



Research Article

Development of Arabic Calligraphy Teaching Materials Based on 21st-Century Skills

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Abstract.

The industrial revolution and the emergence of 21st-century skills challenge educators in preparing their students to compete globally. Lecturers are responsible for integrating their teaching with 21st-century skills. This research is one of the efforts to develop teaching materials for Arabic calligraphy courses based on 21st-century skills. The research method used in this study is research and development. The research and development model used adopts the Dick and Carey model, which is summarised in the ADDIE phases, combined with the curriculum design model of Merdeka Belajar Kampus Merdeka (MBKM). The research phases consist of five stages: needs analysis, design of teaching materials, development of teaching materials, implementation of teaching materials, and evaluation of the teaching material product. In the validation process, the researcher used open- and closed-ended questionnaires, product testing through validation and reliability testing, involving subject matter experts, instructional experts, lecturers using the teaching materials, and a small group test involving 20 students from the first semester of the academic year of 2022-2023 in Semester 119. Data collection for expert assessment was done through questionnaires, while one-on-one testing was conducted through interviews. Data analysis used the Guttman scale, scoring 1 for "Yes" and 0 for "No." Based on the assessment of subject matter experts and lecturers, the developed teaching material was considered very good and in line with the principles of developing 21st-century skills.

Keywords: development of teaching materials, Arabic calligraphy, 21st-century skills

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1. Introduction

In this introduction, the researcher draws upon several studies previously conducted by other researchers as a guide and comparison for conducting their research. The studies used as references and comparisons in this context are research works that have already been published in various national and international journals. The first study is by Ahmad Yasir Amrulloh and Nino Indrianto in 2022, titled *Development of Digital Calligraphy Based on Android Applications for Arabic Calligraphy Learning* (Pengembangan Kaligrafi Digital Berbasis Aplikasi Android Untuk Pembelajaran Khat Araby). This study aims to produce digital Arabic calligraphy sticker products and

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test their validity based on material experts. This research employs the ADDIE model development method, which has been modified into four stages: analysis, design, development, and implementation. The development results in this research consist of digital calligraphy stickers designed through Android-based applications, including Ana Muhtarif al-Khat, PixelLab and Wemoji.

The second study is titled *Arabic Calligraphy Learning to Enhance Writing Skills* (Pembelajaran Kaligrafi Arab untuk Meningkatkan Maharah Al-Kitabah), conducted by Muhammad Fauzi and Muhammad Thohir in 2020. The purpose of this research is conducted so that students can form the alphabet and spell. Furthermore, it can also help students in expressing their thoughts and feelings through writing. Enhancing the skill of calligraphy, there are several techniques, one of which is *khat* (calligraphy). *Khat* is the process of writing neatly and beautifully, so in learning calligraphy, learners not only write letters and form words and sentences but also touch on the aspect of aesthetics or beauty, making them comfortable and eager to continue writing. Therefore, the goal of learning calligraphy is for the participants to be skilled in writing Arabic letters and sentences correctly and beautifully. Suitable teaching methods for calligraphy include demonstration method, imitation method, lecture method, assignment method and drill method.

The third study is titled *Development of a Naskhi Calligraphy Textbook to Improve Calligraphy Writing Skills for Beginners* (Pengembangan Buku Ajar Kaligrafi Naskhi Untuk Meningkatkan Keterampilan Menulis Kaligrafi Bagi Pemula) by Amrullah Widiarto in 2018. This research on the development of a *Naskh* calligraphy textbook aims to create a textbook for writing *Naskh* calligraphy as a solution to the need for teaching materials in the Arabic calligraphy writing subject for first-grade students at the Madrasah Diniyah Pondok Pesantren Al-Qur'an Nurul Huda Singosari. This calligraphy textbook is designed using practical language, so students who study it are guided to acquire the skill of writing *Naskh* calligraphy. The teaching model used is elaboration learning and competency-based learning.

Based on several studies above, it can be identified that previous research has examined the development of calligraphy teaching materials. However, so far, no research has integrated it with 21st-century skills. This motivates the researcher to research the development of Arabic Calligraphy Teaching Materials. Additionally, the researcher aims to create calligraphy teaching materials that can serve as a guide for students in the Arabic Language Education study program at the Faculty of Language and Arts, State University of Jakarta. These teaching materials include both theoretical and practical



aspects, with the hope that students can understand the subject of Arabic Calligraphy theoretically and practically.

2. Literatur Review

2.1. Development of teaching materials

Teaching materials are part of learning resources. Learning resources refer to the sources that support the learning process, including service systems, instructional materials, and the environment. Teaching materials are organized based on specific learning objectives, learner characteristics, and learning strategies for each learning goal. Teaching materials are closely related components of the content of each subject and must be relevant to learning objectives, learner characteristics, and learning strategies. Seaching materials as both print and electronic information used by learners to achieve learning objectives. This includes instructional materials for general learning purposes (delivering standard competencies and basic competencies that have been established) and additional materials for enrichment or remedial purposes. Teaching materials are anything used by teachers to provide students with the ability to achieve specific competencies.

Teaching materials as systematically organized learning materials used by teachers and students in the learning process. Furthermore, the Directorate General of Primary and Secondary Education explains that instructional materials, in a broad sense, consist of the knowledge, skills, and attitudes that students must learn to achieve the specified competencies. In detail, types of learning materials include knowledge (facts, concepts, principles, procedures). The Dikmenjur website states that teaching materials are a set of systematically organized teaching materials that present a complete picture of the competencies students will master in the learning process. With teaching materials, students can learn competencies or learning objectives sequentially and systematically, allowing them to accumulate the ability to master all competencies comprehensively and integratively.

In 2008, the Directorate General of Primary and Secondary Education stated in Permendiknas No. 41 of 2007 that instructional materials contain relevant facts, concepts, principles, and procedures, written in bullet points according to the formulation of competency achievement indicators. They defined teaching materials as a set of systematically organized materials that create an environment conducive to learning. Teaching materials should, at a minimum, include learning instructions (student/teacher



instructions), competencies to be achieved, content or instructional material, supporting information, exercises and work instructions, which can be in the form of worksheets, evaluations and feedback on evaluation results.

From the various definitions mentioned above, it can be concluded that teaching materials encompass everything used by teachers and students for the learning process, whether it originates from print technology, audiovisuals, computer-based technology, or integrated technology. The development of teaching materials as a development model serves as the basis for creating the products. The development model can be procedural, conceptual, or theoretical. The procedural model is descriptive and outlines the steps to be followed to produce a product. The development of teaching materials depends on the syllabus/curriculum model at that time. As is the case now, relying on contextual learning, the development of teaching materials must be able to respond to the standard competencies and basic competencies that are the ultimate goals of education in that curriculum. From the explanations provided earlier, it can be concluded that in the development of print-based teaching materials, the focus should be on the core principles within the development area, involves the complex interplay between technology and theory that drive both message design and learning strategies, so that the developed teaching materials do not deviate from the context of content, learning strategies driven by theory and the physical manifestation of the technology used.

The development of teaching materials, various aspects can serve as references, including: (1) Concepts are ideas or thoughts. (2) Principles are fundamental truths as a starting point for thinking or as guidelines for action or implementation. (3) Facts are things that have happened or have been done or experienced. (4) Processes are a series of changes, movements, and developments. (5) Values are patterns, measures, or models. (6) Skills are the ability to do something well. These benefits are divided into two types, namely benefits for teachers and students (Prastowo, 2012). The benefits obtained by teachers are teaching materials that align with curriculum requirements, not dependent on textbooks and government supplementary materials, while the benefits for students are the creation of engaging learning experiences, the stimulation of motivation, reduced dependency, and ease in mastering each indicator in the instructional materials prepared by the teacher. Teaching materials can be interpreted as complete and systematic materials organized based on the principles of learning used by teachers and students in the learning process. Teaching materials are systematic, meaning they are organized in a sequence to facilitate student learning. Furthermore, teaching materials are also unique and specific. Unique means that teaching materials are only used for specific targets and specific learning processes, and specific means that the content



of teaching materials is designed in such a way to achieve specific competencies for specific targets. Teaching materials are not limited to books or modules; they can take other forms as well.

2.2. Arabic calligraphy

Calligraphy or *khat* plays a significant role in the development of Islamic culture, with a strong historical aspect that has garnered substantial attention from historians and cultural enthusiasts. For over 14 centuries, calligraphy has been the dominant force shaping the panorama of Islamic art as a whole. The word calligraphy or, in its Arabic form, *khath* is often associated with the skill of beautifully writing letters or its visual form (Khath Hasan Jamîl), rather than its content or material. The word *calligraphy* is derived from the English language, originating from the Latin word *kalios*, meaning 'beautiful' and *graphein* meaning 'writing.' Thus, calligraphy can be interpreted as 'beautiful writing' or the art of writing beautifully.

According to Srajudin A.R., besides containing the command to write, he further states that what is more astonishing is that reading and writing are the first commands in this revelation. It can be affirmed that the pen or *kalam* is closely related to the art of calligraphy. If the pen is as described above, it is indeed a means by which the Creator, Al-Khaliq, imparts guidance to humanity. This provides a clear picture that calligraphy holds the most ancient place in the history of Islamic civilization itself.

2.2.1. Definitions of Calligraphy According to Experts

According to Sheikh Shamsuddin Al-Ahfani, calligraphy is a discipline that studies various forms of individual, separate, and their layouts. It also involves the method or technique of arranging them into word structures or writing on paper. (Al-Akfani - Irsyadul Qasid). Meanwhile, Yaqut Al-Musta'shimy defines calligraphy as the art of architecture expressed through skill. On the other hand, Ubaid ibn Ibad describes calligraphy as an envoy or messenger of the hand, with the pen being its envoy. From the above definitions, it can be observed that there are differences. One of the distinctions is that calligraphy requires specific rules in the formation of each letter, the connection between each letter, and their arrangement within words or sentences.

Furthermore, there is the element of beauty, consistency of form, and commonly used formulas. The word *khat* as a ma\(\text{Mat}\) as a ma\(\text{Mat}\) noun) derived from *khaththa* (\(\text{MX}\)) has several meanings, including writing, drawing lines, underlining, planning, and more.



Besides *khat*, it is also referred to as *imla*'. The term *imla*' is the ma⊠dar form of *amla* (املی), which means dictation (التلقين).

The art of calligraphy is not arbitrary; there are specific reasons behind each technique. It involves precise geometry, strict rules, and an unwritten agreement among calligraphy artists: no matter how beautiful, diverse, or intricate the calligraphy may be, it must not alter the original meaning and text of the Quran. Even in the early stages of recording the Quran in written form, calligraphy served as a tool to aid in Quranic reading to prevent mispronunciations that could lead to changes in meaning.

One of the contributions of calligraphy to Quranic recording is the introduction of punctuation marks and specific colouring to ensure correct Quranic reading. Calligraphy for Quranic recording was first established during the leadership of 'Abd al-Malik ibn Marwan. Initially, *khat* and *kitabah* had the same meaning. However, in subsequent developments, the use of *khat* differed from *kitabah* with *kitabah* having a broader meaning. *Khat* is a subset of *kitabah* with distinct characteristics, including aesthetic value and adherence to established rules.

From this understanding, *khat* is closely related to *kitabah* requiring compliance with *khattiyah* rules and *imla'iyah* rules. When writing, one must ensure that the letters written correspond to those pronounced; sometimes, a letter is pronounced but not written, and at other times, a letter is written but not pronounced. In addition to *khattiyah* rules, *imla'* and *insya'* rules are also crucial for examination.

2.3. 21st century skills and their integration into teaching materials

Life in the 21st century demands a variety of skills that individuals must master, so it is expected that higher education can prepare its graduates to master various 21st-century skills to become successful individuals in life. 21st-century skills are essentially essential skills that can guide us to face the challenges of the 21st century [1]. Meanwhile, the US-based Partnership for 21st Century Skills (P21) states that 21st-century skills encompass skills for communication, collaboration, critical thinking, and creativity [2]. Piirto [3] mention that 21st-century skills include creativity and innovation within a comprehensive skill framework. Operationally, these skills include the ability to think creatively, work creatively with others, and implement various innovations. Meanwhile, Tan et al. [4] identified eleven key skills required for success in the global world of the 21st century, including communication and collaboration, critical thinking and problem-solving, creativity and innovation, information literacy, media literacy, ICT literacy, flexibility and



adaptability, self-initiative and direction, social and cross-cultural skills, productivity and accountability, as well as leadership and responsibility.

In the context of education, there are ten 21st-century skills recommended to be applied by educators to their students. These ten skills are classified into four categories: way of thinking, way of working, tools for working, and skills for living in the world. The way of thinking includes creativity, innovation, critical thinking, problem-solving, and decision-making. The way of working encompasses communication skills, collaboration, and teamwork. Tools for working include being aware as a global or local citizen, life and career development, and personal and social responsibility. Meanwhile, skills for living in the world are based on information literacy, mastery of new information and communication technologies, and the ability to learn and work through digital social networks [1].

The integration of 21st-century skills into the curriculum, syllabi, and learning is one of the crucial issues in recent times. This issue arises from the global movement calling for new 21st-century learning models needed to address complex global challenges [5]. In addition, the explosion of digital information has made it challenging for people to select the necessary information, further driving the need for integrating 21st-century skills into learning [6].

The integration of 21st-century skills into a course can be done through two steps. First, incorporating the 4C elements (critical thinking, collaboration, creativity and communication) into the course syllabus, which includes teaching materials, teaching methods, and assessments. Second, detailing the course competencies related to these elements and incorporating the 4C aspects into these competencies [7]. The way to integrate 21st-century skills into the learning process is by implementing activities that encourage learners to think critically, collaborate, create and communicate effectively in the classroom. According to Perdue [8] to integrate 21st-century skills into learning, we can do so by applying active and group-based learning principles.

3. Method

The stages to be carried out in this research adopt the ADDIE model. The development stages using the ADDIE model consist of five core stages, namely analysis, design, development, implementation, and evaluation. These five stages are combined with the curriculum and teaching materials development model of MBKM. The steps for developing teaching materials can be visually seen as shown in the following diagram below.



1. Analysis

The analysis stage is a process that will define what will be studied, and how the availability and relevance of the textbooks used in the learning activities are. Furthermore, in this stage, identification is carried out regarding various issues, especially related to the learning strategies and the conditions of learning activities in the course of Rural-Urban Geography.

2. Design

This stage is also known as the term "designing." The design carried out consists of determining learning objectives and selecting the core materials to be covered in the teaching and learning activities, which are then used as the framework for writing a teaching book.

3. Development

Development is the process of bringing the earlier design into reality, namely the process of writing a textbook and its development based on predetermined criteria.

4. Implementation

Implementation is a concrete step to apply textbooks in the classroom as a learning medium. At this stage, the developed textbooks are prepared in such a way that they can be implemented according to the initial design.

5. Evaluation

Evaluation is the process of assessing whether the instructional materials being developed are successful and align with the initial expectations. The evaluation that occurs at each of the four stages mentioned above is called formative evaluation because its purpose is for the sake of revision. For example, during the design stage, we may require a formative evaluation, such as an expert review, to provide input on the design being created. During the development stage, there may be a need for testing the developed product or conducting evaluations with small groups, among other things. Additionally, at this stage, summative evaluation is also necessary to assess the impact or outcomes of the instructional materials being developed.

4. Results and Discussion



4.1. Analysis of students' needs for arabic calligraphy teaching materials

The initial stage involved distributing questionnaires to 96 student respondents. The following is the result of gathering information on the analysis of students' needs for Arabic calligraphy teaching materials, calculating the average scores and percentages as follows:

TABLE 1: Student respondents

Assertions	Responses		
	Yes	No	
Score	1	0	

$$x \boxtimes \frac{total\ acquired\ score}{total\ maximal\ score}$$

$$\overline{x} = \frac{total\ acquired\ score}{total\ maximal\ score} x 100\%$$

To interpret the results of the calculations obtained, the researcher then used the following Guttman scale classification table.

TABLE 2: Guttman Scale Classification.

Score Intervals	Criteria
<i>x</i> > 0,8	Very Good
$0.6 < \bar{x} \le 0.8$	Good
$0.4 < \bar{x} \le 0.6$	Sufficient
$0.2 < \bar{x} \le 0.4$	Bad
$\bar{x} \le 0.2$	Very Bad

Average Score:

$$\overline{x} = \frac{total\ acquired\ score}{total\ maximal\ score} x 100\%$$

$$\overline{x} = \frac{882}{1164} \times 100\%$$

$$\bar{x}$$
=0.75%

$$\overline{x} = \frac{total\ acquired\ score}{total\ maximal\ score} x 100\%$$



TABLE 3: Table of the results of the calligraphy teaching material needs questionnaire.

Assertion	Responses			
	Yes	No		
Do you have textbooks or any other references for calligraphy materials?	14	83		
Are you looking for other materials to help you understand a subject, such as modules or the Internet?	89	8		
Are you having difficulty understanding calligraphy materials from the internet?	66	31		
Have you been provided with teaching materials to learn about calligraphy topics?	79	18		
If yes, do teaching materials make it easier for you to understand calligraphy?	67	30		
Do lecturers use specific teaching materials to teach that subject?	66	31		
If yes, does the teaching material make it easier for you to understand the subjects taught by your lecturer?	65	32		
Can you use the teaching material to review the lessons that have been taught?	74	23		
Does the study time on campus affect your understanding of calligraphy lessons?	80	17		
If there are teaching materials that can be used to understand calligraphy lessons at any time, can they enhance your knowledge, interest and value in the subject of calligraphy?	89	8		
Do you need a teaching material for calligraphy that is easy to use to make learning easier and more engaging?	97	0		
Do you agree if calligraphy teaching materials are developed on your campus?	96	1		
Score	882*1	282*0		
	882	0		

$$\overline{x} = \frac{471}{679} \times 100\%$$

$$\bar{x}$$
=0,69%

Analysis of student characteristics

In preparing a learning plan, it is very important to pay attention to the characteristics of the students who will be directly involved in the learning process. This, researchers identified various characteristics of learning styles in students by distributing a questionnaire. The following are the results of the questionnaire.

Based on the results of the above data, we can see that the most frequently chosen answers by students are those that involve direct activities or engagement. Based on this fact, it can be concluded that the learning style of the majority of students in the Arabic Language Education study program is kinesthetic. Kinesthetic learning is a multimodal style that uses a combination of sensory functions. Kinesthetic learners learn through



TABLE 4: Survey Results on 21st Century Development Needs.

Assertion	Responses		
	Yes	No	
Have you already applied a critical thinking approach in learning calligraphy?	40	57	
Has the creative and innovative approach been reflected in learning calligraphy?	73	24	
Has the problem-solving approach been reflected in learning calligraphy?	56	41	
Has the communicative approach been reflected in learning calligraphy?	70	26	
Has the information literacy approach been reflected in learning calligraphy?	76	20	
Has media literacy been applied in calligraphy education?	76	20	
Has information and communication technology literacy been applied in calligraphy learning?	80	16	
Score	471*1	204*0	
	471	0	

touch, movement and actions. [9]. Kinesthetic learners prefer direct engagement in learning because they emphasize their experiences when studying something [10]. With the majority of students having a kinesthetic learning style, it's not surprising that most of them prefer learning models that involve them directly.

4.2. Material Expert Validation

This material expert validation stage involved lecturers at the Arabic Language Education Study Programme, Universitas Negeri Jakarta. The validity of the material studied was verified on 12 December 2023. The results obtained by researchers were **97.3%**.

Based on the validation results of material experts, this reached a percentage of **97.3%**, which is equivalent to the "**Very Good**" category so that the material meets the requirements.

4.3. Media Expert Validation

This media expert validation stage involved lecturers at the Arabic Language Education Study Programme at the Universitas Negeri Jakarta. The validity of the media was verified on December 13 2023. The results obtained by researchers were **94**%.



No Assessment Aspects **Scoring Scale Learning Aspects** Suitability of material with basic competencies Compliance of material with indicators 2 Suitability of material to learning objectives Student interaction with the media Growing motivation to learn 6 Update the material presented Adequacy of teaching materials in the guide 8 Completeness of material coverage The level of difficulty of the material is following basic competencies Clarity of the proportions of Khat Naskhi letters according to the rules 11 Ease of learning to understand 12 Easy to understand language 13 Clarity of study instructions The truth of the material is according to the rules of Khat 14 Naskhi letters Accuracy of Khat Naskhi letter rules according to basic competencies $P = \frac{f}{N} \times 100\% = \frac{73}{75} \times 100\% = 97.3\%$ Total

TABLE 5: Material expert validation.

Based on media expert validation results, this reached a percentage of **94**%, which is equivalent to the "**Very Good**" category so the media meets the requirements but needs to be corrected with several notes including:

- 1. Typographical errors in some explanatory descriptions in text form.
- 2. It is necessary to look again at the completeness of the text to avoid typographical errors.

4.4. Student Evaluation (Small Group)

After conducting small group trials in a class, implementing the development of Arabic Calligraphy Teaching Materials Based on 21st Century Skills, the researcher distributed a learning evaluation questionnaire with 10 questions to the small group in the Arabic Language Education Study Programme, Faculty of Languages and Arts, Universitas Negeri Jakarta via Google Form on 15 December 2023. With the results obtained by researchers, namely **93**%.

TABLE 6: Media expert validation.

No	Indicator	Research Scale				
		1	2	3	4	5
	APPEARANCE / VISUAL AS	PECTS				
1	Suitability of <i>Khat Naskhi</i> letter selection for ease of learning					$\sqrt{}$
2	Appropriate choice of <i>Khat Naskhi</i> font size in the video tutorial					$\sqrt{}$
3	Clarity on how to make Khat Naskhi letters					$\sqrt{}$
4	Match the text color to the displayed background					
5	The quality of the images used					
	MEDIA ASPECTS					
6	Ease of operation video tutorials					$\sqrt{}$
7	Smooth operating system tutorial videos					$\sqrt{}$
8	The clarity of the language in the video tutorial is easy to understand				\checkmark	
9	Video tutorials make it easier to deliver <i>Khat Naskhi</i> material					$\sqrt{}$
10	Video tutorials can attract students' attention					
	Total	$P = \frac{f}{N}$	× 1009	$\% = \frac{47}{50}$	× 100%	=94%

TABLE 7: Student evaluation.

No	Indicator		Research Scale			
		Yes	No	Percentage		
1	Is the Khat Naskhi video tutorial interesting?	25	1	96,2%		
2	Are the <i>Khat Naskhi</i> video tutorial operating instructions easy to understand?	25	1	96,2%		
3	Are the text and images in the <i>Khat Naskhi</i> tutorial video visible?	25	1	96,2%		
4	Is the colour combination of the <i>Khat Naskhi</i> tutorial video appropriate?	25	1	96,2%		
5	Is the explanation in the <i>Khat Naskhi</i> tutorial video following basic competencies?	25	1	96,2%		
6	Are the proportions of the <i>Khat Naskhi</i> letters in the tutorial video appropriate?	25	1	96,2%		
7	Is the <i>Khat Naskhi</i> tutorial video explanation easy to understand?	24	2	92,3%		
8	The <i>Khat Naskhi</i> tutorial video makes me calmer and less tense when actualizing it	22	4	84,6%		
9	Implementation of learning using <i>Khat Naskhi</i> video tutorials becomes more effective and efficient	23	3	88,5%		
10	Khat Naskhi video tutorials provide a new atmosphere in learning Khat.	23	3	88,5%		
	Total			93%		



Based on the results of student evaluations filled in by small groups, the percentage reached **93**%, which is equivalent to the "**Very Good**" category so the media meets the requirements.

5. Conclusion

Globalization and technological advancement drive educators to not only impart knowledge to their students but also equip them with 21st-century skills, including creativity, collaboration, communication, critical thinking, problem-solving and information technology literacy. Therefore, the Arabic Calligraphy teaching materials in the Arabic Language Education Study Program, Faculty of Language and Arts, State University of Jakarta need to be developed to align with the requirements for mastering 21st-century skills. Based on the results of questionnaires and surveys distributed to students, assessments by experts, and interviews with course instructors, the calligraphy teaching materials developed using the ADDIE model by Dick and Carey and the syllabus model of *Merdeka Belajar Kampus Merdeka* are excellent and should be further developed in line with the advancement of 21st-century skills.

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References

- [1] Griffin P, McGaw B, Care E. 2012. Assessment and teaching of 21st century skills. In Assessment and teaching of 21st century skills. Springer. https://doi.org/10.1007/978-94-007-2324-5
- [2] Skills P. for 21St C. 2011. Framework for 21st century learning. Partnership for 21st Century Skills.
- [3] Piirto J. 2011. Creativity for 21st century skills how to embed creativity into the curriculum. Sense Publishers.
- [4] Tan J. P. L, Choo S. S, Kang T, Liem G. A. D. 2017. Educating for twenty-first century competencies and future-ready learners: research perspectives from Singapore. In



- Asia Pacific Journal of Education. https://doi.org/10.1080/02188791.2017.1405475
- [5] Zubaidah S. 2016. Ketrampilan Abad 21: Ketrampilan yang Diajarkan Melalui Pembelajaran. Seminar Nasional Pendidikan. Conference: Seminar Nasional Pendidikan dengan tema "Isu-isu Strategis Pembelajaran MIPA Abad 21, Program Studi Pendidikan Biologi STKIP Persada Khatulistiwa Sintang, Kalimantan Barat
- [6] Trisnawati W. W, Sari A. K. 2019. Integrasi Keterampilan Abad 21 Dalam Modul Sociolinguistics: Keterampilan 4C Collaboration Communication Critical Thinking Dan Creativity. Jurnal Muara Pendidikan
- [7] Sumiati A, Lustiyantie N, Iskandar I, Jakarta U. N. 2020. Integrating 21 st century skills into translation classroom: 6(2): 87–96. https://doi.org/doi.org/10.21009/IJLECR.062.11
- [8] Perdue M. 2020. Practicing 21st century skills in the classroom. 6th International Conference on Higher Education Advances 20:85–94. https://doi.org/10.4995/HEAd20.2020.10984
- [9] Muluk S, Habiburrahim H, Rechal SR. 2020. Students' Awareness and Perception Towards Learning Styles. JURNAL ILMIAH DIDAKTIKA: Media Ilmiah Pendidikan Dan Pengajaran, 20(2). https://doi.org/10.22373/jid.v20i2.5229
- [10] Drago WA, Wagner RJ. 2004. Vark preferred learning styles and online education. Management Research News 27(7): 1–13. https://doi.org/10.1108/01409170410784211