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Research Trends of selected articles on Modern Instructional Materials and Academic Learning

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Abstract: ***This study examined the implications of modern instructional materials in academic learning. The criteria outlined in this study were applied to previous studies that could be analysed. The researchers looked at 100 studies that met the inclusion criteria and were conducted between 2012 and 2022. The researchers looked for studies that supported their argument from all over the world, but they focused primarily on Asia and Africa. Furthermore, the researchers sourced their articles from national and international databases such as "Science Direct," "Springer Link," "Educational Resource Information Center (ERIC)," "Google Scholar," and "JSTOR." They then used them to extract data so that they could compare and draw conclusions. The descriptive approach-based analysis produced the following results: 93 out of 100 articles stated that the use of modern instructional materials is beneficial, while 7 out of 100 studies stated that it is not beneficial in their learning, and that there are phenomenon and factors that affects the effectiveness of modern instructional materials. Many researchers believe that using modern instructional materials is beneficial in a variety of ways, and only a few do not. The researchers then investigated the underlying factors that caused it. These factors include their age, year of birth, environment, culture, and so on.***

Keywords: ***Modern Instructional Materials, Technology, Projector, Power Point Presentation, Learning.***

1. INTRODUCTION

Today's technology advances swiftly, affecting every aspect of our lives including the educational element. It is now required to reconstruct educational environments as a result of the advancement of technological innovations in the field of education. As a result, numerous

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ways and techniques utilizing technology tools in education are required to facilitate and make sense of in-class instruction and raise the students' curiosity and attention. One of these ways that have been made vital by modern technology is the use of advanced instructional materials, which can be utilized in conjunction with technology as part of computer-assisted instruction. Using instructional materials helps students understand concepts and ensures long-term memory of the concepts and subjects covered in class [87]. The use of modern instructional materials is undeniably rampant even before the COVID-19 pandemic. When online classes began in the year 2021, the use of modern instructional materials was greatly exercised.

In this Systematic Review, the researchers focused on the literatures in line with the utilization of modern instructional materials and how it supplements the students' learning process, acquisition of certain skills and as well as how they affect students' performance in their studies. There are numerous studies that resulted to justifiable point of views on this matter; however, the researchers were not able to find literature that focused on the bigger picture. Most of the existing studies online; they focus only in a specific place. Researchers found that there are liable factors as to why a few of the gathered literatures concluded why the use of modern instructional material is not that effective or beneficial to students.

As stated above, investigations on the usefulness of using contemporary teaching materials in various fields have increased. However, a holistic approach to studying the findings of these investigations did not yield many complete findings. In this instance, it is true that systematic analytical studies are required in order to assess the findings of several investigations holistically and arrive at a general conclusion. Therefore, it is believed that current reviews in this sector will enlighten the subject and serve as a source for future research. The research is therefore regarded as significant in terms of offering a broad conclusion on the efficacy of modern instructional materials.

2. METHODOLOGY

A systematic review is a review of a formulated question that employs systematic and reproducible methods to locate, select, and critically evaluate all pertinent research as well as collect and analyze data from the studies that are included in the review [35]. In addition, quantitative and qualitative methods can be used in a systematic review. Systematic review locates, picks, and synthesizes all relevant evidence using repeatable techniques. It provides a direct response to a well-stated research topic and details the approaches taken to reach a conclusion [102].

This study aimed to determine the importance of the modernization of instructional materials and how it affects teachers and students while they learn. It also seeks to determine whether or not technology is helpful in the classroom and whether or not students benefit from using modern instructional resources.

This inquiry is primarily quantitative in nature. It employs a quantitative non-experimental design in particular. The researchers chose this because their study observes, describes, and documents various aspects of a phenomenon [64]. The researchers used the descriptive approach as its goal is to precisely and methodically describe a population, circumstance, or

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phenomenon. It can respond to inquiries about what, where, when, and how, but not why. To explore one or more variables, a descriptive research design might employ a wide range of research techniques. When the goal of the research is to identify traits, occurrences, patterns, and categories, descriptive research is the best option [93].

Furthermore, the researchers also utilized the matrix method. The matrix method is a system of rows and columns into which the components of a research project fit, including the goal, objectives, definitions, hypotheses, variables, methods of analysis, and anticipated conclusions [32]. Each square in the matrix represents a potential intersection between various subtopics of the main subject which is why the researchers felt compelled to use it for their paper as it will really help in organizing their articles. It is an organizational tool that presents connections between available research articles and particular aspects of a chosen topic by having articles on one side and the specific aspects of the topic on the other.

The researchers gathered studies that supported their argument from many continents; however, they mainly concentrated on Asia and Africa. They collected 100 articles, analyzed them, and looked for usage trend patterns within 10 years backward from the current year. After that, they used them to extract data to compare them all and draw conclusions. In addition, the researchers used national and international databases such as "Science Direct", "Springer Link", "Educational Resource Information Center (ERIC)", "Google Scholar", "JSTOR", and "ProQuest Dissertation & Thesis Global" as the source of their articles.

3. RESULTS

3.1 Educational Forms & Levels

Table 1 shows the educational form or how and where learning took place at each educational level as reported in selected articles. Formal education was the most researched form, being studied in 78 (78.00%) articles, followed by Blended learning, which garnered 19 studies (19.00%). Informal education got the least score with only 3 studies involved (3.00%).

Moreover, the most explored level came from Secondary Education, being studied with 28 articles (28.00%), followed by Higher Education with 15 articles (15.00%), and Primary School with 11 articles (11.00%). Kindergarten got the least score with only 1 article out of 100 selected. There were 29 articles (29.00%) that did not specify where their samples came from.

Table 1. Educational forms by educational level that were studied in the selected articles.

	Educational Form			
Educational Levels	**Formal**	**Informal**	**Blended**	**Total**
Kindergarten/Preschool	1			1
Primary School/Grade School	11	1	3	15

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Secondary Education	23	1	5	29
Higher Education	14	1	9	24
Not specified	29		2	31
Total	78	3	19	100

3.2 Employed Study Design

Table 2 shows different research methodological approaches from 106 articles. The most used design was quasi-experiments in 41 (41.00%) articles. The approach uses pre-tests and post-tests to measure the effectiveness of modern instructional materials when used in learning. Quantitative approaches were found to be the second most used design, used in 25 (25.00%) articles, followed by Mixed Methods in 17 (17.00%) articles, and Qualitative design in 14 (14.00%) articles. The least used designs were surveys & case studies.

Table 2. Research designs and how frequently they were used.

Research Design	Frequency	Percentage
Quasi-experimental	41	41.00%
Qualitative	14	14.00%
Quantitative	25	25.00%
Mixed Methods	17	17.00%
Survey	2	2.00%
Case Study	1	1.00%
Total	**100**	**100%**

3.3 Summary of Gathered Articles

Table 3 shows a summary of selected studies with their intended theme and findings. The most studied theme was audio-visual instructional materials, being involved in 64 (64.00%) papers. This theme consists of videos, procedural content, simulations, and AR (augmented reality). Moreover, there are 36 (36.00%) articles that studied visual instructional materials, particularly PowerPoint presentations, projectors, and infographics.

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According to their findings, 93 (93.00%) of these articles concluded that modern instructional materials moderately & significantly increased students' learning experiences, while the other 7 (7.00%) of the papers stated there were no differences.

Table 3. Authors with their respective positive and negative findings from their studies.

CONCEPTS / REFERENCES	Visual	Audio Visual	Beneficial	Not Beneficial
Aquino (2019)	✓	✓	✓	
Amin, et al (2018)	✓		✓	
Sykes (2012)		✓	✓	
Agustin (2021)		✓	✓	
Rista (2021)		✓	✓	
Gambari, et al (2015)	✓		✓	
Petimani and Adake (2015)	✓			✓
Chou et al (2015)	✓		✓	
Fazi and Hanifa (2018)	✓		✓	
Onivehu and Ohawuiro (2018)	✓		✓	
Shigli et al (2016)	✓		✓	
Pros et al (2013)	✓			✓
Pham and Nguyen (2018)	✓		✓	
Lari (2014)	✓		✓	
Nur Aziz and Dewi (2020)	✓		✓	
Jassim and Abdullah (2021)	✓		✓	
Akhlagi and Zareian (2015)	✓		✓	
Fauzi and Hanifa (2018)	✓		✓	
Agbevivi (2018)	✓		✓	
Gordani and Khajavi (2019)	✓		✓	
Kostereliogl u (2016)		✓	✓	

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Lui (2015)	✓		✓	
Alber (2019)		✓	✓	
Krasna & Bratina (2014)		✓	✓	
Bevan (2020)		✓	✓	
Brame (2015)		✓	✓	
Higgin (2018)		✓	✓	
Nguyen and Le Thi (2012)		✓	✓	
Strasser (2014)	✓			✓
Yujong and Eunsu (2016)		✓	✓	
Demir et al. (2020)		✓	✓	
Almurashi (2016)		✓	✓	
Qassim and Abbas (2020)		✓	✓	
Hong and Huan (2018)	✓		✓	
Amadi and Oriji (2017)		✓	✓	
Negro et al. (2012)		✓	✓	
Yurumezeglu and Songul (2013)		✓	✓	
Drexhage et al. (2016)		✓	✓	
Bajrami and Ismaili (2016)		✓	✓	
Obagah and Brisibe (2017)		✓	✓	
Solomon (2017)		✓	✓	
Purwanti et al. (2022)		✓	✓	
Lin et al. (2017)	✓	✓	✓	
Mamon (2014)	✓		✓	
Sunder (2018)		✓	✓	
Wijaya (2017)	✓		✓	
Shansideen (2016)		✓	✓	

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Asejo (2019)		✓	✓	
Arifin (2020)	✓	✓	✓	
Ghavifekr and Rosdy (2015)		✓	✓	
Penciner (2013)	✓		✓	
Lazar (2015)		✓	✓	
Bahadorvar and Omidvar (2014)		✓	✓	
Jian-hua and Hong (2012)		✓	✓	
Rodinadze and Zarbazoia (2012)		✓	✓	
Almarabeh et al. (2015)		✓	✓	
Asadi and Berimani (2015)		✓	✓	
Aiyedun and Ogunode (2020)		✓	✓	
Romano et al. (2020)		✓	✓	
Sola (2014)		✓	✓	
Nicolas (2019)		✓	✓	
Warren (2012)		✓		✓
Barlis (2013)		✓		✓
Thiong'o et al. (2013)		✓	✓	
Achor et al. (2014)		✓	✓	
Eze et al. (2020)		✓	✓	
Cyril (2016)		✓	✓	
Adedoja and Fakokunde (2015)		✓	✓	
Suleman and Hussain (2017)		✓	✓	
Spradlin et al. (2020)		✓	✓	
Adolfus and Omeodu (2020)		✓	✓	
Gambari and Hassan (2017)		✓	✓	
Dharnija and Kumari (2016)		✓	✓	

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Kevogo et al. (2013)		✓		✓
Tareef (2014)		✓	✓	
Achor and Ukwuru (2014)		✓	✓	
Jane et al. (2017)		✓	✓	
Israel et al. (2021)		✓	✓	
Olalekan et al. (2016)		✓	✓	
Duyilemi et al. (2014)		✓	✓	
Ajoke (2017)	✓		✓	
AbuSa'aleek (2014)		✓	✓	
Alrashidi and Phan (2015)		✓		✓
Guo et al. (2021)	✓		✓	
Cakici (2016)		✓	✓	
Nguyen (2021)		✓	✓	
Cai et al. (2022)		✓	✓	
Zhang and Zhou (2022)		✓	✓	
Khalaf and Dzakiria (2018)	✓		✓	
Alkamel and Chouthaiwale (2018)	✓		✓	
Hafeez (2021)	✓		✓	
Susanty et al. (2021)	✓		✓	
Ahmadi and Reza (2018)		✓	✓	
Gilakjani (2018)	✓		✓	
Ghanizadeh and Jahedizadeh (2015)		✓	✓	
Musa (2018)	✓		✓	
Cong-Lem (2018)		✓	✓	
Acar and Kayaoglu (2020)	✓		✓	
Jeong (2017)	✓		✓	

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Pujasari and Ruslan (2021)	✓		✓	

3.4 Hardware used

The data in Table 4 shows the types of hardware and how frequently they were used to convey modern and digitized instructional materials. Computers ranked first on the list with 25 (25.00%) since they were used to display digital content such as videos, simulations, & computer-aided materials. On the other hand, smartphones were found to be used in 18 (18.00%) articles, being a tool to access video conferences and other related materials.

The least frequently used hardware were projectors, found in only 7 (7.00%) articles. However, half (50.00%) of the selected articles did not mention what sort of hardware they used to convey the modern instructional materials.

Table 4. Most frequently used hardware.

Hardware Type	Frequency	Percentage
Computers (PC, laptops)	25	25.00%
Smartphones	18	18.00%
Projectors	7	7.00%
Not specified	50	50.00%

3.5 Software Used

Table 5 shows the type of software used when conveying instructional materials. PowerPoint Presentations were used in 24 (24.00%) articles, being a tool to showcase interactive and flexible content. Computer-aided Instructional tools were the second most used software, being a tool to help clearly define and visualize instructions and examples.

Video clips come next with 19 (19.00%) articles. Videos help demonstrate or provide a clear visualization of subjects. The following software such as LMS, Simulators, and Video Conference Tools was the least used. 16 (16.00%) articles did not specify what sort of software they used.

Table 5. Most frequently used software to convey material.

Software Type	Frequency	Percentage
PowerPoint Presentation	24	24.00%
Learning Management System (LMS)	9	9.00%
Simulators	8	8.00%
Video Conference Tools	2	2.00%

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Video Clips	19	19.00%
Computer-aided Instructional tool (CAI)	22	22.00%
Not specified (general use)	16	16.00%

3.6 Fields of Study

The data in Table 6 shows the varying learning disciplines found in the matrix. Language comes first with 38 (38.00%) articles, with findings of increased efficacy in reading, writing, and speaking. Physics comes second with 6 (6.00%) articles, followed by both Technical and Biology, all of which use simulations and computer-aided instruction. Moreover, the articles that focused on learning motivations fall under the General category.

Table 6. The Frequency of Disciplines Studied.

	Educational Form							
	Formal		**Informal**		**Blended**		**Total**	**%**
	Frequency	%	Frequency	%	Frequency	%		
Language	38	0.38	1	0.01	5	0.05	44	0.44
Technical	4	0.04			2	0.02	6	0.06
Social Science	1	0.01	1	0.01	1	0.01	3	0.03
Biology	4	0.04			2	0.02	6	0.06
Physics	6	0.06					6	0.06
General	29	0.29	1	0.01	5	0.05	35	0.35

3.7 Trends in frequency of studies

The line chart below shows the number of articles selected and their region of origin. Asia has the highest number, comprising 57 articles (57.00%), with 14 articles around the years 2012-2014, 11 articles in 2015-2017, 19 articles in 2018-2021, and 13 articles in 2022. Followed by Africa with a total of 24 articles (24.00%), then North America with 10 articles (10.00%), then Europe with 3 articles (3.00%). The remaining numbers are retrieved from websites, thus, not specified.

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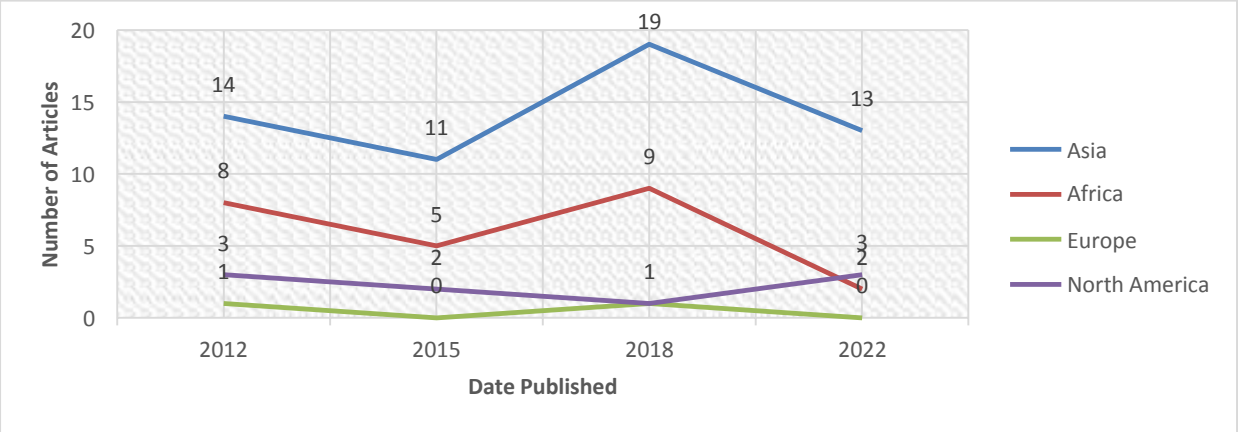

Figure 1. Trends in frequency of the related literature's region of origins.

4. DISCUSSION

4.1 Role of Modern Instructional Materials in Different Educational Levels

As defined in Table 1, it can be seen that the majority of those articles explored the efficacy of modern instructional materials in Secondary Education students. High school students are more likely to engage in learning, especially when it is incorporated with video clips [92]. Based on the numbers and how it is sequenced, the climax or the pinnacle of frequencies happened to be during high school. Several causal factors would be considered, including the curriculum and the need for the demonstration to students. For instance, biology, arts, and languages are components of a secondary education level. Considering today's technological development, high school students would expect a clear visualization of the subjects covered, such as a video on how to dissect a frog, how to dance and paint, or how to pronounce words.

Furthermore, it is highly likely that the integration of these materials will occur inside the school premises. Even with modern intervention, students still need to be looked for by facilitators of these materials. Blended learning is also a plausible phenomenon for a digitized learning experience, because, as the term goes, it blends both traditional and digital approaches to learning. However, there are still little to no studies involving informal learning.

In addition to implementation, grade schoolers have become adaptable to digitized content. It is stated that young learners often engage in academic and social learning when there is technology involved; to them, it is simple and fun to learn with [20][83]. However, there are also drawbacks, especially if instructors encourage self-directed learning; availability of devices, distractions, and many causal factors to demotivation.

Moreover, third-world countries are prone to these disadvantages. For instance, Nigeria as a developing country perhaps perceives modern instructional materials as impractical, considering the economic and cultural restrictions of students. Albeit financial incapability, the

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students and facilitators of Nigeria, and even in amongst third-world countries in Africa and Asia, still find modern instructional materials as effective tools for efficient learning.

4.2 Major Methodologies and Identified Findings

The findings that were defined in Table 2 showed quasi-experiments as the most used research design, representing 41% out of 100 papers collected. In the context of these studies, there was a lack of randomization in the control and experimental groups, and the use of pre-tests and post-tests to measure the difference between traditional and modern instructional materials in terms of effectiveness. Thus, it can be said that the findings from 41 studies are related to knowledge acquisition.

Two of the major designs that followed were quantitative and mixed methods. Both characterize numbers; however, the latter also uses descriptive analysis to answer questions related to the effectiveness of learning with modern instructional materials. The major designs mentioned above represented at least 80% of the total approaches used, further implying that there were significant differences between traditional and digitized content.

4.3 Interrelating Demography and Digitized Content

It all boils down to learning motivation and engagement when digitized content is concerned with learning. These influential factors determine the outcomes of student evaluation after incorporating such content into their learning, and it can be likely that they have assimilated the concepts faster than with the usual approaches. Researchers from various countries have pointed out that, if implemented correctly, the desired results can be achievable.

On the contrary, some stated that digitized materials are ineffective and a distraction to students. Effects can vary for a number of reasons, and it narrows down to how students use these digital materials to good use.

In a clearer picture, many studies from Indonesia suggest that external factors such as cultural and financial restrictions (e.g., poverty, parental guidance, tech illiteracy) can possibly hinder desired outcomes from digitized content [50]. Another study in Kenya stated that the general use of computers has no relationship whatsoever with the performance of students in Biology [55] since students have no access to these things prior to their course learning. To sum it up, hardware types such as computers, tablets, or projectors can be pricey when purchased in bulk by universities or schools stricken by poverty. Accessibility and availability are terms still not yet achieved by third-world countries; hence, they are still preparing the economy and the educational sector on adapting to digital content with little to no disadvantages. Countries like the USA, Canada, and Iran, are first-world countries with little to no setbacks that occurred in implementing MIM into the classroom setting.

4.4 Approaches to Different Disciplines

Apparently, language seems to be a leading field in the usage of these materials. With over 38 (38%) articles, being a discipline that needs further demonstration and application. Examples would be reading, writing, and speaking. A PowerPoint Presentation is a popular

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and in-demand tool among students in EFL and ESL learners, being a tool that can help clearly visualize content that is usually too drenched with texts. [7]. Not only that, learners are found to be more competent in grammar and vocabulary after incorporating Slides (another term for PowerPoint) in their lessons [12]. Moreover, students find themselves engaging and enjoying classroom activities with videos since they understand the subject better, making them confident and excited [57][58].

In addition, language learning can be difficult without proper examples of its auditory properties. For instance, videos help demonstrate pronunciations in specific fields such as phonetics [25]. In the case of English classes, videos can become a supplementary alternative to teaching [16]. It is highly likely that when language is clearly defined, students will learn it quickly. As such, language should stick with easily accessible and repeatable content materials.

Further, there are also studies that involve architecture, automotive, and other skills that fall under the Technical category. In this case, simulations and procedural content are perfect tools for efficient learning in objective and clinical fields. Students from these studies are likely to engage in videos due to their repeatability features [36][72]. For instance, student architects need to watch several hours of content to finally understand microdetails about 3D software, or a student mechanic repeating a video tutorial on how to remove a spray nozzle of a carburetor.

Physics, Biology, and Social Science comprise no more than 10%. Articles that cover general topics and findings, especially on learning motivations, and in literature reviews, fall under the General category. These are articles that do not have an intended study of a specific discipline.

4.5 Gaps not Addressed

The current systematic review has explored the tendencies of MIM research which has taken place mostly in Asia and Africa. Minimal studies have been found in places in Europe and North America, for instance, Spain and Canada. Therefore, there is still room for investigation in these regions regarding the effects of modern instructional materials on learning.

In addition, few papers have only addressed informal learning, as well as studies on the preschool or kindergarten level. Thus, the idea of integrating modern instructional materials into outdoor learning is yet to be reviewed.

Furthermore, the reviewed articles were mostly free of charge from public access. Due to financial restrictions, there were relevant cases we did not include in our systematic review. Thus, there are still unexplored articles that require further investigation with regard to the efficacy of modern instructional materials.

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5. CONCLUSION

While it is clear as daylight that modern instructional materials provide advantages to learning, there are also setbacks to consider despite only a percentage. The effectiveness of digitized content varies for a number of reasons, namely; the nature of the learners, economic factors, the learned discipline, and the availability of resources. Having these key terms evaluated supports a foundation of effective learning from modern instructional materials. While most articles were reviewed on the integration of digital materials in a classroom setting,especially in secondary and higher education, there is still a lack of study on informal learning. In addition, the lack of studies relating to pre-schoolers gives an opportunity to explore the integration of modern instructional materials with young learners.

Recommendations

There are little to no studies that show how MIM can be just as effective with informal learning as formal learning. Thus, it is highly encouraged that future studies should seek possible interventions of MIM with outdoor learning. On the other hand, evidently, pre-schoolers often need physical or tangible items attributed to learning, which gives us another question on the possibilities of the integration of MIM in basic learning.

6. REFERENCES

1. AbuSa'aleek, A. O. (2014). A Review of Emerging Technologies: Mobile Assisted Language Learning (MALL). Asian Journal of Education and e-learning, 2(6).
2. Acar, A., & Kayaoglu, M. N. (2020). MOODLE as a Potential Tool for Language Education under the Shadow of COVID-19. Eurasian Journal of Educational Research, 90, 67-82.
3. Achor, E. E., Ogbeba, J., Williams, U. (2014). In search of interactive teaching strategy that could yield high achievement in biology: An examination of computer-based instruction in some secondary schools in Nigeria. SSRN. Retrieved September 5, 2022, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2393505
4. Achor, E. E., Ukwuru, J. O. (2014). An examination of the facilitative effect of the Computer Assisted Instruction (CAI) in students' achievement in chemical reaction and Equilibrium. Retrieved September 5, 2022, from http://article.sapub.org/10.5923.j.edu.20140401.02.html
5. Adedoja, J. O., Fakokunde, J. B. (2015). Effects of computer-based instructional puzzle on students' learning. Retrieved September 5, 2022, from https://www.ijhssnet.com/journals/Vol_5_No_11_November_2015/19.pdf
6. Adolphus, T., Omeodu, M. (2020). Effects of computer-assisted instruction on students' achievement in atomic and nuclear physics in Senior Secondary Schools in River State. Retrieved September 5, 2022, from https://www.researchgate.net/publication/340322188
7. Agbevivi, S. L. G. (2018, January 1). The Use of PowerPoint in Teaching and Learning English in the University of Education, Winneb. Semantic scholar. Retrieved September 12, 2022, from https://www.semanticscholar.org/paper/The-use-of-PowerPoint-in-teaching-and-learning-in-%2C-

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

Agbevivi/cab1b692a4eae359c6eec6e6109ae722fabda3e1

8. Agustin, D. (2021). Using Youtube Clips for EFL Classroom Activities "Thesis". Digilib. Retrieved September 5, 2022, from https://digilib.uinsby.ac.id/48057/
9. Ahmadi, D., & Reza, M. (2018). The use of technology in English language learning: A literature review. International Journal of Research in English Education, 3(2), 115-125.
10. Aiyedun, T. G., & Ogunode, N. J. (2021). School administration and effective teaching methods in science education in North Central Nigeria. SSRN. Retrieved September 16, 2022, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3927799
11. Ajoke, A. R. (2017). The importance of instructional materials in teaching English ss a second language. International Journal of Humanities and Social Science Invention, 6(9), 36-44.
12. Akhlaghi, M., Zareian, G., & Razavi, K. (1970). The effect of PowerPoint presentation on grammar and vocabulary learning of Iranian pre-university EFL learners. Semantic scholar. Undefined. Retrieved September 12, 2022, from https://www.semanticscholar.org/paper/The-Effect-of-PowerPoint-Presentation-on-Grammar-of-Akhlaghi-Zareian/f3e555a94b8e1f521d43cc1cd615e670fad60174
13. Alamarabeh, H., Amer, E., & Sulieman, A. (2015). The Effectiveness of Multimedia Learning Tools in Education. Research Gate. Retrieved September 16, 2022, from https://www.researchgate.net/publication/290429349_The_Effectiveness_of_Multimedia_Learning_Tools_in_Education
14. Alber, R. (2019, March 18). Using video content to amplify learning. Edutopia. Retrieved September 16, 2022, from https://www.edutopia.org/article/using-video-content-amplify-learning
15. Alkamel, M. A. A., & Chouthaiwale, S. S. (2018). The use of ICT tools in English Language teaching and learning: A literature review. Veda's journal of English language and literature-JOELL, 5(2), 29-33.
16. Almurashi, W. A. (2016, April). The effective use of YouTube videos for teaching English language in classrooms as supplementary material at Taibah University in Alula. Retrieved September 16, 2022, from https://scholar.google.com/
17. Alrashidi, O., & Phan, H. (2015). Education Context and English Teaching and Learning in the Kingdom of Saudi Arabia: An Overview. English Language Teaching, 8(5), 33-44.
18. Amadi, R., & Oriji, A. (2017, August). Technology across curriculum: The utilization and abuse of PowerPoint as teaching and learning tool. Google scholar. Retrieved September 16, 2022, from https://scholar.google.com/
19. Amin, R., Azim, M., Kalam, A., & Salam, A. (2018). The benefit of using multimedia projector in English language teaching. Research Gate. Retrieved September 11, 2022, from https://www.researchgate.net/publication/327282052_The_Benefit_of_Using_Multimedia_Projector_in_English_Language_Teaching_Classroom
20. Aquino, V. S. P. (2019). Effects of Digitized Instructional Materials in the Performance of Grade 3 Learners in English. San Carlos Research Journal. Retrieved September 5, 2022, from https://sancarloscollege.edu.ph/wp-content/others/research%20no%206.pdf
21. Arifin, S. A. (2020). The Implementation of Technology in Teaching English by the Teacher at SMP UNISMUH MAKASSAR. Digilab. https://digilibadmin.unismuh.ac.id/upload/10791-Full_Text.pdf

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

22. Asadi, F., & Berimani, S. (2015). The Effect of Audio-Visual Materials on Iranian Second Grade High School Students' Language Achievement. Google Scholar. Retrieved September 16, 2022, from http://article.langlinguist.org/pdf/10.11648.j.ijll.20150302.15.pdf
23. Asejo, D. J. (2019). Effects of Digitized Instructional Materials in the Performance of Garde 6 Learning in Araling Panlupunan. San Carlos College Research Journal. Retrieved September 16, 2022, from https://sancarloscollege.edu.ph/wp-content/others/research%20no%206.pdf
24. Bahadorvar, M., & Omidvar, R. (2014). Technology in Teaching Speaking Skill. Research Gate. Retrieved September 16, 2022, from https://www.researchgate.net/publication/315790125_TECHNOLOGY_IN_TEACHING_SPEAKING_SKILL
25. Bajrami, L., & Ismaili, M. (2016, October 20). The role of video materials in EFL Classrooms. Procedia – Social and Behavioral Sciences. Retrieved September 16, 2022, from https://www.sciencedirect.com/science/article/pii/S1877042816313003
26. Barlis, J., (2013). Effectiveness of Simulation and Computer Assisted Instruction (CAI) on the Performance of Students under Semi Regimental Training on Selected Topics in Physics II. Retrieved September 5, 2022, from https://proceedings.spp-online.org/article/view/SPP2012-2A-3
27. Bevan, M. (2020, March 25). Learn the reasons why videos are important in Education. Google. Retrieved September 16, 2022, from https://www.google.com/amp/s/www.nextthoughtstudios.com/video-production-blog/2017/1/31/why-videos-are-important-in-education%3fhs_amp=true
28. Brame, C. (1970, August 17). Effective educational videos. Vanderbilt University. Retrieved September 16, 2022, from https://cft.vanderbilt.edu/guides-sub-pages/effective-educational-videos/
29. CAI, Y., Pan, Z., & Liu, M. (2022). Augmented reality technology in language learning: A meta- analysis. Journal of Computer Assisted Learning.
30. Cakici, D. (2016). The use of ICT in teaching English as a foreign Language. Participatory educational research, 4(2), 73-77.
31. Campo, J. M. Del, Negro, V., & Núñez, M. (2013, November 13). Use and abuse of audiovisual media in the college classroom. Slides show and web pages. Procedia – Social and Behavioral Sciences. Retrieved September 16, 2022, from https://www.sciencedirect.com/science/article/pii/S1877042813032795
32. Choguill, C. L. (2005). The research design matrix: A tool for development planning research studies. Habitat International, 29(4), 615–626. https://doi.org/10.1016/j.habitatint.2005.06.001
33. Chou, P.-N., Chang, C.-C., & Lu, P.-F. (2015). Prezi versus Powerpoint: The Effects of Varied Digital Presentation Tools on Students' Learning Performance. Computers & Education. Retrieved September 5, 2022, from https://www.sciencedirect.com/science/article/pii/S0360131515300695
34. Cong-Lem, N. (2018). Web-based language learning (WBLL) for enhancing L2 Speaking performance: A review. Advances in Language and Literary Studies, 9(4), 143-152.

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

35. Curtin University Library (2022). Review types: Systematic Reviews. Research Toolkit. Curtin Library. Retrieved September 15, 2022, from https://libguides.library.curtin.edu.au/systematic-reviews
36. Cyril, M. U. (2016). Effect of computer-assisted instruction and demonstration method of teaching automobile technology in Federal Colleges of Education Technical in North Eastern Nigeria. Retrieved September 5, 2022, from https://www.researchgate.net/publication/324896258
37. Dhamija, D. N., Kumari, M. (2016). Effectiveness of computer-assisted instruction on the academic achievement in mathematics for secondary school students. Retrieved September 5, 2022, from https://www.semanticscholar.org/paper/a674ff3a0ac7cde5db38c0507993acbdcdc27813
38. Drexhage, J., Leiss, D., Schmidt, T., & Ehmke, T. (2016). The connected classroom: Using video conferencing technology to enhance teacher training. Google scholar. Retrieved September 16, 2022, from https://scholar.google.com/
39. Duyilemi, A. N., Olagunju, A. M., Olumide, O. J. (2014). Effects of computer simulation package, gender and parental education on Nigerian Secondary School Students' Attitude towards Biology. Retrieved September 5, 2022, from https://www.21caf.org/uploads/1/3/5/2/13527682/duyilemi-hrd-conference_proceedings.pdf
40. Eze, A. N., Ezenwafor, J. I., Onwusa, S. C. (2020). Effect of computer-based instruction on students' achievement and retention of high and low achieving auto-mechanics technology in Technical Colleges. Retrieved September 5, 2022, from https://www.researchgate.net/publication/34933950
41. Fadhil Abbas, N., & Ali Qassim, T. (2020). Investigating the effectiveness of YouTube as a learning tool among EFL students at Baghdad University. SSRN. Retrieved September 16, 2022, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3676002
42. Fauzi, I., & Hanifah, D. (2018). Developing Students' Speaking Ability through Powerpoint Presentation. ASEAN/Asian Academic Society International Conference Proceeding Series. Retrieved September 5, 2022, from http://aasic.org/proc/aasic/article/view/355
43. Gambari, A. I., Yusuf, H. T., & Balogun, S. A. (2014). Effectiveness of Powerpoint Presentation on Students' Cognitive Achievement in Technical Drawing. Malaysian Online Journal of Educational Technology. Retrieved September 5, 2022, from https://eric.ed.gov/?id=EJ1085923
44. Gambari, A., Hassan, S. A. (2017). Effects of Instructional Screencast on the Performance of National Open University Undergraduates in Educational Technology in Kwara State, Nigeria. Retrieved September 5, 2022, from https://www.researchgate.net/profile/Isiaka-Gamabri/publication/361262944
45. Ghanizadeh, A., Razavi, A., & Jahedizadeh, S. (2015). Technology-enhanced Language learning (TELL): A review of resources and upshots. International Letters of Chemistry, Physics and Astronomy, 54, 73-87.
46. Ghavifekr, S., & Rosdy, W. A. (2015). Teaching and Learning with Technology: Effectiveness of ICT Integration in Schools. ERIC - Education Resources Information Center. https://eric.ed.gov/?id=EJ1105224

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

47. Gilakjani, A. P. (2017). A review of the literature on the integration of technology into the learning and teaching of English language skills. International Journal of English Linguistics, 7(5), 95-106.
48. Gordani, Y., & Khajavi, Y. (2019, July 31). The impacts of multi-modal Powerpoint presentation on the EFL Students' content knowledge attainment and retention over time – education and Information Technologies. SpringerLink. Retrieved September 12, 2022, from https://link.springer.com/article/10.1007/s10639-019-09979-z
49. Guo, L., Guo, Y., Xue, Z., Zhou, J., & Xu, Y. (2021). The Internet+ Age Brings Opportunities and Challenges to English Teaching. Advances in Educational Technology and Psychology, 5(9), 93-103.
50. Hafeez, M. (2021). Systematic review on modern learning approaches, critical thinking skills and students' learning outcomes. Indonesian Journal of Educational Research and Review, 4(1).
51. Israel, K., Bodirwa, K. B. (2021). The effect of using computer simulations on grade 11 learners' performance in Plants Biodiversity in South Africa. Retrieved September 5, 2022, from https://www.researchgate.net/publication/354097020
52. Jassim, L. L., & Abdullah, Y. A. (2021). Original Research Article Using PowerPoint in Learning Prepositions. Research Gate. Retrieved September 11, 2022, from https://www.researchgate.net/publication/354006004_Original_Research_Article_Using_PowerPoint_in_Learning_Prepositions_A_case_study_at_University_of_Basrah
53. Jeong, K. O. (2017). The Use of Moodle to Enrich Flipped Learning for English as A Foreign Language Education. Journal of Theoretical & Applied Information Technology, 95(18).
54. Jian-hua, S., & Hong, L. (2012). Explore the Effective Use of Multimedia Technology in College Physics Teaching. Energy Procedia, 17, 1897–1900. https://doi.org/10.1016/j.egypro.2012.02.329
55. Kevogo, N., Toili, W., Nutsotso, S. (2013). Effect of General Computer Use on Secondary School Student's Performance in Biology. Retrieved September 5, 2022, from http://dx.doi.org/10.15580/GJCS.2013.1.111213955
56. Khalaf, R. Z., & Dzakiria, H. (2018). A Review: Effective Use of Technological Tools to Teach English in Private Schools.
57. Kosterelioglu, I. (2015). Student Views on Learning Environments Enriched by Video Clips. Universal Journal of Educational Research. Retrieved September 16, 2022, from https://eric.ed.gov/?id=EJ1089708
58. Krasna, M. (2014). Video Learning Materials for Better Students' Performance. Retrieved September 16, 2022, from https://www.proquest.com/openview/058c84ecfd436cf965eacb1556000ab0/1?pq-origsite=gscholar&cbl=2042228
59. Lari, F. S. (2014). The Impact of Using PowerPoint Presentations on Students' Learning and Motivation in Secondary Schools. Procedia – Social and Behavioral Sciences. Retrieved September 12, 2022, from https://www.sciencedirect.com/science/article/pii/S1877042814026834

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

60. Lazar, S. (2013). The Importance of Educational Technology in Teaching. КиберЛенинка. Retrieved September 16, 2022, from https://cyberleninka.ru/article/n/the-importance-of-educational-technology-in-teaching
61. Lin, M.H., Chen, H., & Liu, K.S., (2017). A Study of the Effects of Digital Learning on Learning Motivation and Learning Outcome. EURASIA Journal of Mathematics, Science and Technology Education, 13(7). https://doi.org/10.12973/eurasia.2017.00744a
62. Liu, L.-Y., & Cheng, M.-T. (2015, March 31). Interactive Projector as an Interactive Teaching Tool in the classroom: Evaluating Teaching Efficiency and Interactivity. Turkish Online Journal of Educational Technology – TOJET. Retrieved September 16, 2022, from https://eric.ed.gov/?id=EJ1057376
63. Mamon, M. A., Esperanza, A., & Vital, J. A. (2018). Research Based Learning: Effects of Meta Cognitive Awareness of Senior High School Students. Google Scholar. https://scholar.google.nl/scholar_url?url=https://e-journal.usd.ac.id/index.php/IJIET/article/download/2540/1930&hl=en&sa=X&ei=2XAkY6DbD6WTy9YP1c6DkAE&scisig=AAGBfm0qRv03t5ceSkQg-RiVUrei6zvOGg&oi=scholarr
64. McCombes, S. (2022). Descriptive Research: Definition, Types, Methods, & Examples. Scribbr. Retrieved September 15, 2022, from https://www.scribbr.com/methodology/descriptive-research/
65. Mihindo, J., Wachanga, S. W., Anditi, Z. (2017). Effects of Computer-Based Simulations Teaching Approach on Students' Achievement in the Learning of Chemistry among Secondary School Students in Nakuru Sub County, Kenya. Retrieved September 5, 2022, from https://files.eric.ed.gov/fulltext/EJ1133108.pdf
66. Musa, A. P. D. A. H. (2018). Modern Trends for Teaching English Language that Meet the Learners' Needs. Journal of Surra Man Raa, 14(52).
67. Nacak, A., Bağlama, B., & Demir, B. (2020, March 13). Teacher candidate views on the use of YouTube for educational purposes. Online Journal of Communication and Media Technologies. Retrieved September 16, 2022, from https://www.ojcmt.net/article/teacher-candidate-views-on-the-use-of-youtube-for-educational-purposes-7827
68. Nguyen Thi, M. N., & Le Thi, T. M. (2012, March 1). Teaching Conversational Strategies through Video Clips. Google Scholar. Retrieved September 16, 2022, from https://scholar.google.com/
69. Nguyen, V. M. (2021). English Language-Learning Environments in COVID-19 era: EFL contexts, English-language environments, technology-based approach, English language learning. AsiaCALL Online Journal, 12(3), 39-46.
70. Nicolas, S. (2019). Computer Aided Instructional Materials in Teaching Cookery in Grade 10. Retrieved September 5, 2022, from https://www.researchgate.net/publication/339099737
71. Nur Aziz, I. & Dewi, Y. (2020). The Use of PowerPoint as Media of Language Teaching on Students' Speaking Skill. Humanities & Social Sciences Reviews. 8. 344-358. 10.18510/hssr.2020.8145.
72. Obagah,, R. R., & Brisibe, W. G. (2017, November). The Effectiveness of Instructional Videos in Enhancing Learning Experience of Architecture Students in Design and

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

Drawing Courses: A Case Study of Rivers State University. Google scholar. Retrieved September 16, 2022, from https://scholar.google.com/

73. Olalekan, A., Oludipe, O. (2016). Effects of Computer Simulation Instructional Strategy on Biology Students' Academic Achievement in DNA Replication and Transcription. Retrieved September 15, 2022, from https://www.researchgate.net/profile/Abass-Olalekan/publication/294826690
74. Onivehu, A. O., & Ohawuiro, O. E. (2018). Effect of PowerPoint Presentation on Students' Cognitive Achievement in Geography. Romanian Review of Geographical Education. Retrieved September 5, 2022, from https://eric.ed.gov/?id=EJ1207793
75. Park, Y., & Jung, E. (2015, November 30). Exploring the Use of Video-Clips for Motivation Building in a Secondary School EFL Setting. English Language Teaching. Retrieved September 16, 2022, from https://eric.ed.gov/?id=EJ1113509
76. Penciner, R. (2015, March 4). Does PowerPoint Enhance Learning? Canadian Journal of Emergency Medicine. Cambridge Core. Retrieved September 16, 2022, from https://www.cambridge.org/core/journals/canadian-journal-of-emergency-medicine/article/does-powerpoint-enhance-learning/A28377441F70A04C6076E38105A0BD68
77. Petimani, M., & Adake, P. (2018). Blackboard versus Powerpoint Presentation: Students Opinion in Medical Education. International Journal of Educational and Psychological Researches. Retrieved September 5, 2022, from https://www.academia.edu/en/36585996/Blackboard_versus_PowerPoint_presentation_Students_opinion_in_medical_education
78. Pham, H. T., & Nguyen, H. B. (2018). Teachers' Perceptions about PowerPoint Use as an ICT Tool for Teaching Vocabulary in Vietnam. European Journal of Foreign Language Teaching. Retrieved September 16, 2022, from https://oapub.org/edu/index.php/ejfl/article/view/2012
79. Pham, H. T., & Nguyen, H. B. (2018). Teachers' Perceptions about PowerPoint Use as an ICT Tool for Teaching Vocabulary in Vietnam. European Journal of Foreign Language Teaching. Retrieved September 10, 2022, from https://oapub.org/edu/index.php/ejfl/article/view/2012
80. Pros, R. C., Tarrida, A. C., Martin, M. Del M. B., & Amores, M. Del C. C. (2013). Effects of the PowerPoint Methodology on Content Learning. Intangible Capital. Retrieved September 5, 2022, from https://www.intangiblecapital.org/index.php/ic/article/view/370/312
81. Pujasari, R. S., & Ruslan, R. (2021). Utilizing Canvas in Technology Enhanced Language Learning Classroom: A Case Study. The Journal of English Literacy Education: The Teaching and Learning of English as a Foreign Language, 8(1), 42-54.
82. Purwanti, N. K. R., Suwastini, N. K. A., Adnyani, N. L. P. S., & Kultsum, U. (2022). Youtube Videos for Improving Speaking Skills: The Benefits and Challenges According to Recent Research in EFL Context. Jurnal Pendidikan Teknologi dan Kejuruan, 19(1), 66-75.
83. Rista, M. D. (2021). The Effect of Using Video in Teaching English toward Students' Achievement during Covid-19 at the Third Grade of Man Pinrang. Repository. IAIN PAREPARE. Retrieved September 5, 2022, from http://repository.iainpare.ac.id/3500/

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

84. Rodinadze, S., & Zarbazoia, K. (2014) The Advantages of Information Technology in Teaching English Language. Academia.edu. Retrieved September 16, 2022, from https://www.academia.edu/2464880/The_Advantages_of_Information_Technology_in_Teaching_English_Language
85. Romano, B., Samudio, R., Paulino, M. R., Palacios, D., Toca, M. A., & Bernales Jr., G. (2020). Assessment on Level of Effectiveness of Using Audio-Visuals in Teaching Science. Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research, 2(1). Retrieved from https://ojs.aaresearchindex.com/index.php/aasgbcpjmra/article/view/1679
86. Ruhul, A., Azim, M., Kalam, A., & Salam, A. (2018). The Benefit of Using Multimedia Projector in English Language Teaching Classroom. Research Gate. Retrieved September 5, 2022, from https://www.researchgate.net/publication/327282052_The_Benefit_of_Using_Multimedia_Projector_in_English_Language_Teaching_Classroom
87. Sale, M. (2016). Instructional Materials. Retrieved September 5, 2022, from https://www.researchgate.net/publication/345897715
88. Sever, S., Oguz-Unver, A., & Yurumezoglu, K. (2013). The Effective Presentation of Inquiry-Based Classroom Experiments Using Teaching Strategies That Employ Video and Demonstration Methods. Australasian Journal of Educational Technology. Retrieved September 16, 2022, from https://ajet.org.au/index.php/AJET/article/view/229
89. Shamsideen, S. A. (2016). Impact of Audio-Visual Materials in the Dissemination of Knowledge for Facilitators in Some Selected Literacy Centres in Oshodi/Isolo Local Government Area. ERIC. Retrieved September 16, 2022, from https://files.eric.ed.gov/fulltext/EJ1216165.pdf
90. Shigli, K., Agrawal, N., Nair, C., Sajjan, S., Kakodkar, P., & Hebbal, M. (2016). Use of PowerPoint Presentation as a Teaching Tool for Undergraduate Students in the Subject of Gerodontology. Journal of Indian Prosthodontic Society. Retrieved September 5, 2022, from https://pubmed.ncbi.nlm.nih.gov/27141170/
91. Sola, A. B., (2012). The Influence of Using Audio-Visual Aids in Teaching English Vocabulary a Case Study: Third Year Pupils at Daas Mohamed Middle School (Tolga, Biskra). Retrieved September 16, 2022, from http://archives.univ-biskra.dz/bitstream/123456789/4631/1/m%C3%A9moire.PDF
92. Solano, L., Cabrera-Solano, P., Ulehlova, E., & Espinoza-Celi, V. (2020, July). Using Efl Youtube Videos as Supplementary Resource for Teaching Vocabulary: A Case Study in Secondary Education. In Proceedings of the 5th International Conference on Information and Education Innovations (pp. 40-45).
93. Solomon, K. C. (2017). Teachers and 1:1 Technology in Classroom Activities: A Quantitative Study Comparing Perceptions and Stage of Adoption. ProQuest. https://www.proquest.com/openview/9ba31727a6a9da90dc3f7a17c0559fd5/1?pq-origsite=gscholar&cbl=18750
94. Sousa, V. D., Driessnack, M., & Mendes, I. A. C. (2007). An Overview of Research Designs Relevant to Nursing: Part 1: Quantitative Research Designs. Revista Latino-Americana de Enfermagem, 15(3), 502–507. https://doi.org/10.1590/s0104-11692007000300022

Journal of Multidisciplinary Cases
ISSN: 2799-0990
Vol : 02 , No. 05 , Aug- Sept 2022
http://journal.hmjournals.com/index.php/JMC
DOI: https://doi.org/10.55529/jmc.25.9.30

95. Srinivasacharlu, A. (2020, February 29). Using YouTube in Colleges of Education. Shanlax International Journal of Education. Retrieved September 16, 2022, from https://eric.ed.gov/?id=EJ1256049
96. Strasser, N. (2014, April 23). Using Prize in Higher Education. Journal of College Teaching & Learning (TLC). Retrieved September 16, 2022, from https://www.clutejournals.com/index.php/TLC/article/view/8547.
97. Suleman, Q., Hussain, I., Din, D. N. U., Iqbal, K. (2017). Effects of Computer-Assisted Instruction (CAI) On Students' Academic Achievement in Physics at Secondary Level. Retrieved September 5, 2022, from https://iiste.org/Journals/index.php/CEIS/article/view/38616
98. Sunder, P. (2018). The Effectiveness of Audio-Visual Aids in Teaching Learning Process. Google Scholar. Retrieved September 16, 2022, from https://ijcrt.org/papers/IJCRT1802641.pdf
99. Susanty, L., Hartati, Z., Sholihin, R., Syahid, A., & Liriwati, F. Y. (2021). Why English Teaching Truth on Digital Trends as an Effort for Effective Learning and Evaluation: Opportunities and Challenges: Analysis of Teaching English. Linguistics and Culture Review, 5(S1), 303-316.
100. Sykes, R. (2012). The Impact on Student Learning Outcomes of Video When Used as a Primary Teaching Tool in the Internet Hybrid Classroom. Retrieved September 5, 2022, from https://dc.etsu.edu/cgi/viewcontent.cgi?article=2710&context=etd
101. Tareef, A. (2014). The Effects of Computer-Assisted Learning on the Achievement and Problem-Solving Skills of the Educational Statistics Students. European Scientific Journal, ESJ. Retrieved September 5, 2022, from https://eujournal.org/index.php/esj/article/view/4400
102. Thiang'o, J., (2013). Effect of Computer Simulation on Secondary School Students. Retrieved September 5, 2022, from https://www.researchgate.net/publication/357648076
103. Turney, S. (2022, August 17). Systematic Review: Definition, Example & Guide. Scribbr. Retrieved September 15, 2022, from https://www.scribbr.com/methodology/systematic-review/
104. Wanchanga, S. W., & Keraro, F. (2020). Relative Effects of Experiential Computer Assisted Instruction on Secondary School Students Self-Concept in Biology in Bomet County, Kenya. Retrieved September 5, 2022, from https://www.researchgate.net/profile/Fred-Keraro/publication/349711072
105. Warren, R. D. (2012). The Effect of Adaptive Confidence Strategies in Computer-Assisted Instruction on Learning and Learner Confidence. Retrieved September 5, 2022, from https://eric.ed.gov/?q=self-learning&pg=1709&id=ED547046
106. Wijaya, R. A. (2017). The Use of Audio-Visual Aids in Teaching English at Satya Wacana Senior High School. Google Scholar. Retrieved September 16, 2022, from https://repository.uksw.edu/bitstream/123456789/14405/2/T1_112011057_Full%20text.pdf
107. Zhang, R., & Zou, D. (2022). Types, Purposes, and Effectiveness of State-of-the-Art Technologies for Second and Foreign Language Learning. Computer Assisted Language Learning, 35(4), 696-742.