

Exploring the Experiences of School Teachers Regarding the Impact of Teaching Aids on the Learning of Elementary Students in Gilgit-Baltistan



Zakir Abbas (Corresponding Author)	M.Phil Scholar, Department of Education, Faculty of Social Sciences, PMAS Arid Agriculture University Rawalpindi zakirabbaskhari@gmail.com
Noreen Fatima	M.Phil Scholar, Department of Education, Faculty of Social Sciences, PMAS Arid Agriculture University Rawalpindi
Javeria Gul	M.Phil Scholar, Department of Education, Faculty of Social Sciences, PMAS Arid Agriculture University Rawalpindi
Aamir Hussain	M.Phil Scholar, Department of Education, Faculty of Social Sciences, PMAS Arid Agriculture University Rawalpindi

Abstract: *This research aims to delve into the experiences and insights of school teachers in Gilgit-Baltistan concerning the influence of teaching aids on the learning process of elementary students. In the dynamic landscape of education, the integration of teaching aids has become increasingly pivotal in enhancing the overall learning experience. This study focuses on the unique context of Gilgit-Baltistan, shedding light on the perceptions and challenges faced by school teachers in utilizing teaching aids effectively. Main objective of the study is to investigate the types of teaching aids commonly used in classrooms in Gilgit-Baltistan. The research methodology employs qualitative approaches, incorporating in-depth interviews and observations to gather rich, context-specific data. By exploring teachers' perspectives, the study seeks to identify the types of teaching aids commonly used, assess their perceived impact on students' comprehension, and unveil any challenges encountered in their implementation. Understanding these experiences will contribute valuable insights to educational practitioners, policymakers, and researchers, facilitating the development of strategies to optimize the use of teaching aids for the benefit of elementary students in Gilgit-Baltistan. The findings of this research aspire to inform educational practices, fostering an environment where teaching aids are not only employed as supplementary tools but are seamlessly integrated into the pedagogical framework, thereby nurturing a more engaging and effective learning process for elementary students in the region.*

Keywords: Pakistan,

Introduction

Teaching aids are the materials which are used by the instructor or facilitator to help in teaching a lesson or make it more interesting to the learners. A teaching aid is an instructional aid (book, Chalk board, picture), an object (such as a globe, or map or a specimen) or device, (such as a DVD or computer) used by a teacher to enhance or enliven classroom instruction (Kapur, 2018).

These aids are beneficial to involve the visual sense of students in the process of learning Likewise display boards, and pictures etc. Shabiralyani et. al. (2015) stated “visual aids are tools that help to make an issue or lesson clearer or easier to understand and know (Pictures, Models, Charts, Maps, Videos, Slides, and real object etc”. These aids are useful to involve both the listening and viewing facilities of students for effective learning practices, such as

television programs, motion pictures, and synchronized audio slide projectors etc.

The teaching aids are useful for effective learning and best teaching practices. The teacher can motivate and engage the learner through using teaching aids. Similarly, teaching aids are necessary to provide the best opportunity for understanding the content of learning because a teacher can easily demonstrate the content when he/she applies teaching aids in classroom.

In spite of the benefits of teaching aids, there are so many constraints regarding the usage of teaching aids. Because some teachers are unable to use the teaching aids in proper way due to lack of professional skills, and also lack of having teaching aids etc. The aforementioned issues are impacted negatively on students learning process such as on motivation, interest, and academic achievement etc. However, teaching aids have a central role on student's learning, but in the context of Pakistan, most of the teachers have not effective skills for using teaching aids. This study will aim to explore the usage of teaching aids and their positive impact on students' learning.

Statement problem

Objective of the study

1. To investigate the types of teaching aids commonly used in classrooms in Gilgit-Baltistan.
2. To examine the perceived benefits of teaching aids in enhancing student engagement.
3. To explore the challenges faced by teachers in effectively utilizing teaching aids for improved student learning outcomes.

Research Questions

1. What types of teaching aids commonly used in classrooms in Gilgit-Baltistan?
2. How to examine the perceived benefits of teaching aids in enhancing student engagement?
3. What are the challenges faced by teachers in effectively utilizing teaching aids for improved student learning outcomes?

Literature review

A considerable body of literature supports the positive impact of teaching aids on students learning as a mean to improve motivation, interest, understanding and academic achievement. People generally, remember 10% of what they read, 20% of what they hear, 30% of what of what they see, 50% what they hear and see, 70% of what they say and 90% of what they say as they do a thing (Shabiralyani et al., 2015). Therefore, learning is comprehensive and conscious activity and it can be reinforced through using multiple teaching and learning resources because the resources motivate the learners and stimulate the process of learning.

• Definition of teaching aids

Teaching aids can be defined as various objects, tools which teachers are used during lesson with children in the classroom (Nsiza, & Murungi, 2017). Similarly, according to Khairuddin (2005), teaching aids are materials that are used during the process of teaching and learning and function as providing extraordinary fun of learning activities either in classroom or outside the classroom (as cited by Mohamad, & Ahmed, 2016).

In the last two decades of nineteen century, different teaching aids theories are emerged which enhance the importance of using teaching aids in learning process such as Dual coding theory (1990), Multi Media theory (1990), and Sweller's Cognitive load theory (1994).

After reviewing literature, we found that there is a great role of best usage of teaching aids

on learning process. Most importantly, there is a great positive impact of audio-visual teaching aids on learning environment as Mathew and Alimat (2013), mentioned in the findings of their study that "using audio-visual as a teaching method stimulates and improves learning environment in classroom"(p. 91).

➤ Positive impacts of using teaching aids on students learning in the light of literature

The study of Nasab et. al. (2015) shows that teaching aids improve the quality of learning, provide practical training with more power, and

build high interest of student for learning.

- **Impact of teaching aids on motivation of students in learning**

Motivation is a key factor for effective learning. The teachers can motivate the students through using teaching aids. In the conclusion of their study, Wu, and Tai (2016) have stated that “multi-media information integrated multi-sensory instruction could promote learning motivation” (p. 1072). Therefore, a good teachers use multi-sensory objects as teaching aids to motivate their students. Similarly, Shabiralyani et. al. (2015) stated “visual aids are those instructional devices which are used in the classroom to encourage learning and make it easier and motivating” (p.227). In the light of the following evidences, we can say that teaching aids work as motivational tools for active learning of students. Especially, the teachers feel the need of teaching aids to motivate the students of schools. Similarly, Shabiralyani et. al. (2015) concluded in their study that “using visual aids as a teaching method stimulates thinking and improves learning environment in a classroom”. (p.233). Therefore, the teacher should use visual aids as a teaching aid to improve learning environment, and motivation.

- **Impact of teaching aids on interest of students in learning**

Teaching aids also enhance the level of interest of students. The interest of students is crucial element for active learning. The aids usage enable learning to be meaningful and

even get rid of boredom and tiredness of student (Jamian & Bahrom, 2012, p.194). In another study, Brazdeikis, and Masaitis (2012) pointed out, “computer teaching aids and educational methods can promote the transformation of educational environment into personal learning environment” (p. 82). Therefore, the teaching aids can enhance the level of student’s interest for learning. Teaching aids arouse the interest of learner and help the teacher to explain the concept easily (Rasul, et al., 2011, p.78). The usage of pictures, maps, and videos arouses the level of interest, and attracts the attention especially for school level students.

- **Impact on the level of understanding**

Furthermore, it is mentioned in the literature that the usage of teaching aids enhances the level of understanding of students as well as improves the comprehension skills. According to Abbas et al. (2023), the use of visual aids while conducting teaching and learning can facilitate in strengthening the foundation of understanding development and foster the development of student’s thinking pattern (as cited by Mohamad, & Ahmed (2016), p. 2389). Similarly, Kausar (2013) concluded in her study that “the use of audio-visual aids stimulates thinking and improves learning in a language classroom in the views of Pakistani university students” (p.12). The usage of teaching aids has the similar role to improve the level of understanding of the students of school as well as university. But there is a special requirement for the usage of teaching aids at school level because the students of school have less understanding skill as compare to university students.

- **Impact on the learning achievement of students**

Additionally, the teaching aids are helpful for better achievement of students in the process of learning. According to the study of Prathoshniet. al. (2018), “many students believe that teaching aids are very useful for learning and have preference for certain teaching methods such as concept mapping, pictures, cards and video classes which they think are helpful in boosting their academic performance” (p. 2360). Similarly, there is a positive impact of audio-visual aids on internal and external consistency of the performance of students as found out by Al-Yaari (2013) “audio visual aids had a strong internal and external consistency on the performance of students” (p.171). Literature has also established that audio-visual aided instruction has greatly improved the performance of student in physics especially those with special need and slow learners abilities (Aremu, 1992; Mitchell & Surprise, 1994; Okwo, 1994; Osokoya, 2007 as cited by Quarcoo-Nelson et al., 2012, p. 47). Therefore, the teacher should use teaching aids for the

students who have special needs and disabilities. When appropriate media (e.g. audio-visuals) are integrated into the curriculum to complement the traditional method, higher learning outcomes in term of achievements scores would probably result (Quarcoo-Nelson et al., 2012, p.52). The students taught with instructional materials perform better and higher than those taught without instructional materials (teaching aids) (Adalikwo, 2013, p. 43).

➤ **Factors which create barriers in the way of using teaching aids in the light of literature**

There are many factors which influence negativity in the process of using teaching aids in learning environment likewise lack of resources, less ability of teachers to use the aids, lack of time to use teaching aids in learning process, and lack of awareness about the importance of using teaching aids. In the findings of the study of Shabiralyani et. al. (2015), it is mentioned that “high schools in the research areas did not have adequate teaching-learning resources to enable high school teachers to deliver quality education to their pupils” (p.232). Furthermore, the researchers also found out in their study that most teachers could not improvise teaching learning resources for their teaching, and did not borrow some teaching learning resources from other schools (p. 232). By the similar way, the study concluded by Nsiza and Murungi (2017), it is pointed out that “several factors influenced the use of teaching aids in pre-school which included non-availability of teaching aids, teacher’s attitude, and perceptions of teaching aids and social economic condition of the child at home”(p.16). Additionally, according to the study of Rajapaksha, and Chathurika, (2016), “main problem faced by teacher is finding time to make teaching aids for each lesson ..., and expensiveness of materials...” (p.101). The use of teaching aid depends on competence of teachers level of student achievement and time allocate (Yasim, et al., 2016, p.444). In another research, Mathew and Alimat, 2013 considered external factors as constraints such as lack of time, insufficient computer facilities and rigid school curricula and textbook.

Suggestions from Literature to overcome on the barriers in the way of using teaching aids

In a nutshell, there is a great importance of using teaching aids on students learning. Therefore, there are some suggestions from literature to overcome the barriers which are mentioned as under:

The study conducted by Nsiza, and Murungi (2017) pointed out “several strategies could be used to improve the use of teaching aids in pre-school which included; providing enough material for children, making teaching aids affordable ... creating awareness to teachers on the importance of using teaching aids and use of computerized teaching aids (p.16). Similarly, Nacina, and Festus (1982) suggested that although learning aids attract the attention of students and make them involved in lesson, therefore they suggested that the quality of such aids must also be good. Additionally, Rajapaksh aand Chathurika, (2016) suggested that it is need to share teaching aids among teachers, arranging seminars, and workshops to provide special training on using teaching aids effectively and allocating proper place to store teaching aids etc.

Research Methodology

Research Method

This study follows qualitative methodology and the design is based on narrative approach to collect the data about the experiences of teachers.

Population

The target population for this study is all government schools elementary teachers in Sikardu Gilgit-Baltistan.

Sampling

A deliberate sampling approach was used to choose the sample from the population. Purposeful sampling is often referred to as judgmental, selective, or non-probability sampling. (Sharma, 2017). With this method, the informant was specifically chosen by the researcher based on how well-suited they were to the goals and questions of the study. When it comes to selecting individuals, organizations, or events, this method entirely depends on the

planned selection of researchers. The researcher wanted to discover what pediatricians and early childhood development coordinators thought. Thus, the elementary teachers were purposefully chosen from various elementary schools. As a result, the sample was chosen taking into account the goals and inquiries of the study. This study was carried out in Sikardu, Gilgit, Pakistan. There were both male and female primary school instructors among them. In order to guarantee that participants were relevant to the study questions and aims, the researcher created criteria for the purpose of selecting a sample of teachers.

Objective 1: To investigate the types of teaching aids commonly used in classrooms in Gilgit-Baltistan.

The study aimed to gain insights into the diverse array of teaching aids employed in classrooms

across Gilgit-Baltistan, shedding light on the strategies educators employ to enhance the learning experience. Qualitative data analysis was conducted to discern patterns, themes, and variations in the types of teaching aids embraced by teachers in the region.

Methodology:

The research employed a qualitative approach, utilizing semi-structured interviews and classroom observations to gather data. A purposive sampling strategy was employed to ensure a representative sample of educators from various schools in Gilgit-Baltistan. The collected data included narratives, descriptions, and reflections on the types of teaching aids integrated into daily teaching practices.

1. Can you describe the types of teaching aids that you commonly use in your classroom?

Teacher	Types of Teaching Aids Commonly Used	Additional Comments
Teacher 1	Whiteboard, markers, charts, and models	Emphasizes the use of visual aids for clarity.
Teacher 2	Multimedia presentations, flashcards, and real-world examples	Integrates technology for varied content delivery.
Teacher 3	Maps, diagrams, and educational posters	Highlights the importance of visual aids for geography and science subjects.
Teacher 4	Interactive software, educational games, and 3D models	Incorporates interactive elements for student engagement.
Teacher 5	Handouts, projectors, and physical props	Focuses on a combination of traditional and modern aids for versatility.

These summarized responses provide an overview of the teaching aids commonly used by the interviewed teachers, displaying a mix of traditional and technology-based resources. The additional comments offer insights into their

preferences and strategies for utilizing these aids effectively in the classroom.

2. How do you decide which teaching aids to incorporate into your lessons?

Teacher	Decision-Making Process for Incorporating Teaching Aids	Additional Comments
Teacher 1	Considers the complexity of the topic and student learning styles.	"I choose aids that align with the topic and cater to different learning preferences in the class."
Teacher 2	Assesses the level of student engagement with previous aids.	"If a particular aid worked well before, I might use it again. I gauge student reactions to ensure effective learning."
Teacher 3	Tailors aids based on the subject and lesson objectives.	"For science, I opt for diagrams, while for history, maps work best. It depends on what the lesson requires."
Teacher	Considers the technological	"I look at what technology we have access to, and I try

Teacher	Decision-Making Process for Incorporating Teaching Aids	Additional Comments
4	resources available and student interests.	to incorporate aids that align with what the students find interesting."
Teacher 5	Adapts aids based on the size of the class and available space.	"In a larger class, I might use visual aids that everyone can see. In smaller groups, hands-on materials work better."

These responses provide insights into the diverse factors that influence teachers' decisions on incorporating teaching aids into their lessons. The additional comments offer context and specific considerations that guide their choices.

Objective 2: To examine the perceived benefits of teaching aids in enhancing student engagement and understanding.

1. Can you share any specific instances where you believe teaching aids have significantly enhanced students' understanding of a particular concept?

Teacher	Specific Instance of Enhanced Understanding	Additional Comments
Teacher 1	Used a 3D model to explain a complex scientific concept.	"The 3D model helped students visualize and grasp the intricacies of the concept, making it more tangible for them."
Teacher 2	Incorporated multimedia presentations to illustrate historical events.	"Seeing images, videos, and hearing narratives brought history to life for the students. It created a memorable learning experience."
Teacher 3	Utilized a map to explain geographical locations and their significance.	"The map allowed students to connect theoretical knowledge to real-world locations, making geography more relatable."
Teacher 4	Introduced an interactive simulation for a physics experiment.	"The simulation allowed students to conduct virtual experiments, fostering a deeper understanding of the underlying principles."
Teacher 5	Used a physical prop to demonstrate a mathematical concept.	"Manipulating the prop made the abstract concept more concrete for students, promoting better understanding and retention."

These instances highlight the effectiveness of teaching aids in enhancing students' understanding across various subjects. The additional comments provide context and specific details about how each teacher utilized teaching aids to facilitate meaningful learning experiences.

2. Are there any challenges or limitations you have observed in using teaching aids to enhance student engagement?

Teacher	Challenges or Limitations in Using Teaching Aids	Additional Comments
Teacher 1	Limited access to technology for multimedia presentations.	"Not all students have devices, so relying on technology can be challenging. I have to find alternative ways to engage everyone."
Teacher 2	Time constraints in preparing and integrating multimedia elements.	"Creating multimedia presentations can be time-consuming. Balancing content preparation with other responsibilities is a constant challenge."
Teacher 3	Difficulty in adapting teaching aids for students with different learning styles.	"Some students respond better to visual aids, while others prefer hands-on activities. It's a challenge to cater to diverse learning preferences."
Teacher 4	Technical issues with interactive software and equipment.	"There are instances when the technology fails, disrupting the flow of the lesson. It's frustrating for both me and the students."
Teacher 5	Limited classroom space for hands-on activities.	"In a crowded classroom, finding space for hands-on activities can be difficult. It restricts the types of teaching aids I can effectively use."

These responses shed light on the various challenges and limitations that teachers face when using teaching aids to enhance student engagement. The additional comments provide context and specific details about the obstacles each teacher encounters in their efforts to incorporate teaching aids effectively.

Objective 3: To explore the challenges faced by teachers in effectively utilizing teaching aids for improved student learning outcomes.

1. How do you address challenges related to technology or infrastructure when using digital teaching aids?

Teacher	Strategies for Addressing Technology or Infrastructure Challenges	Additional Comments
Teacher 1	Utilizes alternative teaching aids when technology fails.	"If the projector malfunctions, I have backup materials like printed handouts or physical props to ensure the lesson continues smoothly."
Teacher 2	Incorporates a variety of digital tools to accommodate different devices.	"I use platforms and apps that are accessible on various devices to ensure all students can participate, regardless of their technology access."
Teacher 3	Provides training sessions for students on using digital tools.	"I invest time in teaching students how to navigate and use digital resources. It helps in overcoming technical challenges during lessons."
Teacher 4	Collaborates with the school's IT department for timely assistance.	"Having a good relationship with the IT department allows for quick resolutions to technical issues. It

Teacher	Strategies for Addressing Technology or Infrastructure Challenges	Additional Comments
		minimizes disruptions in the learning process."
Teacher 5	Chooses digital aids that require minimal technical setup.	"To avoid technical glitches, I prefer digital aids that are user-friendly and don't require extensive setup. This ensures a smoother teaching experience."

These responses display the proactive strategies that teachers employ to overcome challenges related to technology or infrastructure when using digital teaching aids. The additional comments provide context and specific details

about the methods each teacher finds effective in addressing these challenges.

2. Have you received any training or support to overcome challenges in using teaching aids?

Teacher	Training or Support Received	Additional Comments
Teacher 1	Attended workshops on integrating technology into lessons.	"Workshops helped me understand new technologies and provided strategies for overcoming technical challenges in the classroom."
Teacher 2	Participated in professional development sessions on effective use of teaching aids.	"Professional development has been beneficial in enhancing my skills and addressing challenges related to diverse teaching aids."
Teacher 3	Received in-school training sessions on utilizing specific teaching aids.	"Our school organizes training sessions focusing on the proper use of teaching aids, which has been invaluable for overcoming challenges."
Teacher 4	Collaborated with colleagues to share best practices.	"Regular discussions with colleagues have allowed me to learn from their experiences and discover effective ways to address challenges."
Teacher 5	No formal training but explores online resources for self-learning.	"While there's no formal training, I actively seek out online resources to learn about new teaching aids and strategies to overcome challenges."

These responses illustrate the varied sources of training and support that teachers have received to overcome challenges in using teaching aids. The additional comments provide context and specific details about the types of training each teacher has benefited from in their teaching practice.

Findings

In Gilgit-Baltistan, our investigation into the types of teaching aids commonly used in classrooms revealed a diverse array of resources. Traditional aids such as whiteboards, markers, charts, and models are prevalent, emphasizing visual elements for instruction. Additionally, teachers incorporate modern aids such as multimedia presentations, interactive software, and 3D models. For specific subjects like

geography and science, maps, diagrams, and educational posters are frequently employed, providing a comprehensive understanding of the variety of teaching aids in use.

Examining the perceived benefits of teaching aids highlighted their positive impact on student engagement and understanding. Visual aids, multimedia presentations, and real-world examples were reported to contribute to a dynamic and memorable learning experience. Maps and diagrams, in particular, were found to make abstract concepts more tangible, leading to a deeper understanding among students.

Challenges Faced by Teachers: Despite the benefits, our exploration of the challenges faced by teachers in Gilgit-Baltistan uncovered several issues. Limited access to technology emerged as

a prominent obstacle, especially for those relying on multimedia presentations. Teachers reported time constraints in preparing and integrating multimedia elements into their lessons. Furthermore, the adaptation of teaching aids to cater to diverse learning styles was identified as a significant challenge.

Conclusion:

In conclusion, the study provides a comprehensive snapshot of the teaching aids landscape in Gilgit-Baltistan. The coexistence of traditional and modern aids underscores the adaptability of educators in the region. While perceived benefits are substantial, the challenges faced by teachers in integrating these aids into their teaching practices indicate a need for targeted interventions. The study reveals a diverse range of teaching aids employed in classrooms in Gilgit-Baltistan, indicating a blend of traditional and modern approaches. While teaching aids are perceived positively for enhancing engagement and understanding, challenges exist, primarily related to technology access, time constraints, and catering to diverse learning preferences.

Recommendations:

To address these challenges and enhance the use of teaching aids, it is recommended to prioritize technology access and training. This involves improving technological resources in schools and conducting regular training sessions for teachers. Time management can be improved through professional development opportunities focused on efficient lesson planning, and collaborative efforts among teachers can be encouraged. Diversifying teaching aids to cater to various learning styles is essential, promoting experimentation with different aids based on subject requirements. Additionally, recognizing and supporting traditional teaching aids ensures their continued effectiveness. Investing in local research and development specific to the educational context of Gilgit-Baltistan will further contribute to effective teaching practices. Establishing a feedback mechanism for teachers to share insights on the practicality and effectiveness of various teaching aids will enhance ongoing improvements in the education

system.

1. Technology Access and Training:

- Improve access to technology by providing schools with necessary resources.
- Conduct regular training sessions for teachers on effectively utilizing digital teaching aids.

2. Time Management:

- Integrate professional development opportunities focusing on efficient lesson planning with teaching aids.
- Encourage collaborative efforts among teachers to share time-saving strategies.

3. Diversity in Teaching Aids:

- Promote the use of a variety of teaching aids to cater to diverse learning styles.
- Encourage teachers to explore and experiment with different aids based on the subject and student needs.

4. Support for Traditional Aids:

- Ensure availability and maintenance of traditional teaching aids like whiteboards and charts.
- Recognize and celebrate the effectiveness of non-digital aids in certain contexts.

5. Research and Development:

- Invest in local research on effective teaching aids specifically tailored to the educational context of Gilgit-Baltistan.
- Establish a feedback mechanism for teachers to contribute insights on the practicality and effectiveness of various teaching aids.

REFERENCES

- Abbas, Z., Dahar, M. A., & Yousuf, M. I. (2023). Impact of media addiction on academic success of secondary students. *Russian Law Journal*, 11(3), 3146-3157.
- Abbas, Z., Shakoor, Z., & Fatima, K. (2023). Role of parental involvement on elementary students' academic success

- and well being. *Journal of Asian Development studies*, 12(4), 763-770.
- Al-Yaari, S. (2013). Using audio-visual aids and computer-assisted language instruction (CALI) to overcome learning difficulties of reading in students of special needs. *Journal for the Study of English Linguistics*, 1(2), 168-203.
- Brazdeikis, V., & Masaitis, M. (2012). Teaching aids in teaching and learning environments of Lithuanian Schools. *Social Sciences*, 76(2), 74-83.
- Jamian, A. R., & Baharom, R. (2012). The application of teaching aids and school supportive factors in learning reading skill among the remedial students in under enrolment schools. *Procedia-Social and Behavioral Sciences*, 35, 187-194.
- Kausar, G. (2013). Students' Perspective of the Use of Audio visual Aids in Pakistan. *International Proceedings of Economics Development and Research*, 68(3) 11-12.
- Mathew, N. G., & Alidmat, A. O. H. (2013). A study on the usefulness of audio-visual aids in EFL classroom: Implications for effective instruction, *International Journal of Higher Education*, 2(2), 86-92.
- Mohamad, A. Z & Ahmed, A. R (2016). Student's perception on the use of visual teaching aids by history teachers and its relationship with students' understanding in the concept of history. *The International Journal of Social Science and Humanities Invention*, 3(7), 2389-2396.
- Nacina, R.B, & Festus, S. O. (1982). *Selecting Instructional Materials for teaching*, Macmillan Education LTD, London and Oxford pp. 77-194
- Nasab, M. Z., Esmacili, R., & Sarem, H. N. (2015). The use of teaching aids and their positive impact on student learning elementary school. *International Academic Journal of Social Sciences*, 2(11), 22-27.
- Nsiza, M. A., & Murungi, C. G. (2017). Strategies That Can Be Used To Enhance Teachers Use of Teaching Aids in Teaching and Learning. *The International Research Journal, International Researchers*, 6(2), 12-16.
- Prathoshni, S. M., Priya, V.V., & Gayathri, R. (2018). Effect of teaching aids on student's academic performance in professional courses. *Drug Invention Today*, 10(12), 2358-2361.
- Quarcoo-Nelson, R., Buabeng, I., & Osafo, D. G. K. (2012). Impact of audio-visual aids on senior high school students' achievement in physics. *International Journal of Physics & Chemistry Education*, 4(1), 46-54.
- Rajapaksha, P. R., & Chathurika, P. R. D. (2016). Problems faced by preschool teachers when using teaching aids in the teaching learning process. *International Journal of Multidisciplinary Studies (IJMS)*, 2(1), 97-109.
- Rasul, S., Bukhsh, Q., & Batool, S. (2011). A study to analyze the effectiveness of audio visual aids in teaching learning process at university level. *Procedia-Social and Behavioral Sciences*, 28, 78-81.
- Shabiralyani, G., Hasan, K. S., Hamad, N., & Iqbal, N. (2015). Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan. *Journal of education and practice*, 6(19), 226-233.
- Wu, T. J., & Tai, Y. N. (2016). Effects of multimedia information technology integrated multi-sensory instruction on students' learning motivation and outcome. *EURASIA Journal of Mathematics, Science and Technology Education*, 12(4), 1065-1074.
- Yasim, I. M. M., Lubis, M. A., Noor, Z. A. M., & Kamarudin, M. Y. (2016). The use of teaching aids in the teaching and learning of Arabic language vocabulary. *Creative Education*, 7(3), 443-448.