



## Development of E-Sea book based on SAS method assisted with minimum competency assessment (akm) classroom efforts to improve vocabulary of low-grade students

(Pengembangan *E-Sea Book* berbasis metode SAS berbantuan asesmen kompetensi minimum (AKM) kelas upaya peningkatan kosakata siswa kelas rendah)

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**Abstract:** The goal of reading is to locate different types of information in a written material. To encourage reading habits, teachers must create engaging reading programs. However, researchers discovered that many children had poor reading skills based on observations made in class I of SDN Trimulyo 02 Semarang, which is where Teaching Campus 5 is located. Based on the pre-test the average is 67. based on the identification of issues brought on by a lack of resources for learning support, particularly media. Research on the usage of media, namely E- Sea Books, must be done using the Synthetic Structural Analytical (SAS) technique with support from the Class Minimum Competency Assessment (AKM). The purpose of this study is to use the SAS to evaluate the viability and efficacy of this media approach with help from AKM Class. The Research and Development (R&D) approach is applied in this study. An assessment questionnaire with a Likert scale was used to gather data on media suitability, and a Class AKM test instrument was used to examine effectiveness. According to the study's findings, the average media validity test score is 85% with respectable credentials, whereas the average material validity score is 90% with excellent qualities. The average knowledge value for the large-scale test was 96, whereas the average knowledge value for the small-scale effectiveness test was 92. There was a 29-percent increase in learning outcomes. The media created for common vocabulary was deemed viable and efficient based on the data analysis. utilized in SDN Trimulyo 02 Semarang's first-grade classroom.

**Keywords**    Class AKM, SAS Method, Vocabulary

**Abstrak:** Tujuan membaca adalah untuk menemukan berbagai jenis informasi dalam bahan tertulis. Untuk mendorong kebiasaan membaca, guru harus membuat program membaca yang menarik. Namun, peneliti menemukan bahwa banyak anak memiliki keterampilan membaca yang buruk berdasarkan pengamatan yang dilakukan di kelas I SDN Trimulyo 02 Semarang, yang merupakan lokasi Kampus Mengajar 5. Berdasarkan tes awal rata-rata adalah 67. berdasarkan identifikasi masalah yang disebabkan oleh kurangnya sumber daya untuk dukungan pembelajaran, khususnya media. Penelitian tentang penggunaan media, yaitu Buku E-Sea, harus dilakukan dengan menggunakan teknik Analisis Struktural Sintetis (SAS) dengan dukungan dari Asesmen Kompetensi Minimal Kelas (AKM). Tujuan dari penelitian ini adalah untuk menggunakan SAS untuk mengevaluasi kelayakan dan kemandirian pendekatan mediaini dengan bantuan dari Kelas AKM. Pendekatan Penelitian dan Pengembangan (R&D) diterapkan dalam penelitian ini. Kuesioner penilaian dengan skala Likert digunakan untuk mengumpulkan data tentang kesesuaian media, dan instrumen tes Kelas AKM digunakan untuk menguji efektivitas. Berdasarkan hasil penelitian, rata-rata nilai uji validitas media sebesar 85% dengan kategori sangat baik, sedangkan rata-rata nilai validitas materi sebesar 90% dengan kategori sangat baik. Rata-rata nilai pengetahuan untuk uji skala besar sebesar 96, sedangkan rata-rata nilai pengetahuan untuk uji efektivitas skala kecil sebesar 92. Terjadipeningkatan hasil belajar sebesar 29 persen. Berdasarkan hasil analisis data, media yang dibuat untuk kosakata umum dinilai layak dan efisien untuk digunakan di kelas 1 SDN Trimulyo 02 Semarang.

**Kata Kunci**    AKM Kelas, Metode SAS, Kosakata

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## INTRODUCTION

The Fifth Generation Kampus Mengajar opened at the end of 2022 under the auspices of *Merdeka Belajar Kampus Merdeka* (MBKM). By including teachers as participants in the learning process, teaching campuses are an educational endeavour that is used in basic education units to give students the chance to learn outside of the classroom. Students who were chosen to take part in Teaching Campus 5 were released at the appropriate City/District Education Office following the VCAT test procedure and literacy & numeracy tests, placement school selection, debriefing, and so on. Assignments to their respective placement schools could be made for activities. At SD Negeri Trimulyo 02, Genuk, Semarang, the author was offered the chance to enroll in the program. Being next to the sea and close to Pantura Road means that the school is frequently impacted by water. Factory workers and fisherman make up the majority of the village.

When you read, you search the text for different types of information. Students are urged to increase their vocabulary through reading assignments. To put it another way, reading aids in understanding the text's substance through thought (Wardiyati, 2019; Al Azka et al., 2019). Therefore, visual symbols that describe the cues that students initially respond to must be used to assist them in responding or reacting (Febrista & Efrizon, 2021). Finding and obtaining information, understanding the material, and determining whether the information is accurate are the primary goals of reading, especially when it comes to vocabulary learning (Buchori, 2019).

In the implementation of Indonesian language learning with a focus on everyday vocabulary at SDN Trimulyo 02, teachers face various obstacles, including: (1) lack of teaching aids, (2) difficulty in obtaining materials or teaching materials in the library, (3) low student activity during learning, and (4) learning outcomes, especially subject scores, which are generally still low, especially in Class I of SDN Trimulyo 02 Genuk Semarang City. The reading learning results of the children, who remain below the school's minimal passing threshold (*KKM*) of 70 points, are what determine this. With an average of 67 points, just 11 out of 29 pupils were able to pass. The fact that pupils still struggle with reading is the catalyst.

The fact that many students still ignore reading at home and in school serves as evidence of this phenomenon. Instructors continue to use traditional teaching methods, and there is still a lack of family support and student motivation from both families and instructors. Students' low reading comprehension is a result of both poor reading accuracy and understanding (Puspitoningrum, 2015; Ratnasari & Zubaidah, 2019; Pellicer-Sánchez et al., 2021; Setyowati et al., 2012; Shimek, 2024). The lack of variety in teachers' teaching strategies and the lack of engaging media for pupils are further factors contributing to their poor comprehension of vocabulary in texts (Hidayah & Novita, 2017; Furenes et al., 2012).

Making engaging and enjoyable learning materials and instructional strategies for students is one of the things teachers may do to improve learning outcomes and the calibre of instruction. Technology-based learning media are instructional resources that educators can use. Meanwhile, the SAS method is one of the reading strategies that can be used to teach beginner readers. The Structural Analytic Synthetic (or SAS) technique is an approach to learning Indonesian that was developed as part of the curriculum (Tengberg, 2018; Taylor & Clarke, 2021; Thomas et al., 2023). According to Sani (2013), the first observation method used by the SAS for individuals is worldwide or all-inclusive. Thus, there needs to be an introduction or start of structure in the subject that is delivered to the students (Zhang & Graham, 2020). Based on a few of the aforementioned claims, it can be inferred that the Analytic Structure Synthetic Method is a reading instruction approach that can be utilized in elementary schools (Dewi et al., 2018; Chan et al., 2017; Bus et al., 2020). It consists of three main stages: the first involves presenting and displaying the

entire set; after that, the synthetic compound degrades, and reverts to its original structural form. It is anticipated that pupils' literacy comprehension levels will improve with these stages (Wulandari et al., 2019).

The traditional technique of teaching Indonesian language in Class I SDN Trimulyo 02 Genuk Semarang City is still in use; teachers do not utilize any media to teach their children letters. However, because media is viewed as less engaging, pupils are hesitant to open and play it. Additionally, teachers are only led by student and teacher texts, which frequently results in bored students and less effective learning. Learning outcomes for students are not optimized as a result. Instructors can use technology, for instance, to make their instructional materials more engaging. Utilizing the sophisticated smartphone technology of this millennium is nothing new to anyone, including students, who are accustomed to utilizing gadgets for pleasure and learning. To make teaching and learning more enjoyable and prevent boredom, we can use technology.

Contextual Teaching and Learning (CTL) paradigm is used to teach students how to comprehend ordinary terminology through seven steps: (1) constructivism; (2) inquiry; (3) questioning; (4) learning community; (5) modelling; and (6) reflection. 7. Genuine Evaluation. Following the reading of a sentence, students parse sentences into words, divide words into syllables, parse syllables into letters, combine letters into syllables, combine syllables into words, and finally combine words into whole sentences again. This is how the SAS model is used to follow up on the learning process.

Every learning technique contains implementation steps based on its own qualities, just like the SAS learning method. The SAS learning method consists of the following steps: structure, general representation, analysis of the decomposition process, and synthesis of the original structure's recombination. The two phases of the first reading stage in the SAS method are reading aloud without a book and reading aloud with a book. The steps in the SAS learning technique for beginning to read without a book are having pupils record their voice, looking at pictures while narrating stories, reading sentences in an organized manner, and examining the structure of the phrases. When a teacher does not read from a book at first, they listen to the students speak, display the picture so the students can pronounce the words, The student then reads the sentence aloud without glancing at the picture, searches for the word, and you have to check the text and follow the instructions. Convert each sentence into a syllable, then a letter from a syllable. Together, these components will form the previous structure.

Previous study has demonstrated that interactive multimedia can be used for learning. Students' learning results are impacted by multimedia, which also helps them comprehend the material (Indriyani et al., 2019; Atmazaki et al., 2021). Rachmadtullah (2018) explain that electronic books, or e-books, work similarly to traditional printed books, but they include a number of digital elements, like audio and image support. Digital book serves as a learning environment with an application that houses multimedia presentations on the book's subject matter in a multimedia database of various educational materials (Prasetyo, 2017; Masruroh & Gunansyah, 2018; Majidah et al., 2019; Kim et al., 2024).

The national assessment, which will replace the national exam in the self-study program, is one of the new policies being implemented by the Ministry of Education and Culture of the Republic of Indonesia in an attempt to enhance the country's educational system. The aim of national evaluation is to thoroughly categorize, evaluate, and analyze the effectiveness of Indonesia's primary and secondary education programs. The Minimum Competency Assessment, Personality Survey, and Learning Environment Survey are the three instruments used in the national assessment. Students who wish to improve their talents and use them in daily life are required to undergo a Minimum Competency Assessment, which evaluates their fundamental knowledge and skills. As stated by Priyanto & Agustinalia (2021), the goal of assessment in IMR is to investigate and comprehend student accomplishment in relation to anticipated skills. AKM is equipped to produce insights that raise the bar for instruction and learning, which can improve student learning outcomes.

This background informs the researcher's desire to develop media in Indonesian language subjects for Class I daily vocabulary material in order to address these issues in a way that meets the needs of both teachers and students. The study, "Development of E-Sea Book Based on SAS Method Assisted with Minimum Competency Assessment (*AKM*) Classroom Efforts to Improve Vocabulary of Low Grade Students," aims to enhance students' comprehension of vocabulary material that is frequently used on a daily basis.

The creation of learning materials, namely an E-Sea Book based on the SAS technique with evaluation questions using Class *AKM*, which has never been done previously, is the innovative aspect of this study. According to the researcher's knowledge, the originality of this research lies in the development of everyday vocabulary media using the SAS method, which has never been done before. This media development includes terminology related to various objects, especially in Indonesian language subjects.

The purpose of this research is to test the feasibility and effectiveness of the use of E-Sea Book media based on the SAS method assisted by Class *AKM*. The feasibility of this media is very influential on the level of media effectiveness because it becomes a benchmark regarding whether or not this media is suitable for production and use by students in learning activities. The effectiveness of media use is also important to find out how effective the media used is to improve the results of student understanding that is being studied.

The use of E-Book media, for example, has been shown to increase student learning outcomes. The average value of the experimental class treated with E-Book media is 88.17, while the average value of the control class that does not use E-Book is 74.00. This research is based on prior relevant studies. Then, with an average small-scale trial result of 81.66% and a large-scale trial of 86.21%, [Fitria research \(2021\)](#) demonstrated an increase in student learning outcomes following the use of Book Creator medium.

Then, in grade 2 of SDN 3 Labuhan Dalam, Bandar Lampung, [Purnama's \(2019\)](#) study with the Structural Analytical Synthetic (SAS) technique was able to increase student learning outcomes. These findings support the increase. In cycle I, the average classical learning completeness was 48.14%; in cycle II, it was 66.66%; and in cycle III, it was 81.48%. Additionally, the study by [Silfiah et al., \(2021\)](#) shown that students' initial reading ability rose when the Structural Analytic Synthetic approach was used, with significant levels of  $0.947 < 0.05$ . This indicates that there is a positive correlation between the SAS approach and pupils' increased reading proficiency at the beginning reading level.

This research differs from earlier research in that it uses the Structural Analytic Synthetic (SAS) technique to create E-Sea Book media in Indonesian language subjects using daily vocabulary material. Since the residences of SDN Trimulyo 02 students are situated near the sea, the media frequently employs the sea as the setting and topic. Additionally, students can utilize this material to complete assessment questions that support the *AKM*. The *CTL* approach is employed by this media learning researcher, and it works well when combined with this medium.

## METHOD

Research and Development (R&D) is the collective term for the category in which this study falls. [Sugiyono \(2022\)](#) reports that Borg and Gall define R&D as a process that is used to create specific goods and evaluate their efficacy. Specifically, there are ten parts in the R&D research process: (1) identification of possible problems; (2) data collecting; (3) product design; (4) design validation; (5) design revision; (6) product trial; (7) product revision; (8) usage trial; (9) product revision; and (10) mass production. Researchers only completed the eighth stage of their study—the utilization trial—due to financial and scheduling limitations.

The first step involves identifying the possible issue based on information gathered from interviews with SDN Trimulyo 02's principal, grade I teacher, and first-graders' learning objectives. Analyzed items include learning outcomes, student effectiveness, learning media, and learning processes. Following the interview, the researchers discovered issues in learning Indonesian.

The researcher gathers information in the second stage, known as data collection, using a questionnaire designed to assess instructor needs. This information is used to build the product that will be created. The third step involves designing an E-Sea Book learning media product using the SAS approach with help from Class *AKM*, and it is guided by the findings of the analysis of the teacher needs questionnaire. All of the pupils can download this media on their individual devices as it is created as an application.

However, the E-Sea Book's content design, which comprises the following eight indications, is the subject of the third stage; The E-Sea Book media display is attractive and colourful. (6) The background display and image placement do not obstruct the content of the material. (7) The size and type of font is in accordance with the level of the Education unit. (8) Displaying learning outcomes and learning objectives. (1) Spacing between lines of normal text arrangement. (2) Spacing between normal letters. (3) Well-described storyline. (4) Clear and consistent images.

Design validation is the fourth phase. Two experts—media experts and material experts—were used by the researchers during the validation phase. One material specialist and one learning media expert from State Universities made up the two-person validation team.

This study used a Likert scale questionnaire as its measuring tool, which assesses people's attitudes, motivations, and reactions to social events and realities on an individual or community group level. The research instrument is a measuring device used to compile the collected data. The material expert validation instrument indicated by Table 1 is the first applied research tool.

**Table 1**  
**Material Expert Validation Instrument**

No	Aspects	Number of Indicators
1	Material	10
2	Presentation	6
3	Image and Language	6

A Likert scale questionnaire is used as part of the material expert validation instrument. The material expert instrument has three features and a total of twenty-two indicators. Three factors are employed: (1) Content; (2) Mode of presentation; and (3) Visuals and language. A lecturer conducts material expert validation, using the material expert instrument to gather information or draw judgments on the calibre of the E-Sea Book's material content. A lecturer conducts the material expert validation. The material expert instrument is used to gather information or judgments regarding the calibre of the material content of the E-Sea Book.

The data will be examined and analyzed following the validation of the E-Sea Book, and the book will be altered in response to the validator's recommendations and critiques. As shown by Table 2, the following research tool is a validation tool for media experts.

**Table 2**  
**Media Expert Validation Instrument**

No	Aspects	Number of Indicators
1	Size	2
2	E-Sea Book <i>display design</i>	5
3	E-Sea Book <i>content design</i>	8

The Likert scale used in the material expert's questionnaire is also used in the validation instrument for media experts. The media expert instrument consists of three elements and fifteen indicators in total. Three factors are taken into consideration: (1) E-book size; (2) E- book display design; and (3) E-book content design. Following media experts' validation of the E-Sea Book, the researcher will make changes based on the validator's critiques and recommendations for the E-Sea Book media.

Media expert validators and material experts test the validity of the E-Sea Book media content using a feasibility questionnaire.

Feasibility can be tested with the formula:

With information, P is the percentage value of feasibility, f is the respondent's score, and n is the maximum score of the instrument. The qualitative method is a way to analyze and present research data in the form of phrases, words, or descriptions, as well as to interpret the findings and recommendations made by the study. This approach determines the evaluation level by analyzing data from surveys, observations, interviews, and other sources, averaging each respondent's ratings using the average formula. Additionally, the following conversion success rate in Table 3 might be used to explain the percentage score.

**Table 3**  
**Criteria for the results of expert assessment**

Achievement Level (%)	Numerical Value	Letter Values	Qualification	Information
86-100	4	A	Excellent	Very worthy
76-85	3	B	Good	Proper
65-75	2	C	Enough	Quite decent
40-64	1	D	Less	Less feasible
0-39	0	E	Very Less	Very unworthy

If media feasibility satisfies the eligibility requirements with a percentage ranging from 61% to 100%, it is deemed valid. The product must be revised after the design validation phase. We modified the products to meet the needs and made enhancements based on recommendations and feedback from media professionals. The item testing phase was the next, and it was completed in the exploration class. Six substitute students participated in the purposive technique used in this trial to gather data. Six replacement students were chosen from among the 29 researched subjects based on their aptitude levels—low, medium, and high. A survey on test takers' and teachers' reactions to using the E-Sea Book media was distributed during the pilot test. The product was updated once again by researchers following testing in small groups or experimental classes. Based on the teacher's questionnaire responses and the outcomes of the small group trial, adjustments were made at this point. The trial use is the next stage. After revisions and small-group testing, products are prepared for large-scale testing. 23 first-graders of SDN Trimulyo 02 made up the sizable group in this instance. Pre-test and post-test questions were distributed prior to and following the learning sessions in the trial.

## RESULTS AND DISCUSSION

The goal of developing better learning resources for Indonesian language courses was to help students acquire vocabulary that is frequently used in grade I elementary school. This was accomplished through the construction of the Classroom AKM-based E-Sea Book, which was based on the SAS Method. Eight stages make up the Borg and Gall development plan: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) small-scale trial; (7) teacher response questionnaire; and (8) large-scale trial.

The process of creating this medium starts with gathering data on the potential and issues in class I SDN Trimulyo 02 Semarang. This is accomplished by interviewing teachers and gathering documentation of learning results. It was discovered during the pre-research phase that the educational resources available in schools were still scarce. Additionally, the fact that reading is the primary form of instruction in Indonesian with little to no visual component deters students from engaging with the language, which has an impact on their learning objectives. After studying SDN Trimulyo 02's surroundings, while learning resources like projectors, LCDs, and textbooks are available, there isn't any particular learning material that helps pupils acquire terminology that they will likely encounter in their daily lives. Students in this scenario complained that the classroom was dull. The study discovered that after examining the traits of the pupils, they are particularly drawn to printed materials, like books with captivating illustrations, because it makes them feel as though they are

reading a narrative.

The phase that gathers data is the second. It is preferable to gather demand information that can be utilized to address the issues the school where the research is being performed is facing before deciding what alternative product strategy needs to be developed. The first-grade teacher at SDN Trimulyo 02 was observed and interviewed as part of the researcher's data collection process. This was done to find out why first grade students did not enjoy learning the vocabulary material they were taught on a daily basis—a lack of innovation in the learning mechanism was evident in the students' lack of interest in the process and the absence of media. The outcomes of the data gathering process will be applied toward media development compensation.

Determining the equipment required for E-Sea Book creation is the first step in the third phase, which is product design or planning. Kodular software is employed. Additionally, creating storyboards, *LKPD*, several tales, workflows for the product, and assessment materials for the e-book. These were all done using SAS methodologies. Next, create learning plans, including lesson plans and other materials, then go on to designing the E-Sea Book's appearance, beginning with the cover and ending with the book's final appearance. The process of developing the E-Sea Book starts with combining all of its screens and pages into one application. From there, it is meant to be utilized online via cellular connection.

Validating the design is the fourth step. The creation of the E-Sea Book product test assessment instrument comes next after the design of the E-Sea Book. When all the equipment is prepared, the E-Sea Book is put through its paces. First, media and material experts participate in an expert test to determine how effective it is. If the expert determines that the product is practicable, it is tested on first-grade pupils following the receipt of ideas, product modifications, and expert evaluation. The outcomes of the product validity test yielded the findings shown in Table 4.

**Table 4**  
***E-Sea Book Validity Results***

No	Trial	Validity Results	Percentage Qualification
1.	Material Test	90%	Excellent
2.	Media Test	85%	Good

The viability of utilizing E-Sea Book for vocabulary acquisition in daily life is confirmed by the outcomes of the product validity test. Expert suggestions were sought for ways to enhance and advance the development of E-Sea Book during the effectiveness test phase.

Design revision is the fifth stage. Based on the material expert's advice, the sentence structure needs to be modified for grade I students. Specifically, basic sentences with only SPO (Subject-Predicate-Object) and no connecting or elaborative sentences should be chosen, and the E-Sea Book screen should have "Back" written on it to encourage movement. Table 5 shows the presentation of the Class *AKM*-based E-Sea Book helping with the SAS approach on Indonesian language content of vocabulary material used on a daily basis in class I elementary school.

Table 5  
Results of the Revision of the E-Sea Book Display Design

No	Indicator	Picture
1	Sentence order adapted to Grade I children (Simple sentences)	<p style="text-align: center;"><i>Before</i></p>
		<p style="text-align: center;"><i>After</i></p>
2	There is a "Return" written on the <i>E-Sea Book</i> screen to facilitate movement	<p style="text-align: center;"><i>Before</i></p>
		<p style="text-align: center;"><i>After</i></p>
		<p style="text-align: center;"><i>Before</i></p>
		<p style="text-align: center;"><i>After</i></p>

The small-scale experiment is the sixth stage of the E-Sea Book development process. Following the E-Sea Book's validation, a restricted number of schools that have been identified as research sites are used to evaluate the product. At this point, the efficacy of the created E-Sea Books was assessed by an analysis of student learning results. Six of the 29 grade I pupils at SDN Trimulyo 02 participated in this small-scale trial. The average student score for the knowledge evaluation utilizing the small-scale Class *AKM* instrument was 92, and the results were achieved with data reaching completeness. The researcher observed the trial and recorded field notes regarding the product's advantages and disadvantages.

Completing the teacher response questionnaire was the seventh phase. The teacher completed the response questionnaire during this step. The purpose of this answer form is to gauge how well the E-Sea Book has been developed. The teacher's response met all of the extremely realistic criteria, with the exception of one suggestion for media improvement: the names of the characters in the E-Sea Book should be simple to read and write. The data will be processed and evaluated following receipt of the response survey and the learning outcome test results. The feedback from the teachers is used to improve the media.

The large-scale trial is this development's final stage. Large-scale testing of the E-Sea Book comes next, following its validation by professionals and educators. Researchers used twenty-three first-grade pupils (six of whom had earlier done small-scale trials) who had not before been assessed in this large-scale trial. This large-scale trial resulted in an average ability score of 96. Students' vocabulary skills increased by 29 points, as seen by the difference between the pre- and post-test



results.

To help instructors execute Indonesian language learning in Grade I Elementary School, an e-book based on the *AKM Classroom Assisted by SAS Method* has been developed. E-Sea Books can be used to teach vocabulary that is used on a daily basis to kids in an engaging and enjoyable way. Teachers can effectively distribute learning materials by using this educational medium to assist spread knowledge. Furthermore, this medium aids students in their autonomous study [Putu et al., \(2022\)](#). Teachers are also required to assess the appropriate learning materials to be used in the learning process because each student has unique features that require them to use different learning models [Ariyanto et al., \(2020\)](#). Reading and writing can be facilitated for pupils by using the media to teach them how to use pictures, audio, and read aloud. You can most effectively accomplish your learning objectives when you employ interactive media.

A major factor in drawing in and piquing pupils' interest in reading is the release of the E-Sea Book. Colours, graphics, typefaces, and the arrangement of the application area all contribute to the E-Sea Book's appeal. The impact of colour on human life is profound. For instance, colours influence people's perception, memory, and processing of information, as well as their mental health and ability to convey messages nonverbally [\(Dewi, 2022\)](#). High contrast and vibrant colours were employed to create the E-Sea Book. Contrasting colours provide distinctions in each image, prevent the perception of monotony, and generate highlights in the narrative. Cheerful colours were selected based on the preferences of primary school pupils [\(Iswandi, 2021\)](#). In order to help children comprehend the story while experiencing the contents of the E-Sea Book, vocabulary that is frequently used on a daily basis is described through two stories that include pictures. Students can better grasp the E-Book's general content due to its the illustrations in it. Students' abilities are strengthened as a result of its ability to assist them visualize the intended object and the circumstances around it. It facilitates pupils' comprehension and helps them retain the story's meaning. It conveys messages that are typically inaudible or difficult to convey with text [\(Susilawati & Pramesti, 2021\)](#).

Because E-Sea Book is so realistic, it is a valid and feasible learning tool for Indonesian language acquisition. Students' motivation to learn is also influenced by how useful the media is. Using the media application, students can carry out tasks in a manner described by [Saifudin et al., \(2020\)](#) by clicking menus, navigating buttons (Next, Back to Home, Page), entering text, and transferring objects in a convenient method. A collection of different media, including text, animation, photos, audio-video, and graphics, that have been arranged into digital formats and when used, will cause interaction is known as interactive learning media. the user and the media can communicate in both directions [Rachmadtullah et al., \(2018\)](#). Since the information offered in the media is more understandable, interactive multimedia content helps students learn.

It is possible to help pupils comprehend the tale's substance and boost their enthusiasm to read by using simple language that is appropriate for their cognitive level. This is especially true for engaging story content [\(Mujahidin, 2018\)](#). Students will also find it easier to read stories and systematically assimilate the content of E-Sea Book because it incorporates audio and uses the SAS approach for every narrative. Given that some children have poor reading abilities, this relates to the metric measuring the value of E-Sea Book medium.

Students can teach independence in their learning with the help of E-Sea Books. This is seen in the students' freedom to comprehend the E-Sea Book's contents and to develop knowledge based on their level of learning and tale comprehension. As it represents student activity, having unrestricted access to a wide range of material is highly beneficial for learning processes.

Concur with earlier research by [Ihwana \(2019\)](#), which indicates that enhancing student learning outcomes through the usage of E-Book medium is highly successful. This is consistent with the claim made by [Kurniawan et al., \(2020\)](#) that appropriate learning materials facilitate all student learning behaviours and allow for comfortable and easy sharing of the learning process. Because they have interactive elements, interactive multimedia programs might be helpful for students with unique learning styles. The findings of this study support those of [Silfiyah et al., \(2021\)](#) study, which found that using the SAS approach can help students' reading comprehension.

E-Sea Book media can help students delve deeper into learning materials, especially vocabulary that is often used daily. The implication of this research is that E-Sea Book media can be applied by teachers to support students to learn independently. Future research is expected to be able to examine more deeply and more broadly the scope of research related to the model and implementation of E-Sea Book based on Classroom AKM Assisted by the SAS Method.

## CONCLUSION

The conclusion drawn from the research and discussion above is that the E-Sea Book media, which uses the SAS technique with Class AKM's assistance, has extremely realistic usage criteria and can help grade I students at SDN Trimulyo 01 expand their vocabulary on a daily basis. The class AKM-based E-Sea Book was validated by an expert team using the SAS approach, and the results show that it is a practical and efficient way to teach the kinds of tasks that are taught in grade I elementary school. Achieved very feasible requirements for material validation and reasonable criteria for media validation. Between the two validations, the mean of 87.5% was attained and extremely practical standards were attained. The results of the post-test on a small size, which had an average score of 92, and the large scale, which had an average score of 96, were similar. Experts from universities, classroom teachers, even SDN Trimulyo 02 first-graders have validated the media's claims. This demonstrates that the study's goals were met and that using the produced media is both practical and efficient. Because e-book media incorporates gadgets in the learning process, it can lead to an increase in student learning outcomes. E-Sea Book media are programs that can be downloaded onto any device and contain stories about ordinary events that happen to pupils who live near the sea.

Researchers recommended that students use the E-Sea Book medium, which is based on the Structural Analytic Synthetic (SAS) technique, in conjunction with the Minimum Ability Assessment (AKM) class to support their daily vocabulary learning. These recommendations are based on the research that has been undertaken. To help teachers create more effective learning objectives that can be put into practice, principals should attend a lot of seminars, workshops, and training sessions. This will help instructors become more creative. The creation of E-Sea Books has the potential to inspire numerous stakeholders to enhance and expand educational materials in order to elevate the calibre of education.

## DECLARATIONS

<b>Author contribution</b>	: In this study, Kiki Setyowati was responsible for all stages of the research, including planning, data collection, analysis, and drafting the article. Dr. Panca Dewi Purwati, M.Pd., and Nugraheti Sismulyasih SB, S.Pd., M.Pd., as supervisors, provided crucial methodological direction and intellectual guidance. With their support, this research could be carried out well, and this journal article was prepared appropriately.
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