



VALIDITY OF A CREATIVE PROBLEM-SOLVING E-WORKSHEET BASED ON THE DEEP LEARNING APPROACH FOR GRADE VII JUNIOR HIGH SCHOOL STUDENTS ON LINES AND ANGLES

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Abstract

This research is motivated by the use of teaching materials at SMPN in Karawang that are not fully in accordance with the needs of students in understanding mathematical concepts in depth. This study aims to develop a valid E-Worksheet model of Creative Problem Solving through a deep learning approach on the material of lines and angles for VII SMP students. The type of research used is Research and Development (R&D) with the ADDIE development model. The stages used in this development are analysis, design, and development. The research instruments used are teacher and student interview guidelines, checklist sheets, and expert validation questionnaires. Data analysis techniques are carried out by analyzing qualitative and quantitative data. The analysis stage in this study is explained in the introduction. At the design stage, the results of the needs analysis are included in the E-Worksheet design based on the results of the checklist sheet and have been self-evaluated three times. Based on the assessment of material validity, it is categorized as very valid with an average of 97,32% and media validity is categorized as very valid with an average of 95,83%. The data show that the E-Worksheet Creative Problem Solving through a deep learning approach on the material of lines and angles for VII junior high school students is valid and suitable for use by teachers and students in the learning process.

Keywords: *Creative Problem Solving; Deep Learning; E-Worksheet; Lines and Angles*

Abstrak

Penelitian ini dilatarbelakangi oleh penggunaan bahan ajar di salah satu SMPN di Karawang yang belum sepenuhnya sesuai dengan kebutuhan siswa dalam memahami konsep matematika secara mendalam. Penelitian ini bertujuan untuk mengembangkan E-WORKSHEET model *Creative Problem-Solving* yang valid melalui pendekatan deep learning pada materi garis dan sudut siswa SMP kelas VII. Jenis penelitian yang digunakan adalah *Research and Development* (R&D) dengan model pengembangan ADDIE. Tahapan yang digunakan dalam pengembangan ini adalah *analysis, design, dan development*. Instrumen penelitian yang digunakan adalah pedoman wawancara guru dan siswa, lembar *checklist*, dan angket validasi ahli. Teknik analisis data dilakukan dengan analisis data kualitatif dan kuantitatif. Tahap analisis pada penelitian ini dipaparkan pada bagian pendahuluan. Pada tahap desain, hasil analisis kebutuhan tercantum dalam rancangan E-WORKSHEET berdasarkan hasil lembar *checklist* dan telah dilakukan *self-evaluation* sebanyak tiga kali. Berdasarkan penilaian, validitas materi dikategorikan sangat valid dengan rata-rata 97,32% dan validitas media dikategorikan sangat valid dengan rata-rata 95,83%. Data tersebut menunjukkan bahwa E-WORKSHEET *Creative Problem Solving* melalui pendekatan *deep learning* pada materi garis dan sudut untuk siswa SMP kelas VII valid dan layak digunakan oleh guru dan siswa dalam proses pembelajaran.

Kata kunci: E-Lembar Kerja Siswa; Garis dan Sudut; Pembelajaran Mendalam; Pemecahan Masalah Kreatif

INTRODUCTION

Information and Communication Technology (ICT) has transformed various aspects of human

life, including the field of education. The rapid advancement of technology has encouraged educators to adopt innovative teaching strategies and develop digital learning resources that better meet students' learning needs. Technology aims to create more engaging and interactive learning experiences so that students remain motivated throughout the learning process while fostering their creative and logical thinking skills (Pamungkas et al., 2025). Furthermore, the integration of digital technology enables students to access learning materials more easily and participate actively in technology-supported learning activities. Therefore, integrating technology into education is essential for improving the quality of learning, promoting student-centred instruction, and preparing students with the competencies required in the twenty-first century (Hidayah et al., 2024).

Evidence from classroom practice indicates that the use of technology in mathematics instruction remains suboptimal. Based on interviews with a mathematics teacher and Grade VII students at a public junior high school in Karawang, the teaching of Lines and Angles had already implemented the Merdeka Curriculum through the deep learning approach. However, the instructional materials were still limited to printed textbooks, and the use of digital learning materials remained minimal. This finding is consistent with the studies of Mulyani et al. (2025) and Syarifuddin and Widayanti (2026), which reported that technology integration in instructional materials has not been fully optimized, resulting in mathematics instruction relying primarily on printed media. The teacher reported that only approximately 25% of the students were able to solve mathematical problems using their own strategies, while most students still depended on solution procedures demonstrated by the teacher. Furthermore, the students expressed interest in digital instructional materials because they believed such materials would help them understand the topic of lines and angles more effectively.

In response to these issues, this study seeks to develop more engaging instructional materials that are aligned with the demands of the current digital era by designing an Electronic Student Worksheet (E-Worksheet). As a technology-based learning resource, E-Worksheets have the potential to attract students' attention, increase their learning motivation, and encourage greater engagement in completing learning activities (Lestari & Dafit, 2022). In addition, the interactive features integrated into E-Worksheets can create a more meaningful and student-centred learning experience. The development of the E-Worksheet is supported by the Creative Problem Solving (CPS) model, which is considered effective in fostering students' creative thinking and problem-solving abilities. These competencies are among the essential skills emphasized in the Merdeka Curriculum to prepare students for the challenges of the twenty-first century (Sufyadi et al., 2021).

One instructional model that effectively promotes students' creative thinking is the Creative Problem Solving (CPS) model. CPS provides students with opportunities to generate multiple ideas and determine appropriate solutions for solving problems (Marbun et al., 2022). In addition to supporting students' creative thinking, the E-Worksheet should also be aligned with the instructional approach currently promoted in Indonesia, namely the deep learning approach. This approach is expected to help students develop the competencies needed to face the challenges of the modern era (Cholifatunisa et al., 2025). In mathematics learning, the deep learning approach assists students in understanding abstract mathematical concepts by connecting them to real-life contexts, thereby making the concepts more meaningful and easier to comprehend.

Several previous studies have investigated the development of instructional materials. Faizah and Reinita (2021) developed student worksheets based on the Creative Problem Solving (CPS) model; however, their study focused on thematic learning at the elementary school level and neither utilized electronic instructional materials nor integrated the deep learning approach. Meanwhile, Muafi'i and Merliza (2022) developed mathematics worksheets on the topic of Lines and Angles for Grade VII junior high school students, but their instructional materials emphasized Islamic values without

incorporating the Creative Problem Solving (CPS) model or the deep learning approach. Mista et al. (2024) developed an E-Worksheet using a different instructional model. These three studies demonstrated that both printed and electronic student worksheets can produce valid and appropriate instructional materials for classroom use. Nevertheless, they examined the development of instructional materials, instructional models, and mathematics content separately. To the best of the researchers' knowledge, no previous study has integrated electronic student worksheets (E-Worksheets), the Creative Problem Solving (CPS) model, the Grade VII topic of Lines and Angles, and the deep learning approach into a single mathematics instructional material. Therefore, this study aims to develop an electronic instructional material that integrates these three components into a comprehensive mathematics E-Worksheet.

Based on the foregoing discussion, this study aims to develop a valid Electronic Student Worksheet (E-Worksheet) based on the Creative Problem Solving (CPS) model through a deep learning approach for the topic of Lines and Angles for Grade VII junior high school students. The validity examined in this study includes both content validity and media validity, which were assessed by experts to ensure the quality and feasibility of the developed product. Through this development process, the E-Worksheet is expected to provide meaningful learning experiences, promote students' active participation, and support the development of problem-solving skills. Furthermore, the findings of this study are expected to serve as a reference for developing mathematics instructional materials that are effective, engaging, and aligned with the objectives of the Merdeka Curriculum.

METHOD

This study aims to develop innovative teaching material in the form of an Electronic Student Worksheet (E-Worksheet) based on the Creative Problem Solving (CPS) model through a deep learning approach for the topic of lines and angles. The product was developed based on the results of a needs analysis to ensure its relevance to students' learning needs and curriculum requirements. Therefore, this study employed the Research and Development (R&D) method. According to Sugiyono (2023), the R&D method is used to develop a product through a systematic process of research, design, development, and testing to determine the validity and feasibility of the developed product. The development model adopted in this study was the ADDIE model, which was selected because it provides a systematic and flexible framework for developing educational products. The ADDIE model is considered appropriate for developing teaching materials since it allows evaluation and revision at every stage of the development process (Safitri & Aziz, 2022). The model consists of five stages: Analysis, Design, Development, Evaluation, and Implementation (Anafi et al., 2021).

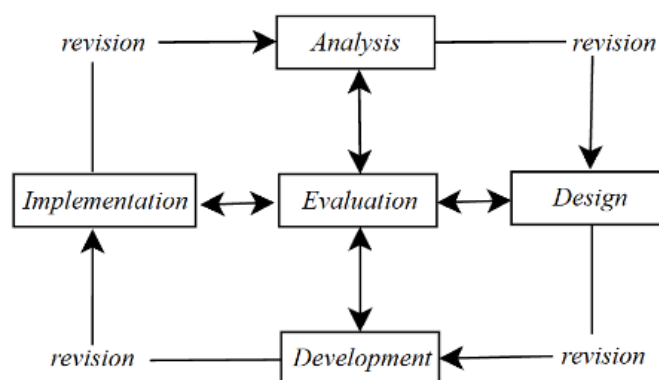


Figure 1. ADDIE Model Development Procedure

This research is limited only to the validity test at the *Development* stage due to research limitations. The E-WORKSHEET development procedure can be seen in Figure 2.

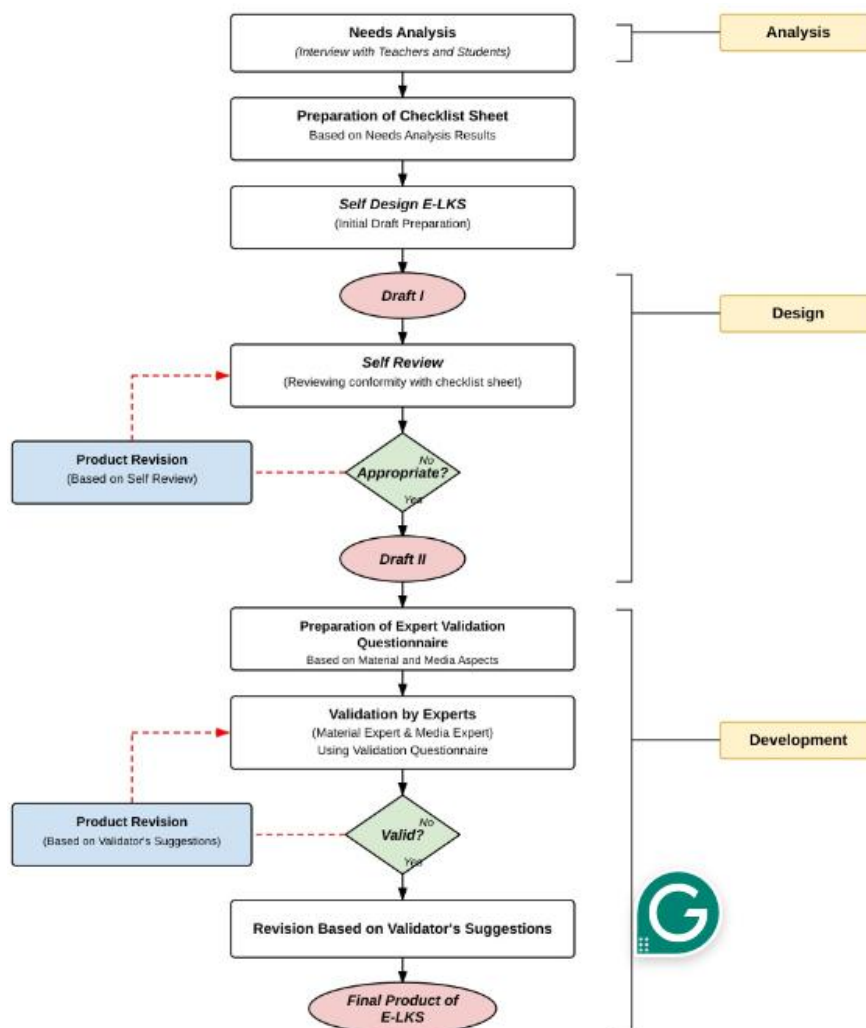


Figure 2. E-WORKSHEET Development Procedure

The study began with the analysis phase. This phase aimed to identify the factors contributing to the gap between the expected and the actual implementation of the learning process (Hidayat & Nizar, 2021). In this study, the researchers conducted a needs analysis through interviews with Grade VII students and a mathematics teacher at a public junior high school in Karawang to determine the need for developing a new instructional product. The findings from the analysis phase served as the foundation for the subsequent design phase (Siregar & Rhamayanti, 2025).

The second phase was the design phase. During this phase, technology-based instructional materials were designed based on the information obtained from the analysis phase to achieve the intended learning objectives (Abbas & Hukrandi, 2024). In this study, the researchers developed a checklist, prepared the initial draft of the Electronic Student Worksheet (E-Worksheet) (self-designed), and designed the E-Worksheet validation questionnaire for the validators. The researchers also conducted a self-evaluation after completing the initial draft to review the content, layout, and appropriateness of the E-Worksheet components before it was submitted for expert validation.

The next phase was the development phase. This phase aimed to produce and validate the

designed instructional material (Hidayat & Nizar, 2021). In this study, the researchers conducted product validation and revision. The validation process involved four validators, consisting of two subject matter experts and two instructional media experts. The validators were selected based on the following criteria: (1) possessing expertise relevant to the study; (2) having experience in developing instructional materials or conducting research in mathematics education; (3) having a thorough understanding of the current curriculum and the characteristics of junior high school students; and (4) having professional experience as educators in the fields of mathematics education or educational technology. After the validation process, revisions were made based on the validators' suggestions and recommendations to improve the quality of the developed E-Worksheet before proceeding to the next stage of the development process. During the validation process, the product underwent revisions in accordance with the feedback and recommendations provided by the validators. The validation indicators for the electronic student worksheet (E-Worksheet) are presented in Tables 1 and 2 below.

Table 1. E-WORKSHEET Subject Matter Expert Validation Questionnaire Grid

No.	Aspects	Indicator	Indicator Points
1.	Contents	Suitability of the material with learning outcomes	1
		Suitability of the material with learning objectives	2
		Material accuracy	3 and 4
		Material completeness	5
		Compatibility with the Creative Problem-Solving model	6 and 7
2.	Presentation	Presentation technique	8
		Presentation support	9
		Presentation of learning	10 and 11
3.	Language	Conformity with Indonesian Language Rules	12, 13, and 14

(modified by Putri & Raharjo, 2024)

Table 2. E-WORKSHEET Media Expert Validation Questionnaire Grid

No.	Aspects	Indicator	Indicator Points
1.	Design	Layout and readability	1, 2, 3 and 4
		Visual display	5, 6, 7, and 8
2.	Technical Quality	Performance	9, 10, 11, 12, 13, and 14

(modified by Ansar, 2021)

The instruments given to validators use a Likert scale assessment format with a range of 1 – 4. The Likert scale is a scale used to determine the attitudes, opinions, and perceptions of a person or group towards the social phenomenon being studied (Sugiyono, 2023). The score of the E-Worksheet validity assessment can be seen in Table 3 below.

Table 3. E-WORKSHEET Validation Assessment Score

Statement	Score
Excellent	4
Good	3
Not Good	2
Very Bad	1

Source: Sugiyono (2023)

After the data is obtained, the next step is to analyze the data. Validity data analysis is carried out using the following formula.

$$\text{Validity Score (\%)} = \frac{\text{Obtained Score}}{\text{Maximum Score}} \times 100\%$$

The level of validity of the developed E-Worksheet is interpreted with the criteria presented in Table 4 below.

Table 4. E-WORKSHEET Validation Category

Percentage (%)	Category
0% - 20%	Invalid
21% - 40%	Less Valid
41% - 60%	Quite Valid
61% - 80%	Valid
81% - 100%	Highly Valid

Source: (Putri & Reinita, 2023)

RESULTS AND DISCUSSION

Design Stage

In accordance with the results of the analysis stage presented in the second paragraph of the Introduction, the next stage was the design stage. This stage aimed at designing the Creative Problem-Solving E-Worksheet instructional material through a deep learning approach for the topic of lines and angles. At this stage, a checklist was used to ensure that all findings from the analysis stage were appropriately incorporated into the E-Worksheet design. The checklist was used to examine the alignment between the identified needs and the product design, ensuring that all components developed were consistent with the results of the teacher and student needs analysis. The checklist included several aspects of the design, including the presentation of lines and angles material in accordance with the learning outcomes for Phase D and the learning objectives, the use of digital instructional materials accessible through various devices, the presentation of contextual problems, clear instructions for use, an attractive visual appearance, and learning activities organized according to the stages of the Creative Problem Solving model through a deep learning approach.

The Creative Problem-Solving model encourages students to explore various ideas through divergent and convergent thinking processes (Aini et al., 2026). The stages of the Creative Problem-Solving model support the implementation of a deep learning approach because students are not only directed to find solutions but are also guided to understand problems deeply, express various ideas, evaluate solutions, and apply the solutions obtained. The implementation of a deep learning approach in the E-Worksheet aims to help students move beyond memorization and develop the ability to understand and apply information in various situations (Maryanto et al., 2025).

The next step was to develop the E-Worksheet draft, beginning with the design of a printed worksheet consisting of a cover, learning objectives, instructions for use, group identity, contextual problems, lines and angles material, and learning activities adapted to the stages of the Creative Problem-Solving model through a deep learning approach. The worksheet design was created using Canva to develop the layout, illustrations, and visual appearance. Canva was selected because it provides various templates, graphic elements, icons, and design features that facilitate teachers in developing instructional materials that are attractive, systematic, and easy for students to understand (Ramadhani et al., 2026).

After the worksheet design was completed using Canva, the file was downloaded in PDF (Portable Document Format) format and uploaded to the FlipHTML5.com website to produce a flipbook-style digital instructional material. The flipbook format was selected because it can convert PDF files into link-based digital instructional materials with an appearance like a book and can incorporate elements such as animations, images, videos, and audio, making it more engaging than a standard PDF

presentation (Harefa et al., 2025). FlipHTML5.com was selected because it enables digital instructional materials to be accessed through computers, laptops, tablets, and smartphones without requiring users to download an application beforehand. In addition, this platform supports practical learning and helps reduce paper use (Septiani et al., 2024).

Based on the results of the checklist, all aspects identified as teacher and student needs had been incorporated into the product design. Therefore, the E-Worksheet design was considered appropriate for proceeding to the next stage. The results of the checklist are presented in Table 5.

Table 5. Checklist Sheet Results

No.	Aspects	Check	Remarks
1.	Materials according to Achievement Learning in phase D.	☒	Compliant
2.	Materials fit the purpose of learning lines and angles.	☒	Compliant
3.	Materials fit the purpose of learning lines and angles.	☒	Compliant
4.	Instructions for use are presented with obviousness.	☒	Compliant
5.	Attractive visual display.	☒	Compliant
6.	Student activities are arranged based on the Creative Problem-Solving model through a deep learning approach.	☒	Compliant

The results of the *checklist* sheet in Table 5 show that all the needs obtained at the analysis stage have been listed in the E-Worksheet design. This shows that the design process has been carried out based on the needs of teachers and students, so that the products developed are relevant to the conditions in the field. In line with Ragil et al. (2026), teaching materials need to be designed based on student needs and made as attractive as possible to increase students' interest in learning. Some results from the self-design of the E-Worksheet are presented in Table 6.

Table 6. Results of Self Design E-Worksheet

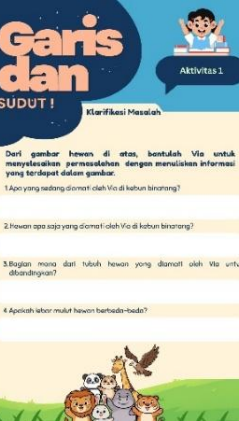
Cover	Learning Objectives & Instructions Usage	Contextual Problems	Student Activities
			

The selection of colors, fonts, and images was carefully adjusted and designed to be as attractive as possible to increase students' interest in using the instructional materials, thereby also enhancing their motivation and interest in learning. This is consistent with the findings of Azzahra (2025), which state that effective instructional materials should be able to attract students' interest in learning, have clear learning objectives, be systematically organized, be adapted to students' ability levels, and use

communicative language. After the design was completed in Canva, the file was downloaded into PDF (Portable Document Format) format and then converted into a flipbook by uploading it to the FlipHTML5.com website. The development of instructional materials needs to be adapted to students' conditions, which are closely connected to technological developments. The use of E-Worksheet can increase students' interest and focus during the learning process (Zhalila et al., 2024). The researchers also prepared a validation questionnaire to be validated by experts.

After the initial draft of the E-Worksheet had been completed, a self-evaluation was conducted to independently review and improve the E-Worksheet before the expert validation process. The results of the self-evaluation of the designed E-Worksheet are presented in Table 7.

Table 7. Results of E-Worksheet Self Evaluation

Before revision	Revision notes	Revision notes
	Adding word "Electronic" and changed to "E-WORKSHEET" on the cover.	
 	Change to "E-WORKSHEET" on the instructions for use.	 
	Reduce the size of the column for the student's answer to match the result of the answer.	

The results of the self-evaluation presented in Table 7 aimed to reevaluate the completeness of the components included in the developed product in terms of construct validity (Supriawan et al., 2026).

The self-evaluation was conducted three times. In the first self-evaluation, improvements were made to the main cover by changing the term “LKS” to “E-Worksheet” to reflect the form of the developed product. In the second self-evaluation, revisions were made to the instructions for use by changing the term “LKS” to “E-Worksheet” to ensure consistency throughout the product. In the third self-evaluation, the answer fields were adjusted to better accommodate students’ needs when completing each activity in the E-Worksheet. The results of the self-evaluation were used to refine the product before proceeding to the expert validation stage.

Development Stage

The next stage was the development stage. At this stage, the design resulting from the design stage was first consulted with the academic supervisors. After the academic supervisors approved the product, the validation process was conducted to obtain an assessment of the validity of the E-Worksheet. Expert validation was conducted to determine the feasibility of the instructional material or product developed by the researchers based on predetermined criteria, thereby determining whether it was suitable for testing (Maulidia & Hudaidah, 2023). The validators consisted of two material experts and two instructional media experts. After the validation stage was completed, quantitative and qualitative assessments were obtained from the validators. The results of the validators’ assessments of the E-Worksheet are presented in the assessment recapitulation in Tables 8 and 9.

Table 8. Material Expert Validation Results

Assessment Aspects	Validator Final Value (%)		Final Score (%)	Category
	1	2		
Isi	96,43	100	98,21	Highly Valid
Presentation	93,75	93,75	93,75	Highly Valid
Language	100	100	100	Highly Valid
Final Score			97,32	Highly Valid

Based on Table 8, the results of the validation conducted by the material experts showed that the developed E-Worksheet obtained an average score of 97.32%, which was categorized as highly valid. This average validation score was achieved because the material presented in the Creative Problem-Solving E-Worksheet covered aspects of content, presentation, and language. The feasibility of the content, presentation, and language aspects play an important role in determining the quality of the developed worksheet and students’ level of interest in the learning process (Umriyyah et al., 2024).

In terms of the content aspect, the validity questionnaire resulted in an average score of 98.21%, categorized as highly valid. This indicates that the developed instructional material was consistent with the learning outcomes for Phase D, learning objectives, conceptual accuracy, the Creative Problem Solving (CPS) learning model, contextual learning, and students’ needs. The content of an E-Worksheet is considered valid when the material presented is consistent with the applicable curriculum and supports the achievement of learning objectives (Wudda et al., 2024). In terms of the presentation aspect, the validation of the developed E-Worksheet instructional material obtained an average score of 93.75%, categorized as highly valid. This indicates that the developed instructional material was systematically organized and attractively presented. An attractive, interactive, and easily accessible E-Worksheet can help increase students’ interest and motivation to learn (Rangkuti & Jalal, 2025).

In terms of the language aspect, the validity of the questionnaire resulted in an average score of 100%, categorized as highly valid. This indicates that the language used in the developed instructional material was clear and consistent with the rules of the Indonesian language. The use of accessible language in the E-WORKSHEET helps students understand the learning material (Nisak & Susantini,

2023).

Table 9. Results of the Media Expert Validation

Assessment Aspect	Validator Final Score (%)		Final Score (%)	Category
	3	4		
Design	93,75	93,75	93,75	Very Valid
Technical Quality	95,83	100	97,91	Very Valid
Overall Final Score			95,83	Very Valid

Based on Table 9, the validation results for the Creative Problem-Solving E-WORKSHEET instructional material conducted by the media experts obtained an average score of 95.83%, which was categorized as highly valid. This indicates that the developed media was consistent with the aspects of design and technical quality. The developed E-WORKSHEET had a neat layout, attractive color and font selections, a consistent format, and was easy to use and access through various devices. The use of an E-WORKSHEET that can be accessed through various digital devices helps students learn more flexibly and independently (Maryah et al., 2025).

The design aspect was one of the aspects assessed. This aspect included the use of fonts (type and size), images, elements, and colors. In terms of the design aspect, the validation of the developed E-WORKSHEET instructional material obtained an average score of 93.75%, categorized as highly valid. This indicates that the layout and visual appeal of the developed instructional material were highly organized and attractive. Student worksheets that present only text without accompanying images may cause students to become bored and less interested in learning (Umriyyah et al., 2024).

The final aspect assessed was technical quality. In terms of technical quality, the validity questionnaire resulted in an average score of 97.91%, categorized as highly valid. This indicates that the clarity of the format and the ease of use of the instructional material were very good. The accessibility of the E-WORKSHEET through various devices, such as smartphones, tablets, laptops, and computers, is expected to provide students with greater flexibility in learning (Nurtanto & Suneki, 2024). The recapitulation of the validation results of the instructional material by the material and media experts is presented in Figure 3.

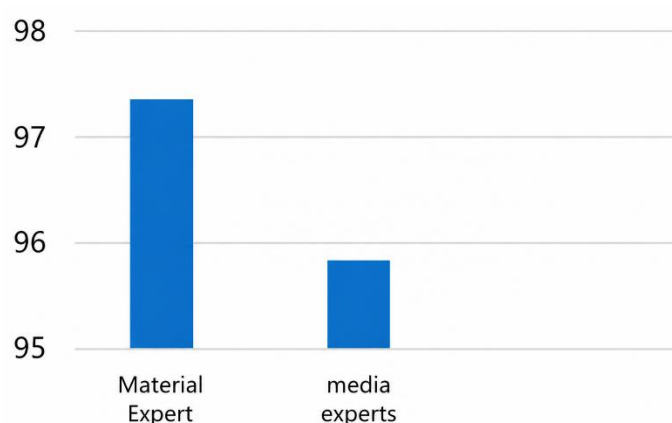
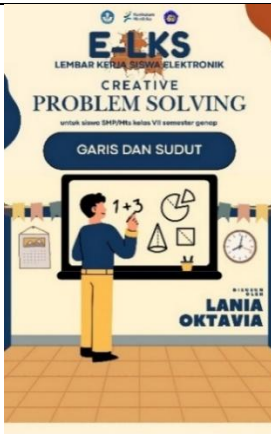
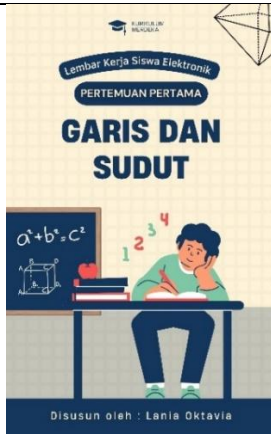


Figure 3. Validation Results by Experts

The validation results indicate that the developed E-Worksheet has met the criteria for the very valid category, indicating that it is appropriate for use as supporting teaching material in mathematics learning. Although the overall evaluation demonstrated a high level of validity, the media validators

provided several constructive suggestions to further improve the quality of the product, particularly in terms of its visual appearance, organization, and systematic presentation. The recommendations included adding information about the target educational level on the front cover to make the intended users more explicit and combining all worksheets from the first meeting to the final meeting into a single integrated book rather than presenting them as separate files. These revisions were intended to improve the consistency, practicality, and ease of use of the E-Worksheet for both teachers and students. Based on these recommendations, the main cover was redesigned to present the general topic, namely Lines and Angles, while divider pages were added at the beginning of each meeting to clearly indicate the lesson identity and learning sequence. As a result, the E-Worksheet became more organized, user-friendly, and visually consistent. The results of the revisions made in response to the validators' suggestions are presented in Table 10.

Table 10. Cover Before and After Revision

Before revision	Revision notes	After revision	
	Adjust the cover after merging each meeting and add an education level.		

Based on Table 10, the revisions to the E-Worksheet cover were made in accordance with the validators' suggestions. The revisions included adjusting the cover after combining the E-Worksheet for each meeting and adding information about the educational level to the main cover. After the E-Worksheet was combined, each meeting was presented with its own divider page to facilitate the learning process. These improvements were necessary to enhance the quality of the instructional material (Suci, 2024).

The results of this study are consistent with those of Lestari et al. (2024), who reported that the developed E-Worksheet was categorized as highly valid in terms of both material and media based on the validators' assessments. However, this study differs in terms of the learning model and approach integrated into the E-WORKSHEET. This study employed the Creative Problem Solving (CPS) model through a deep learning approach for the topic of lines and angles, whereas Lestari et al. (2024) used a Realistic Mathematics Education (RME) approach to improve mathematical connection skills in general. This difference implies that variations in learning models and approaches in the development of E-Worksheet materials provide teachers with opportunities to adapt digital instructional materials to the characteristics of the content and the specific competencies to be developed.

Although the findings indicate that the developed instructional material was categorized as "highly valid," several limitations of this study should be acknowledged. First, the validation process involved only four expert validators; therefore, the validity results remain limited and cannot be broadly generalized. Future studies could involve a larger number of validators with more diverse backgrounds.

Second, this study was limited to the expert validation stage and was not continued to student trials. Consequently, the practicality and effectiveness of the instructional material in the learning process could not yet be determined. Therefore, future research should conduct product trials to examine the implementation, students' responses, and the effectiveness of the developed instructional material.

CONCLUSION

The E-WORKSHEET based on the Creative Problem Solving (CPS) model through a deep learning approach for the topic of lines and angles has been successfully designed and developed. Based on the results of expert validation, the developed E-Worksheet meets the established eligibility criteria and is categorized as very valid, indicating that it is suitable for use as an additional teaching material to support the mathematics learning process. The integration of the Creative Problem-Solving model with a deep learning approach is expected to facilitate students' active engagement, critical thinking, and meaningful understanding of mathematical concepts. Therefore, this E-Worksheet has the potential to enhance the quality of classroom instruction and enrich students' learning experiences. Future studies are recommended to examine the practicality and effectiveness of the developed E-WORKSHEET in real classroom settings, particularly in improving students' mathematical problem-solving abilities, conceptual understanding, and learning outcomes, not only on the topic of lines and angles but also across other mathematics topics and educational levels.

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