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DEVELOPING A CONTEXTUAL-BASED TEACHING MATERIALS PLANNING COURSE AT UIN SUMATERA UTARA, MEDAN

Zunidar
Universitas Islam Negeri Sumatera Utara, Indonesia.
E-mail: zunidar@uinsu.ac.id

Corresponding Author: Zunidar
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Abstract: In light of the necessity for instructional materials that are tailored to the specific learning requirements of students, this study seeks to assess the viability of creating such materials for a course on planning and to evaluate their efficacy. The research method employed was that of development research. The teaching materials were validated by experts, following which individual tests, small group tests and field groups were conducted. The effectiveness of the learning model was evaluated using a t-test. The findings indicated that the teaching materials for the contextual-based learning planning course demonstrated a high level of feasibility for use in learning activities and were found to be effective for use in learning. Based on the statistical testing results (5.34) > t table (1.99), it can be concluded that the teaching materials developed are effective in improving student learning outcomes.

Keywords: Contextual Learning, Planning Course, Teaching Materials.

Introduction

The utilisation of information and communication technology in the implementation of higher education is of paramount importance due to the inherent dynamism and flexibility of contemporary developments surrounding the university. This utilisation is contingent upon the growth and development of higher education institutions, which are inextricably linked to a multitude of internal and external factors.[1] The internal factors are related to the

[1] Michael Sailer, Florian Schultz-Pernice, and Frank Fischer, "Contextual Facilitators for Learning Activities Involving Technology in Higher Education: The

dynamics and flexibility of the higher education institution itself. In contrast, external factors pertain to the dynamics and flexibility of developments occurring outside the higher education institution that nevertheless impact upon it.[2] Furthermore, the implementation of education in an institution can facilitate national progress. It is imperative that this implementation be carried out, as there is a pressing need to organize learning based on information and communication technology, particularly given the current developments in science, technology, and art, which are being disseminated through information and communication technology.[3] This higher education institution must develop and continue to exist, and there is no alternative but to participate in utilizing information and communication technology, both as a source of learning and as a tool to help carry out administrative tasks.[4]

The objective of utilising information and communication technology in learning is to overcome the challenges of equity, relevance and education governance in Indonesia. This implementation is aligned with the vision of the Faculty of Tarbiyah and Teacher Training at the State Islamic University of Sumatera Utara (FITK UIN) Sumatera Utara Medan to become a leading faculty in the field of education. The integration of Islamic teachings at the national level is a key strategy for achieving a learning society by 2025. However, this vision will not be realised without a commitment from the entire academic community to enhance the quality of their education, including the use of information and communication technology in lectures and institutional management.

In order to enhance the quality, relevance and competitiveness of its output, FITK UIN Sumatera Utara Medan has adopted a strategy that makes use of information and communication

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Cb-Model," *Computers in Human Behavior* 121 (August 1, 2021): 106794, https://doi.org/10.1016/j.chb.2021.106794.

[2] Adak Samaresh, "Effectiveness of Constructivist Approach on Academic Achievement in Science at Secondary Level," *ERIC: Academic Journals Educational Research and Reviews* 12, no. 22 (2017).

[3] Henry Matovu et al., "Immersive Virtual Reality for Science Learning: Design, Implementation, and Evaluation," *Studies in Science Education* 59, no. 2 (July 3, 2023): 205, https://doi.org/10.1080/03057267.2022.2082680.

[4] Trianto Ibnu Badar Al-Tabany, *Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual: Konsep, Landasan, Dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI)* (Jakarta: Prenada Media Group, 2014).

technology (ICT). This initiative has been spearheaded by the institution through the development of a range of programmes, particularly those pertaining to ICT-based learning facilities. These include the establishment of internet networks within the faculty that are readily accessible to both lecturers and students, as well as the creation of various portal applications tailored to the needs of both students and lecturers.

The utilisation of information and communication technology in the practical dimension, particularly among lecturers and students, has the potential to alter the mindset and action patterns of lecturers and students in the implementation of course learning. This, in turn, can lead to the expectations and demands of the lecture process experienced by lecturers. In general, students are expected to demonstrate the attributes of a professional person, with the capacity to work upon graduation from college. They are also able to select the manner, content and timing of their learning.[5] The development of information and communication technology has also created opportunities and encouraged a revolution in the ways in which students learn, lecturers teach and information is conveyed, including in the context of education.[6]

A multitude of educational experts have devised an array of learning models that integrate information and communication technology (ICT) in conjunction with ICT specialists. These models encompass a spectrum of ICT-enhanced learning approaches, including e-learning, web-based learning, online learning, distance learning, and blended learning.[7] Currently, a notable trend is the adoption of blended learning, which combines traditional face-to-face classroom instruction with online learning resources, particularly during the ongoing pandemic.

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[5] Sri Wahyu Widyaningsih and Irfan Yusuf, "Implementation of Project-Based Learning (PjBL) Assisted by E-Learning through Lesson Study Activities to Improve the Quality of Learning in Physics Learning Planning Courses," *International Journal of Higher Education* 9, no. 1 (December 23, 2019): 60, https://doi.org/10.5430/ijhe.v9n1p60.

[6] Iskandar Tsani, Nifa Khoirul Miftah, and Noer Hidayah, "Evaluation of Character Education Strengthening Program at SMA Negeri 2 Kediri," *Didaktika Religia* 7, no. 2 (December 14, 2019): 187–206, https://doi.org/10.30762/didaktika.v7i2.2174.

[7] Ahsan Adeel, Mandar Gogate, and Amir Hussain, "Contextual Deep Learning-Based Audio-Visual Switching for Speech Enhancement in Real-World Environments," *Information Fusion* 59 (July 1, 2020): 163–70, https://doi.org/10.1016/j.inffus.2019.08.008.

FITK UIN Sumatera Utara is cognizant of the prevailing circumstances pertaining to the learning system. FITK UIN Sumatera Utara, one of the state universities in the city of Medan, has been granted an expanded mandate to oversee the implementation of educational programmes. The programmes are not solely focused on religious studies; they also encompass general education, including mathematics education, English education, Indonesian language education, social science education, biology education, education management, counselling guidance, and early childhood education. The expansion of the mandate is anticipated to enhance the quality of the programmes while simultaneously reinforcing FITK UIN Sumatera Utara's capacity to provide education that equips prospective educators and staff with the requisite skills and knowledge.

The expansion of this mandate serves to reinforce the mission of FITK UIN Sumatera Utara to become a leading faculty in the field of education, as outlined below. Firstly, the Faculty of Islamic Studies, UIN Sumatra Utara, provides integrated Islamic higher education at the undergraduate, postgraduate and doctoral levels, thus contributing to the intellectual development of the people and nation. Secondly, the faculty develops exemplary programmes in teacher education and Islamic studies, thereby enhancing the quality of human resources. Thirdly, the faculty offers effective, high-quality and competitive professional education for teachers and counsellors. Fourthly, the faculty conducts research in the development of science and technology based on education and Islam. Fifthly, the faculty engages in community service to accelerate the progress of national education in accordance with national education management standards. Sixthly, the faculty provides professional training of teachers and education personnel in order to meet national education standards.

A variety of initiatives have been implemented with the objective of achieving the mission of FITK UIN Sumatera Utara, particularly with regard to enhancing the performance of human resources. In order to fulfil the community's requirements, particularly in regard to the provision of high-quality services for students, it is essential that they are able to meet the demands placed upon them. Specifically, improvements to the quality of learning can be initiated at the level of the learning design. By taking into account

the prevailing circumstances and selecting an appropriate strategy, well-designed learning will enhance the quality of learning and, in turn, improve student learning outcomes. This implies that enhancements to learning outcomes must originate from improvements to the quality of learning designs.

The learning planning courses that have been conducted thus far remain constrained by a reliance on face-to-face instruction, with a predominant focus on lectures and discussions. This approach continues to frame learning as a mere transfer of knowledge process. His communication style is somewhat passive and he tends to align his interests with those of the lecturers rather than those of the students. The inclination of lecturers to select and utilise face-to-face learning methodologies, exemplified by lectures and discussions, has resulted in the learning activities of the Lesson Planning courses being perceived as less engaging, uninteresting, lacking in challenge and devoid of problem-solving elements. Consequently, these courses have failed to capture the students' attention and spark their interest in learning.

Moreover, an examination of the comprehensive learning outcomes of the Learning Planning courses at FITK UIN Sumatera Utara indicates that students have not yet demonstrated the anticipated proficiency. It is crucial to identify and analyse student behaviour and characteristics in order to gain insight into the behaviours that students have already mastered prior to attending planning lectures. It is of great importance for the course supervisor to consider the characteristics of the students when carrying out learning activities, as these can influence a student's motivation, educational background, socio-economic status, age, level of intelligence, learning style and cognitive style.

The primary motivation for students to enroll in this Learning Planning course is the obligation to attend lectures, as this course is a mandatory requirement for all students at the Faculty of Tarbiyah and Teacher Training UIN Sumatera. Moreover, the majority of students enrolled in the Islamic Religious Education programme at FITK UIN Sumatera Utara have obtained their secondary education at madrasah aliyah, Islamic boarding schools, or high schools. It is reasonable to assume that students with this educational background will be able to master the concepts in education that they have learned while studying at madrasas and Islamic boarding schools.

With regard to the socio-economic background and age of students, this characteristic does not represent a significant concern, given that it is not directly related to learning and learning materials for Lesson Planning courses. Furthermore, with regard to the level of intelligence of students, which varies due to differences in *intelligence quotient* (IQ), it is essential to ensure that the instructor of the Learning Planning course provides attention and treatment that is appropriate for the diverse needs of the students, including freedom and intensive learning control.[8]

A number of studies have demonstrated that the learning styles and cognitive styles inherent in students exert a significant influence on the attainment of learning outcomes. It is therefore essential that the instructor of the Learning Planning course is able to ascertain the cognitive style of the student. Once this has been determined, the learning process can be tailored to the student's analytical ability, taking into account the various learning and cognitive styles.[9] In this context, student learning styles encompass visual, auditory and kinesthetic learning styles, while the cognitive style can be characterised as *field-dependent*.

Moreover, the learning context analysis is associated with the process of planning and implementing learning. The process of learning planning itself begins with the formulation and implementation of strategies or methods that utilise media, learning resources, and assessments with the objective of fostering the creation of quality learning. The accessibility of learning materials, in conjunction with the provision of guidelines for lecturers and students, can facilitate the conduct of lectures in a more structured, organised, and systematic manner, thereby influencing the generation of quality learning outcomes.[10]

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[8] Y.-H. Hung, C.-H. Chen, and S.-W. Huang, "Applying Augmented Reality to Enhance Learning: A Study of Different Teaching Materials," *Journal of Computer Assisted Learning* 33, no. 3 (2017): 252–66, https://doi.org/10.1111/jcal.12173; Evi Suryawati and Kamisah Osman, "Contextual Learning: Innovative Approach towards the Development of Students' Scientific Attitude and Natural Science Performance," *Eurasia Journal of Mathematics, Science and Technology Education* 14, no. 1 (October 27, 2017): 61–76, https://doi.org/10.12973/ejmste/79329.

[9] Abu Nawas, "Contextual Teaching and Learning (CTL) Approach Through React Strategies on Improving the Students' Critical Thinking In Writing," *International Journal of Management and Applied Science* 4, no. 7 (2018).

[10] Daryanto, *Model Pembelajaran Inovatif* (Yogyakarta: Gava Media, 2012).

In particular, the facts related to the implementation of the learning planning courses at the FITK UIN Sumatra Utara are worthy of note. The initial stage of the study concerns the programme of study in the FITK UIN Sumatera Utara environment. This is distinct from the question of when the lesson planning course is to be held. The scheduling of these courses varies by study programme, with some being offered in the odd semester and others in the even semester. Upon further investigation, it was revealed that this decision was made in accordance with the distribution of teaching assignments for the lecturers of the Lesson Planning course. Secondly, there was a lack of uniformity in the semester course plans, which included the syllabus, teaching materials and learning resources provided by the lecturers of the Lesson Planning course. Upon further investigation, it was determined that the discrepancy in semester course plans was due to a lack of coordination among the lecturers of the Learning Planning course in the development of the semester programme plan.

Thirdly, no learning tools were designed by the instructor of the Learning Planning course, including learning materials, lecturer guidelines and guidelines. The lecturers' role is limited to providing students with a syllabus containing discussion topics. Furthermore, the lectures that have been developed thus far are based on a needs analysis approach that is still evolving and continues to be perfected due to the inherent dynamics and flexibility surrounding it. In light of the aforementioned observations, it becomes evident that lectures must be developed based on the identification of needs, with a view to designing an evaluation system that addresses these needs in an appropriate manner. This should be done in accordance with the scientific methodology of learning design, with a view to optimising the implementation of learning and achieving the desired results.

In light of the aforementioned observations, this research project is focused on the development of contextual-based teaching materials. In order to enhance learning outcomes, efforts must be made to utilise learning models. One such model that can be employed in this context is the contextual learning model. This model emphasises the process of full student involvement, enabling students to locate the material being studied and relate it to real-life situations, thereby encouraging them to apply their knowledge in problem-solving.

The type of research used is development research by adopting the Gall, Gall, and Borg model. This research method is *educational research and development*, known as RnD.[11] This research is employed in the construction of a contextual learning model. The objective of this development research is the creation of contextual-based teaching materials for Learning Planning courses. The research was conducted at the Islamic Religious Education Study Program, Faculty of Tarbiyah and Teacher Training, the State Islamic University of Sumatera Utara, with the research subject being students of the Islamic Religious Education study program.

Contextual Learning: a Literature Review

A planning course is one that provides students with the requisite knowledge and skills to plan and design lessons. This Learning Planning course examines the fundamental concepts of learning planning, including an understanding of the necessity for learning planning, the principles and characteristics of learning planning, the benefits and functions of learning planning, the criteria for preparing lesson plans, and systems approaches in lesson planning, learning planning models, learning objectives, learning materials, learning methods, learning media, learning resources and assessment of learning outcomes.[12] Anderson and Krathwohl undertook a revision of Bloom's taxonomy by dividing it into two dimensions: that of knowledge and that of factual knowledge. The former comprises terminology knowledge and specific knowledge, conceptual knowledge (encompassing knowledge of classification and categories, knowledge of principles and generalisations, knowledge of theories, models and structures), procedural knowledge (encompassing knowledge of specific skills, knowledge of specific techniques, methods), and metacognitive knowledge (strategic knowledge, knowledge of cognitive tasks, self-knowledge). The latter, in turn, comprises factual knowledge and knowledge of the processes of learning. The cognitive dimension is subdivided into six levels,

[11] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D* (Bandung: Alfabeta, 2011).

[12] Suryawati and Osman, "Contextual Learning," 63.; Stéphane Colognesi et al., "Developing Student Teachers' Reflexivity Toward Their Course Planning: Implementation of a Training Program Focused on Writing and Reflective Skills," *Sage Open* 11, no. 2 (April 1, 2021). https://doi.org/10.1177/21582440211016897.

namely remembering, understanding, applying, analysing, evaluating and creating.[13]

The anticipated outcomes of the implementation of this Learning Planning course are as follows: Firstly, students will be able to develop logical, critical, systematic and creative thinking through scientific research, the creation of designs or works of art in the fields of science and technology that pay attention to and apply humanities values. In their field of expertise, they will be able to compile scientific conceptions and study results based on scientific principles, procedures, and ethics. Secondly, they will be able to identify the scientific field that is the object of research and position it within the context of developed research. Thirdly, they will be able to make decisions in the context of solving the problem of developing science and technology that pays attention to and applies the value of the humanities based on analytical or experimental studies of data information.

In order to achieve the aforementioned objectives, the specifics of the learning materials included in the Lesson Planning course are outlined as follows: (1) The fundamental concepts of learning planning encompass an understanding of the necessity for learning planning, the principles and characteristics of learning planning, the benefits and functions of learning planning, the criteria for preparing lesson plans, and a systems approach to learning planning. (2) The learning planning model comprises an understanding of the model and an appreciation of the various learning planning models. (3) Learning objectives entail an understanding of their rationale. (4) Learning materials consist of understanding, types, selection criteria, material development, and material packaging. (5) Learning methods consist of understanding, selection criteria, types, and learning methods in the 2013 curriculum. The criteria for selecting and developing media, as well as the supporting factors for media development, are also addressed.

The section on learning resources covers the following topics: an understanding of the benefits of learning resources, the criteria for selecting and developing learning resources, the characteristics and classifications of learning resources, the components of learning

[13] L.W. Anderson and D.R. Krathwohl, *A Taxonomy for Learning, Teaching, and Asessing: A Revision of Bloom's Taxonomy of Educational Objectives* (New York: Addison Wesley Longman, Inc, 2001).

resources, and the selection and development criteria for learning resources.[14]

Piaget argues that since childhood, every student already has a cognitive structure called schema. Schemes are formed because of experience, and the process of perfecting the scheme is called assimilation. The more significant the growth of students, the more perfect the scheme will be, which is called the accommodation process. In line with Glasserfeld's explanation, as quoted by Komalasari,[15] is that contextual learning refers to the philosophy of constructivism. Where constructivism is a philosophy of knowledge that emphasizes that the knowledge gained is self-construction. Knowledge is not an imitation of reality (reality). Knowledge is not a picture of the existing world of reality—knowledge results from a cognitive construction that is constructed through activities carried out by students.[16] The construction process requires the following abilities: (1) the ability to remember and recount experiences, (2) the ability to compare and make decisions about similarities and differences, and (3) the ability to prefer one experience to another.

Johnson posits that contextual learning is a pedagogical approach that seeks to facilitate students' comprehension of academic material by situating it within the context of their daily lives, particularly in terms of personal, social, and cultural circumstances.[17] Contextual learning is a pedagogical approach that emphasises the active involvement of students in the learning process. This involves enabling students to locate and relate the material they are studying to real-life situations, thereby fostering their ability to apply the knowledge they have acquired in tangible, meaningful contexts. To achieve this, three key elements must be considered: (1) the process of student involvement in locating and identifying relevant material, (2) the identification of relationships between the material being

[14] Wina Sanjaya, *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan* (Jakarta: Prenada Media Group, 2014).
[15] Jean Piaget, *Antara Tindakan dan Pikiran*, trans. Agus Cremers (Jakarta: Gramedia, 2014).
[16] Kokom Komalasari, *Pembelajaran Kontekstual: Konsep Dan Aplikasi* (Bandung: Rafika Aditama, 2010).
[17] Elaine B. Johnson, *Contextual Teaching Learning* (California: Sage Publication Inc, 2002).

studied and real-life situations, and (3) the application of knowledge and skills acquired in real-life contexts.[18]

Contextual learning comprises seven principal components, which delineate the syntax or steps of contextual learning. In this instance, Daryanto elucidates the syntax of the contextual learning model as follows:[19]

1. Constructivism

Constructivist learning entails the construction of knowledge. This is achieved through the processes of assimilation and accommodation, whereby new knowledge is integrated into existing cognitive structures and existing cognitive structures are adjusted in light of new information. In a constructivist context, it is acknowledged that knowledge is structured.[20]

2. Inquiry

Inquiry represents a learning process based on search and discovery through systematic thinking. One of the key concepts in contextual learning is discovery. Discovery learning encompasses both the process and the learning outcomes. Discovery learning engages students in the entirety of the scientific method, comprising systematic steps to ascertain new knowledge or corroborate existing knowledge. Furthermore, discovery learning incorporates student learning activities into research methods, establishing an operational foundation for conducting investigations. The investigation of students not only instructs in the acquisition of diverse sources of information but also in information processing.

3. Ask

Contextual learning is developed through interactive dialogue in which questions and answers are exchanged between all members of the learning community. Questioning activities are crucial for uncovering information, confirming existing knowledge, and directing attention to areas that are not yet understood. Asking from the perspective of students is essential for elaborating their knowledge and making the knowledge gained more meaningful.

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[18] Fathor Rasyid, "Developing A Teaching-Learning Model to Enhance Autonomous PTKIN Learners," *Didaktika Religia* 9, no. 1 (June 9, 2021): 39–58, https://doi.org/10.30762/didaktika.v9i1.3057.

[19] Daryanto, *Model Pembelajaran Inovatif*, 155.

[20] A. Alenezi, "The Role of E-Learning Materials in Enhancing Teaching and Learning Behaviors," *International Journal of Information and Education Technology* 10, no. 1 (2020): 51, https://doi.org/10.18178/ijiet.2020.10.1.1338.

4. Learning Society

Contextual learning places significant emphasis on the social aspect of the learning process. Engagement with the learning community has been shown to enhance the meaningfulness of the learning experience and outcomes. The formation of collaborative and cooperative learning communities is a key aspect of this process. The practice of such communities can be observed in the formation of small groups or large groups, the invitation of external experts to the classroom, the implementation of parallel classes, the formation of groups with students at a higher academic level, and the collaboration with external community members.

5. Modeling

Contextual learning places significant emphasis on the demonstration of students' learning outcomes. Modelling, meanwhile, underscores the value of procedural knowledge. Through modelling, students can emulate the actions and processes being demonstrated.

6. Reflection

Reflection is an indispensable component of contextual learning. In this context, reflection entails a process of reflection, analysis, clarification, and evaluation of previously acquired knowledge. This reflective practice can be recommended for future endeavours that require improvement or further development in relation to the learning process and the attainment of student learning outcomes.

7. Authentic Rating

The term "authentic assessment" is used to describe an approach to the collection of data that can provide an overview of students' learning development. The data is gathered from the students' own activities as they engage in the learning process.

Furthermore, Trianto delineates the steps for implementing contextual learning as follows: Firstly, it is important to foster the understanding that students will learn more effectively by working independently, exploring their own understanding and developing their new knowledge and skills. Secondly, inquiry-based learning should be employed wherever possible. Thirdly, students' curiosity should be nurtured through the use of questions. Fourthly, student study groups can be utilised to foster a sense of community. Fifthly, the model should be presented as an exemplar of learning. Sixthly,

reflection should be encouraged at the end of each session. Finally, assessment should be conducted in a variety of formats.[21]

Contextual learning can be effectively designed with teachers assuming control of interactions and implementing research procedures. However, research standards are based on principles of cooperation, intellectual freedom, and balance, and interaction between students is also encouraged. The intellectual environment is characterised by an openness to all relevant ideas, and teachers and students should participate equally in the identification of connections between ideas.[22]

The support system for contextual learning comprises three key elements: firstly, a set of materials that can address issues related to the facts encountered in real-life situations; secondly, an educator who can comprehend the cognitive processes occurring within the minds of their students; and thirdly, research and development strategies. The source materials contain specific and unique issues.

The development of learning strategies entails a consideration of the preceding stages, with a focus on learning objectives and student characteristics. In the context of the Lesson Planning course, the development of learning strategies is evident in the following aspects: (1) the second meeting, (2) specific learning objectives, (3) the subject matter, (4) a description of learning activities, including introduction, presentation, and closing, (5) methods, (6) media and tools, and (7) time.[23]

The complete details of the learning strategies for each lecture meeting can be found in the lecturer's guide, which serves as an integral tool in developing contextual learning models based on blended learning in the Lesson Planning course.

In addition, the learning strategies employed by students are outlined as follows: a) Students must attend at least 75% of the 16 scheduled face-to-face lectures, or 12 lectures in total. In the event

[21] Al-Tabany, *Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual: Konsep, Landasan, Dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI).*
[22] Panji Setiawan and I Dewa Nyoman Sudana, "Penerapan Model Pembelajaran Kontekstual Untuk Meningkatkan Hasil Belajar Matematika," *Jurnal Ilmiah Pendidikan Profesi Guru* 1, no. 2 (December 21, 2018), https://doi.org/10.23887/jippg.v1i2.16397.
[23] Lina Agustina, "The Contribution of Islamic University Malang as Islamic Private Higher Education in Developing Islamic Civilization," *Didaktika Religia* 7, no. 1 (June 1, 2019): 24–44, https://doi.org/10.30762/didaktika.v7i1.1462.

that a student is unable to attend a class for any reason, they are required to discuss the matter in writing and present a brief paper (up to 1,000 words) to the lecturer within two weeks of the discussion of the topic in question. b) Students are expected to actively participate in lecture activities and group discussions. c) It is expected that students will not only read the provided teaching materials but also consult other sources and the internet to enhance their understanding of the subject matter. d) Students are required to take notes or prepare summaries of the key points discussed in lectures. e) Assignments are to be completed in a timely manner, individually or in groups, during lecture activities. In the event of late or non-attendance for group assignments, particularly presentations, the student in question shall be required to transfer to the subsequent group in order to receive a score for the group presentation. f) Students shall consult with the lecturer responsible for the course in question with regard to the completion of individual and group assignments. g) Students are required to take the mid-semester and end-semester examinations in accordance with a schedule determined by the faculty. Alternatively, a schedule may be agreed upon by lecturers and students, which may be conducted in class when face-to-face or outside of class.

Contextual learning is a pedagogical approach that aims to motivate students to understand the meaning of the subject matter being studied by relating the material to the context of students' lives. This enables students to develop knowledge and skills that can be flexibly applied from one context to another. Contextual learning is influenced by the philosophy of constructivism, which emphasises cognitive construction, which is constructed through activities carried out by students.[24] In order to develop the construction process experienced by students in learning, it is necessary to initiate the process of designing lectures carried out by lecturers so that lectures can run effectively, efficiently, and attractively. This can be achieved through a learning design process that is carried out systematically and systemically. This approach is supported by several experts who describe contextual learning, including Glasserfeld,[25] Johnson,[26]

[24] Sukma Nurmawarni, "Pengaruh Pendekatan Kontekstual Dalam Motivasi Belajar Siswa Sekolah Menengah Pertama," *ScienceEdu* 1, no. 1 (July 8, 2019): 44, https://doi.org/10.19184/se.v1i1.9492.

[25] Ernst von Glasersfeld, "Cognition, Construction of Knowledge, and Teaching," *Synthese* 80, no. 1 (July 1989): 121–40, https://doi.org/10.1007/BF00869951.

Blancard, Bern, and Erickson,[27] Hull's and Sounders,[28] Sanjaya,[29] Al-Tabany,[30] Suprijono,[31] and Daryanto.[32]

Several studies on contextual learning include Rahmawati and Rohim,[33] Adak,[34] Sugandi and Benard,[35] Nurmawarni,[36] Marlina,[37] and Setiawan and Sudana[38] essentially emphasize that contextual learning affects the achievement of learning outcomes. This is due to the fact that contextual learning places an emphasis on the total involvement of students in order to enable them to find the material being studied and connect it with real-life situations.

Developing Teaching Materials for Contextual-Based Learning Planning at UIN Sumatera Utara

The creation of teaching materials for contextual-based Learning Planning courses commences with the selection of learning

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[26] Johnson, *Contextual Teaching Learning*.

[27] Robert G Berns and Patricia M Erickson, "Contextual Teaching and Learning: Preparing Students for the New Economy," 2001.

[28] Daniel M Hull and John C Souders, "The Coming Challenge: Are Community Colleges Ready for the New Wave of Contextual Learners?," *Community College Journal* 67, no. 2 (1996): 15–17.

[29] Sanjaya, *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*.

[30] Al-Tabany, *Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual: Konsep, Landasan, Dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI)*.

[31] Agus Suprijono, *Cooperative Learning: Teori Dan Aplikasi Paikem* (Yogyakarta: Pustaka Pelajar, 2011).

[32] Daryanto, *Model Pembelajaran Inovatif*.

[33] Septina Rahmawati and Dhina Cahya Rohim, "Pengaruh Model Pembelajaran Kontekstual Berbasis Kearifan Lokal Terhadap Keterampilan Menyimak Siswa," *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan Dan Hasil Penelitian* 6, no. 3 (2020).

[34] Samaresh, "Effectiveness of Constructivist Approach on Academic Achievement in Science at Secondary Level."

[35] Asep Ikin Sugandi and Martin Bernard, "Penerapan Pendekatan Kontekstual Terhadap Kemampuan Pemahaman Dan Komunikasi Matematis Siswa SMP," *Jurnal Analisa* 4, no. 1 (June 12, 2018): 172–78, https://doi.org/10.15575/ja.v4i1.2364.

[36] Nurmawarni, "Pengaruh Pendekatan Kontekstual Dalam Motivasi Belajar Siswa Sekolah Menengah Pertama."

[37] Emas Marlina, "Pengembangan Model Pembelajaran Blended Learning Berbantuan Aplikasi Sevima Edlink," *Jurnal Padegogik* 3, no. 2 (July 31, 2020): 104–10, https://doi.org/10.35974/jpd.v3i2.2339.

[38] Setiawan and Sudana, "Penerapan Model Pembelajaran Kontekstual Untuk Meningkatkan Hasil Belajar Matematika."

materials from existing learning sources, which are then adapted to align with the specific requirements of the designed learning materials. In other words, the designed learning materials are a compilation of existing learning resources, namely literature related to the scientific concept of Learning Planning. The selected learning resources are, of course, adjusted to the scope of the teaching material that has been previously determined. Following the collection of learning resources for the development of learning materials, production is carried out with due consideration of the principles of accuracy and conformity with the discussion themes contained in the aforementioned learning materials. In preparing learning materials, accuracy and suitability are given priority, as the materials are intended for lecturers and students as guidelines in implementing lectures.

A critical examination of the learning requirements associated with the delivery of the existing lectures. In this case, the analysis of learning needs is to identify the discrepancy between the current state of learning and the optimal state of learning, or the state that is expected. In other words, needs analysis is the process of identifying deficiencies or shortcomings in existing conditions or circumstances, relative to desired or expected standards. Learning needs analysis is a systematic approach to identifying various learning needs that will be incorporated into the Learning Planning lectures. The objective of the needs analysis is to ensure that the learning development in the Learning Planning course aligns with the specific characteristics of educational organisations/institutions and student characteristics.

Based on the results of the learning needs analysis carried out, it can be described as follows:

1. The Learning Planning course is a professional course that must be taken by all students in the FITK UIN Sumatera Utara, which aims to provide scientific insight and carry out critical studies related to the discussion themes contained in the Lesson Planning course. The discussion themes in the Learning Planning are: understanding, the urgency of learning planning, principles and characteristics of learning planning, benefits and functions of learning planning, criteria for preparing lesson plans, and systems approach in learning planning, learning planning models, learning objectives, learning materials, learning methods, learning media, learning resources and assessment of learning outcomes.

2. The learning objectives of the courses included in the syllabus and the design of lecture activities are limited in scope. They are based on the description of the achievement of the teaching materials that students are expected to master. This suggests that the learning objectives are written with the sole intention of meeting the requirements of the material. The formulation of learning objectives has not been conducted in accordance with the scientific methodology of learning design, which entails the completion of three fundamental stages: needs analysis, learning analysis, and analysis of student characteristics and learning contexts.
3. The strategy or method employed by the lecturer in the Learning Planning course is predominantly lecture-based. The lecture method is not inherently flawed; however, its exclusive reliance on the dominant lecture method without sufficient variation and integration with other pedagogical approaches may not be optimal for effectively conveying the full scope of the lecture topic. The pervasive use of the lecture method in lectures is largely attributed to its longstanding tradition and the assumption that it is an effective means of ensuring students' comprehension of the subject matter. This reliance on lectures may, however, be a consequence of the necessity to provide detailed explanations from the lecturer to facilitate understanding.
4. Lecturers do not provide guidelines related to learning strategies that students can use as models to attend lectures and in mastering teaching materials. When this was confirmed through an interview with one of the students, it was obtained that the students assumed that the lecturer thought they could learn independently without needing guidance in carrying out lectures.
5. The lack of assessment instruments and rubrics hinders students' ability to demonstrate the required competencies for group papers. While lecturers provide guidance on technical aspects of paper writing, such as margins, fonts, and page limits, they do not offer clear criteria for assessing group performance. This lack of guidance on group assessment standards limits students' ability to showcase their proficiency in group paper writing and discussion.
6. There is a lack of assessment instruments and rubrics related to the assessment criteria for students' assignments. Instead, lecturers provide topics or themes that are students' assignments

and related guidance, such as setting margins, fonts, page limits, the minimum number of learning resources to be used in writing, and scheduling the collection of individual assignment reports.

7. There is a uniformity in the syllabus and the design of lecture activities. Upon further investigation, it became evident that this was due to a lack of coordination among the lecturers of the Learning Planning course in designing lecture activities. This lack of uniformity is evident to students from one class to another, as it suggests that the lecturers do not coordinate their efforts and proceed independently. There are multiple sections of diverse teaching materials.

The contextual learning model based on *blended learning* for the Learning Planning course is equipped with learning tools, namely model books, lecturer guidelines, student guidelines, and printed teaching materials for face-to-face and online teaching materials using the google classroom application. The device does not stand alone but is an integral part of a series of Learning Planning lectures.[39]

The process commences with an examination of the learning requirements associated with the implementation of the previously conducted lectures. In this context, the analysis of learning requirements entails the identification of discrepancies between the existing state of learning and the desired or anticipated state of learning. In other words, needs analysis involves the assessment of conditions or circumstances that are inadequate or below the desired or expected standards.[40]

A learning needs analysis is a process that identifies the various learning needs that will be implemented in Learning Planning lectures. The aim of the analysis is to obtain appropriate inputs for the development of learning in the Learning Planning course, taking into account the characteristics of educational organisations/institutions and the characteristics of students.

The technique employed to gather data at the learning needs analysis stage is through interviews and documentation. The data collection instruments utilized in the preceding data collection were

[39] Marlina, "Pengembangan Model Pembelajaran Blended Learning Berbantuan Aplikasi Sevima Edlink."

[40] Rahmawati and Rohim, "Pengaruh Model Pembelajaran Kontekstual Berbasis Kearifan Lokal Terhadap Keterampilan Menyimak Siswa."

discussed and reviewed with the promoter, expert, and course supervisor.[41]

The findings of the expert team's deliberations and analysis of the instruments utilized in the acquisition of learning need analysis data are as follows: (1) the substance aspect pertains to the extracted information and data, and (2) the linguistic aspect encompasses the refinement of language conventions within the instrument and the optimization of meaningful vocabulary, along with the effective utilization of sentences.

Furthermore, related learning strategies from the perspective of students it is described as follows:

1. It is expected that students will attend at least 75% of the 16 scheduled face-to-face lectures. This equates to 12 meetings. In the event that a student is unable to attend a lecture for any reason, they are required to discuss the matter in writing and present a short paper (maximum 1000 words) to the lecturer within two weeks of the scheduled lecture.
2. Students engage actively in both lecture-based activities and group discussions, which are formed as part of the lecture programme.
3. It is expected that students will not only read and study the provided teaching materials, but also consult additional sources, including the internet, in order to enhance their scientific understanding.
4. Students are required to record the key points from the lecture in the form of a resume or note-taking exercise.
5. It is expected that all students will complete their assignments in a timely manner, both individually and in groups. In the event that a student is absent or late for a group assignment, particularly in the case of a presentation, they will be required to move to the next group in order to receive a group presentation score.
6. Students engage in consultation with lecturers who provide guidance on the completion of both individual and group assignments.

The technique employed to gather data at the learning needs analysis stage is through interviews and the examination of relevant documentation. The data collection instruments employed in the

[41] Barbara Seels and Rita Richey, *Instructional Technology: The Definition and Domains of The Field*, trans. Dewi S Prawiradilaga (Jakarta: Universitas Negeri Jakarta, 1994).

preceding data collection phase were subjected to discussion and review with the promoter, expert team, and course supervisor team. The teaching materials for the Learning Planning course are designed for use in both face-to-face and online lectures. Consequently, the learning materials are created with a high degree of detail, with the objective of enabling students to utilise them effectively and to achieve the learning outcomes set by the lecturer. These learning materials are intended to facilitate the delivery of lectures on Learning Planning by lecturers.[42]

The components contained in the teaching materials for the Lesson Planning course are as follows: (1) learning objectives, (2) learning materials, (3) summaries, (4) reading materials, and (5) exercises.

Recapitulation of the feasibility of teaching materials Contextual -based Learning Planning courses are listed in Table 1 below:

Table 1. Expert Eligibility Recapitulation of Textbooks Lesson Planning Course

No	Expert	Score
1	Learning Design	3.70
2	Theory	2.97
3	Media	3.52
Average		**3.39**

As illustrated in Table 1, the assessment of the feasibility of teaching materials for Contextual-based Learning Planning courses by experts yielded an average score of 3.39, indicating that the materials were deemed appropriate without the need for revision. The results of individual trials on Contextual-based Learning Planning course materials are presented in Table 2 below:

Table 2. Individual Trial Results Against Textbooks Lesson Planning Course

No	Assessment Aspect	Score
1	Material Clarity	3.33
2	Display Attractiveness	3.28

[42] Sugandi and Bernard, "Penerapan Pendekatan Kontekstual Terhadap Kemampuan Pemahaman Dan Komunikasi Matematis Siswa SMP."

3	Graphics	3.53
4	Usefulness	3.33
5	Language Clarity	4.00
Average		**3.49**

As illustrated in Table 2, the results of individual trials on the product of teaching materials for contextual-based learning planning courses yielded an average score of 3.49, falling within the feasible category without the need for revision.

The results of small group trials on textbooks for teaching materials for Contextual -based Learning Planning courses can be seen in Table 3 below:

Table 3. Small Group Trial Results Against Textbooks Lesson Planning Course

No	Assessment Aspect	Score
1	Material Clarity	3.40
2	Display Attractiveness	3.50
3	Graphics	3.40
4	Usefulness	3.35
5	Language Clarity	3.40
Average		**3.41**

Referring to Table 3, it can be seen that the results of small group trials on textbooks for teaching materials for contextual-based Learning Planning courses obtained an average score of 3.41 with a decent category without revision.

The results of field group trials on textbooks for teaching materials for Contextual -based Learning Planning courses can be seen in Table 4 below:

Table 4. Field Group Trial Results on Textbooks Lesson Planning Course

No	Assessment Aspect	Score
1	Material Clarity	3.35
2	Display Attractiveness	3.40
3	Graphics	3.40

4	Usefulness	3.45
5	Language Clarity	3.50
Average		**3.42**

Referring to Table 4, it can be seen that the results of field group trials on textbook products for contextual-based Learning Planning courses obtained an average score of 3.42 with a feasible category without revision.

The efficacy of the textbook products utilized in the Contextual-Based Learning Planning subject is evaluated through the application of the Normalized Gain (N-Gain) methodology. In this instance, the calculated N-Gain value is 0.40, which falls within the medium range. This suggests that the contextual learning model, based on a *blended learning* approach, has the potential to enhance learning outcomes. The student's performance can be described as moderate.

The findings of this study commenced with an analysis of the expert assessment of the contextual-based teaching material for the Learning Planning subject that the researcher developed. The cumulative score was 3.39, categorised as satisfactory without revision. This indicates that the textbooks have been developed to reflect a feasible level of usability, while incorporating suggestions for improvement submitted by experts.

The suggestions put forth by experts on contextual learning model textbooks based on blended learning are outlined as follows: It is recommended that learning objectives be developed with the inclusion of the following elements: (1) A, B, C, D; (2) A comprehensive table of contents; (3) A focus on technical details; (4) The creation of a competency chart based on learning analysis; (5) The use of precise vocabulary and sentence structure; (6) The scope of the teaching material. (7) It is essential to pay attention to the systematic organisation of content in textbook chapters. (8) The inclusion of appropriate reference sources is crucial. (9) It is vital to ensure consistency in writing between discussion chapters. (10) Writing arrangements and techniques must be given due attention. (11) The use of colour display for each icon in the chapter is recommended to enhance contrast.

Textbooks are designed as printed materials in the form of a series of written works. It is therefore essential that textbooks are

written in accordance with the established language rules and readability levels that are conducive to comprehension and capture students' attention, given the individual characteristics that distinguish each student. This is corroborated by Seels and Richey (1994), who posit that students' background experiences shape the efficacy of the learning process.[43]

The use of sophisticated textbooks fosters a sense of vibrancy and dynamism among students. In particular, students engage in classroom-based learning and pursue further educational opportunities outside the classroom, utilising a diverse range of resources at their disposal at any given moment. Such evidence of learning demonstrates that students possess both interest and motivation, and are willing to exert considerable effort in order to gain knowledge and develop their abilities. This suggests that learning activities encourage active learning among students.

The efficacy of the textbook products in facilitating Contextual-Based Learning Planning courses is evidenced by the outcomes of the N-Gain assessment. In this instance, the N-Gain coefficient is 0.40, which is indicative of a medium level of effectiveness. In light of the preceding discussion, the criteria for the acceptance of the level of effectiveness of textbooks as teaching materials for Contextual-Based Learning Planning courses are as follows: if the results of the N-Gain count are at 0.30 or above in the medium category. It can thus be concluded that the effectiveness of the teaching materials for contextual-based Learning Planning courses in improving student learning outcomes is moderate.

The accessibility of developed textbook products, which are printed learning resources designed for use in the Lesson Planning course, is a pivotal element in determining the efficacy of the blended learning-based contextual learning model. In relation to this planned learning resource (by design), the Association for Educational Communications and Technology (AECT) delineates that learning resources can be classified into two categories: (1) planned learning resources (by design), which encompass all learning resources that have been meticulously crafted as integral components of an instructional system to facilitate targeted and formal learning experiences; and (2) learning resources because they are utilized (by utilisation), which includes sources that are not explicitly designed for

[43] Seels and Richey, *Instructional Technology: The Definition and Domains of The Field.*

learning purposes but can be identified, applied, and utilised for learning purposes.

Conclusion

The contextual learning model, based on blended learning, for the Learning Planning course was developed in accordance with the following stages: needs analysis, design, evaluation, and trial. The resulting syntax of learning models and learning tools, in the form of model books, lecturer manuals, student manuals, and textbooks, has been validated by experts and demonstrates a high level of feasibility for use in learning activities for the Lesson Planning course. The contextual learning model based on blended learning for the Lesson Planning course has been demonstrated to be an effective learning tool. The efficacy of the learning model in enhancing outcomes is substantiated by statistical analysis, which reveals that the price t-count (4.33) exceeds the t-table (1.998). It can thus be concluded that the learning model is an effective instrument for achieving enhanced outcomes. In order to develop the same product for other subjects, particularly in the area of teaching materials design, it is recommended that lecturers and other developers make appropriate adjustments to the learning design by analysing learning needs, student characteristics and context.

References

Adeel, Ahsan, Mandar Gogate, and Amir Hussain. "Contextual Deep Learning-Based Audio-Visual Switching for Speech Enhancement in Real-World Environments." *Information Fusion* 59 (July 1, 2020): 163–70. https://doi.org/10.1016/j.inffus.2019.08.008.

Agustina, Lina. "The Contribution of Islamic University Malang as Islamic Private Higher Education in Developing Islamic Civilization." *Didaktika Religia* 7, no. 1 (June 1, 2019): 24–44. https://doi.org/10.30762/didaktika.v7i1.1462.

Al-Tabany, Trianto Ibnu Badar. *Mendesain Model Pembelajaran Inovatif, Progresif, dan Kontekstual: Konsep, Landasan, dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI)*. Jakarta: Prenada Media Group, 2014.

Anderson, L.W., and D.R. Krathwohl. *A Taxonomy for Learning, Teaching, and Asessing: A Revision of Bloom's Taxonomy of*

Educational Objectives. New York: Addison Wesley Longman, Inc, 2001.

Berns, Robert G, and Patricia M Erickson. "Contextual Teaching and Learning: Preparing Students for the New Economy," 2001.

Colognesi, Stéphane, Agnès Deprit, Thibault Coppe, Catherine Van Nieuwenhoven, Virginie März, and Vanessa Hanin. "Developing Student Teachers' Reflexivity Toward Their Course Planning: Implementation of a Training Program Focused on Writing and Reflective Skills." *Sage Open* 11, no. 2 (April 1, 2021): 21582440211016897. https://doi.org/10.1177/21582440211016897.

Daryanto. *Model Pembelajaran Inovatif*. Yogyakarta: Gava Media, 2012.

Glasersfeld, Ernst von. "Cognition, Construction of Knowledge, and Teaching." *Synthese* 80, no. 1 (July 1989): 121–40. https://doi.org/10.1007/BF00869951.

Hull, Daniel M, and John C Souders. "The Coming Challenge: Are Community Colleges Ready for the New Wave of Contextual Learners?" *Community College Journal* 67, no. 2 (1996): 15–17.

Hung, Y.-H., C.-H. Chen, and S.-W. Huang. "Applying Augmented Reality to Enhance Learning: A Study of Different Teaching Materials." *Journal of Computer Assisted Learning* 33, no. 3 (2017): 252–66. https://doi.org/10.1111/jcal.12173.

Johnson, Elaine B. *Contextual Teaching Learning*. California: Sage Publication Inc, 2002.

Komalasari, Kokom. *Pembelajaran Kontekstual: Konsep dan Aplikasi*. Bandung: Rafika Aditama, 2010.

Marlina, Emas. "Pengembangan Model Pembelajaran Blended Learning Berbantuan Aplikasi Sevima Edlink." *Jurnal Padegogik* 3, no. 2 (July 31, 2020): 104–10. https://doi.org/10.35974/jpd.v3i2.2339.

Matovu, Henry, Dewi Ayu Kencana Ungu, Mihye Won, Chin-Chung Tsai, David F. Treagust, Mauro Mocerino, and Roy Tasker. "Immersive Virtual Reality for Science Learning: Design, Implementation, and Evaluation." *Studies in Science Education* 59, no. 2 (July 3, 2023): 205–44. https://doi.org/10.1080/03057267.2022.2082680.

Nawas, Abu. "Contextual Teaching And Learning (CTL) Approach Through React Strategies On Improving The Students'

Critical Thinking In Writing." *International Journal of Management and Applied Science* 4, no. 7 (2018).

Northern Border University, Saudi Arabia, and A. Alenezi. "The Role of E-Learning Materials in Enhancing Teaching and Learning Behaviors." *International Journal of Information and Education Technology* 10, no. 1 (2020): 48–56. https://doi.org/10.18178/ijiet.2020.10.1.1338.

Nurmawarni, Sukma. "Pengaruh Pendekatan Kontekstual Dalam Motivasi Belajar Siswa Sekolah Menengah Pertama." *ScienceEdu* 1, no. 1 (July 8, 2019): 44. https://doi.org/10.19184/se.v1i1.9492.

Piaget, Jean. *Antara Tindakan dan Pikiran*. Translated by Agus Cremers. Jakarta: Gramedia, 2014.

Rahmawati, Septina, and Dhina Cahya Rohim. "Pengaruh Model Pembelajaran Kontekstual Berbasis Kearifan Lokal Terhadap Keterampilan Menyimak Siswa." *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan dan Hasil Penelitian* 6, no. 3 (2020).

Rasyid, Fathor. "Developing A Teaching-Learning Model To Enhance Autonomous PTKIN Learners." *Didaktika Religia* 9, no. 1 (June 9, 2021): 39–58. https://doi.org/10.30762/didaktika.v9i1.3057.

Sadiman, Arief S., trans. *Association for Educational Communication and Technology. The Definition of Educational Terminology*. Jakarta: Rajawali Press, 1986.

Sailer, Michael, Florian Schultz-Pernice, and Frank Fischer. "Contextual Facilitators for Learning Activities Involving Technology in Higher Education: The Cb-Model." *Computers in Human Behavior* 121 (August 1, 2021): 106794. https://doi.org/10.1016/j.chb.2021.106794.

Samaresh, Adak. "Effectiveness of Constructivist Approach on Academic Achievement in Science at Secondary Level." *ERIC: Academic Journals Educational Research and Reviews* 12, no. 22 (2017).

Sanjaya, Wina. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Prenada Media Group, 2014.

Seels, Barbara, and Rita Richey. *Instructional Technology: The Definition and Domains of The Field*. Translated by Dewi S Prawiradilaga. Jakarta: Universitas Negeri Jakarta, 1994.

Setiawan, Panji, and I Dewa Nyoman Sudana. "Penerapan Model Pembelajaran Kontekstual Untuk Meningkatkan Hasil Belajar Matematika." *Jurnal Ilmiah Pendidikan Profesi Guru* 1, no. 2 (December 21, 2018). https://doi.org/10.23887/jippg.v1i2.16397.

Sugandi, Asep Ikin, and Martin Bernard. "Penerapan Pendekatan Kontekstual Terhadap Kemampuan Pemahaman dan Komunikasi Matematis Siswa SMP." *Jurnal Analisa* 4, no. 1 (June 12, 2018): 172–78. https://doi.org/10.15575/ja.v4i1.2364.

Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2011.

Suprijono, Agus. *Cooperative Learning: Teori Dan Aplikasi Paikem*. Yogyakarta: Pustaka Pelajar, 2011.

Suryawati, Evi, and Kamisah Osman. "Contextual Learning: Innovative Approach towards the Development of Students' Scientific Attitude and Natural Science Performance." *Eurasia Journal of Mathematics, Science and Technology Education* 14, no. 1 (October 27, 2017): 61–76. https://doi.org/10.12973/ejmste/79329.

Tsani, Iskandar, Nifa Khoirul Miftah, and Noer Hidayah. "Evaluation of Character Education Strengthening Program at SMA Negeri 2 Kediri." *Didaktika Religia* 7, no. 2 (December 14, 2019): 187–206. https://doi.org/10.30762/didaktika.v7i2.2174.

Widyaningsih, Sri Wahyu, and Irfan Yusuf. "Implementation of Project-Based Learning (PjBL) Assisted by E-Learning through Lesson Study Activities to Improve the Quality of Learning in Physics Learning Planning Courses." *International Journal of Higher Education* 9, no. 1 (December 23, 2019): 60. https://doi.org/10.5430/ijhe.v9n1p60.