in effectiveness between these two teaching styles. Some researchers prefer conventional classrooms, while others prefer online learning. This article will compare and contrast the two learning approaches and provide an outline of each (Hardin, 2018).

- **Online learning**

Online learning, sometimes known as e-learning, involves students and instructors using the internet to access course materials and communicate. This strategy lets diverse learners' study at their own pace, from anywhere, and at their own time. Course management systems, video lectures, online discussion forums, and other digital tools for distance learning are typical of online education. Distance education essentials include Instructional films, readings, quizzes, and assignments are available on websites, LMSs, and specialised educational platforms. Digital technologies like chat, email, video conferencing, and message boards let students and instructors collaborate. Accessibility: Students with different schedules and learning styles may complete assignments and study course information at their convenience. Today's classrooms use digital quizzes, exams, and projects for quick grading and teacher feedback. Multimedia, databases, and digital libraries provide students with more information than textbooks. Flexibility: Online learning systems may alter speed and content to each student's needs and performance using adaptive learning technology. Online learning has skyrocketed in popularity due to its scalability and accessibility, providing students new opportunities and schools as a method to reach more people. Online learning requires a robust technology base, thoughtful course design, and instructor and student interaction (Clinton, 2018).

- **Independent Variable**

- **Traditional Textbooks**

Traditional textbooks are organised formally and methodically. Schools, colleges, and universities use these works to complement curricula. Features of classical textbooks include: Print Format: These books include text, illustrations, and charts for understanding. Textbooks are organised into chapters, sections, and subsections for full covering. Textbooks prepared by industry experts are trusted sources of information. Educational Elements: Summary, exercises, quizzes, and glossaries are frequent learning aids. Updated versions feature fresh content and advances in the field. Even if digital resources and e-learning platforms are growing, textbooks remain essential to formal education due to their organised presentation and classroom convenience. As more digital tools and online resources are employed in the classroom, their purpose is evolving.

- **Factor**

- **Educational Pedagogy**

Educational pedagogy covers theory, practice, and techniques for teaching and learning. It contains instructor methods for teaching. Pedagogy covers teaching content and method, including instructional strategies, curriculum creation, assessment tools, and classroom administration. Important educational technique includes: Pedagogy is the science and art of selecting and executing a variety of teaching methods to meet students' various and complicated needs. This might involve lectures, group projects, flipped classrooms, or project-based learning. Educational programmes and courses are influenced by pedagogy. To ensure student comprehension, teachers sequence themes, resources, and assessments. Good pedagogy develops assessment tools that monitor progress and give constructive feedback to assist students reach their learning objectives. This includes formative (conversations, quizzes) and summative (exams, projects) assessments. Pedagogy entails making the classroom a suitable learning environment. This includes classroom order, effective instructor-student interactions, and student participation. Flexibility, Customisation: Effective teaching recognises that students have diverse backgrounds and needs. Teachers employ strategies to adapt classes and materials for students with different backgrounds, interests, and abilities. Reflective practice—reevaluating and reflecting on one's teaching

methods—is emphasised in pedagogical approaches. Teachers assess their teaching effectiveness based on student feedback and lesson outcomes. Educational pedagogy evolves with new research and technology. It emphasises evidence-based techniques and educator professional development to maximise student learning (Grissett, 2019).

On the basis of the above discussion, the researcher formulated the following hypothesis, which will analyse the relationship between educational pedagogy relation with Traditional classroom teaching.

$H0_1$: There is no significant relationship between Educational pedagogy relation with Traditional classroom teaching.

H_1: There is a significant relationship between Educational pedagogy relation with Traditional classroom teaching.

As per the hypothesis formulation $H0_1$ is null hypothesis and H_1 is the alternative hypothesis.

Table 1: ANOVA Sum

ANOVA					
Sum					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	39936.307	452	3993.631	2487.855	.000
Within Groups	145.083	747	1.630		
Total	40081.390	1199			

In this study, the result is significant. The value of F is 2487.855, which reaches significance with a *p*-value of .000 (which is less than the .05 alpha level). This means the ***"H_1: There is a significant relationship between Educational pedagogy relation with Traditional classroom teaching."*** is accepted and the null hypothesis is rejected.

On the basis of the above discussion, the researcher formulated the following hypothesis, which will analyse the relationship between Educational pedagogy relation with Online learning.

H_{02}: There is no significant relationship between Educational pedagogy relation with Online learning.

H_2: There is a significant relationship between Educational pedagogy relation with Online learning.

As per the hypothesis formulation H_{02} is null hypothesis and H_2 is the alternative hypothesis.

Table 2: ANOVA Sum

ANOVA					
Sum					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	39936.307	447	3993.631	2489.855	.000
Within Groups	145.083	752	1.630		
Total	40081.390	1199			

In this study, the result is significant. The value of F is 2489.735, which reaches significance with a *p*-value of .000 (which is less than the .05 alpha level). This means the ***"H_2: There is a significant relationship between Educational pedagogy relation with Online learning."*** is accepted and the null hypothesis is rejected.

8. DISCUSSION

All research participants, regardless of gender, preferred combining classroom and online learning. According to the statistics, many students wanted to take more than online courses. The alternative education course required weekly teacher meetings for individual study and internet learning. Students had to do homework outside of class, but they had some discretion in how long they spent on them as long as they turned them in before their next appointment. Students in online education must complete daily activities. Students require self-motivation to accomplish online assignments outside of class. Despite having greater freedom in how and when they performed course work, many online students chose the alternate school due to its schedule flexibility. Students routinely complained about missing online class sessions. The learner needs Internet and a computer, tablet, or smartphone to complete the online course. Many students complained

that the course was uninteresting or difficult since the videos constantly broke. Some alternative schools' in-person courses are easier than their online ones. Students may have had false expectations about the time and effort needed to finish their online courses because they thought they would be easier than classroom courses. Students attending online programmes must have self-discipline to arrange their time well. Although the participants' GPAs did not show a significant interaction between instructional modality and gender, male and female students performed differently online than face-to-face. It was especially noticeable when pupils were compared in face-to-face training. Research suggests that female students, independent of instructor, do better than male pupils. That female students performed somewhat better than male students in virtual classes but substantially better in person. According to a student survey, falling behind in an online class makes it hard to catch up, and waiting for an instructor to unlock an exam or advance the student is sometimes frustrating. Students likely failed their online courses because of this. Passing their first online course improved students' passing rates in subsequent courses. Students failed the challenging online course because they couldn't manage their time and prioritise their tasks. Many students quit trying to catch up after falling behind. Many students completed their next online course because they were more conscious of the time commitment. When told what was anticipated and that they may repeat sessions if they struggled, students were more positive about online education. Why male students do worse than female students in online and traditional classes is unknown. Some women like online courses because they can easily review previous material. The men's poor performance may have been due to being denied this chance. More research on gender and learning is needed to explain why males are less likely to succeed academically.

9. CONCLUSION

This research examined gender and teaching approach variations in alternative education students' GPAs. This study found that women outperform men in online and face-to-face courses, but its limited sample size and single educational institution limit its conclusions. Researching this event at other alternative high schools may expand the sample size. Most research comparing classroom and online teaching has been done at universities. Many educational institutions are adding online learning to their curricula due to its ease of access and rising demand. Despite the benefits of online education, it is unclear whether they improve grades. Additional research on high school online learning may reveal student success factors. This is because kids learn differently. Educational institutions should consider their financial capacity before providing online programmes. Because of a rising demand for online courses or because other educational institutions are doing so, adding them to the curriculum may not be the best decision for a specific school. To determine what makes online education effective, further study is needed. Even though participants had to pass a competence evaluation and EL students were excluded, that participants improved in their core courses. Online course scores may climb for students who are already proficient, but they may not for those who have failed the subject before. Students in alternative education classes may be learning English, emotionally distressed, intellectually behind, or navigating teenage parenthood. These are not the only factors that determine a child's success in alternative education. To help alternative education students succeed academically, more research is needed in non-traditional learning venues like online courses.

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