# DEVELOPMENT OF CONTEXTUAL-BASED TEACHING MATERIALS PLANNING COURSE AT UIN SUMATERA UTARA, MEDAN

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Abstract: Based on the need for teaching materials designed to meet learning needs, this study aims to analyze the feasibility of teaching materials for the Learning Planning course and the effectiveness of teaching materials for the Learning Planning course. The research method used is development research. Experts validated the teaching materials developed, then continued by individual tests, small group tests, and field groups. Testing the effectiveness of the learning model is done by testing the t-test statistics. The research findings are: first, the teaching materials for the Contextual-Based Learning Planning course show the feasibility level for use in learning activities for the Learning Planning course. Second, the learning Planning course's teaching materials are proven effective for use in learning. The results of statistical testing that the calculated price (5.34)> t table (1.99) proved it, so 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 use of information and communication technology in implementing higher education is essential because of the dynamics and flexibility of contemporary developments surrounding the university. This use is related to the growth and development of higher education institutions that cannot be separated from internal and external factors. Internal factors are related to the dynamics and flexibility of the higher education institution. In comparison, external factors are related to the dynamics and flexibility of developments that occur outside the higher education institution but impact, the higher education institution. In addition, realizing the implementation of education in an institution can encourage the nation's progress. This implementation is inevitable that there will be a need to organize learning

<sup>1</sup> 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).

based on information and communication technology. Especially now that science, technology, and art are developing and disseminated through information and communication technology. This higher education institution wants to develop and continue to exist. There is no other choice apart from having to participate in utilizing information and communication technology, both as a source of learning and only used as a tool to help carry out administrative tasks.<sup>2</sup>

Overcoming the problems of equity, relevance, and education governance in Indonesia is the intention of using information and communication technology in learning. This implementation is in line 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 superior faculty in developing education. Integrated Islam at the national level to realize a learning society by 2025. This vision will not be achieved if the entire academic community does not improve themselves in improving the quality of their education, including using information and communication technology in lectures and managing institutions.

Observing the vision of FITK UIN Sumatera Utara Medan, one of the efforts to improve output quality, relevance, and competitiveness is using information and communication technology. FITK UIN Sumatera Utara Medan has initiated this by developing various programs, primarily related to information and communication technology-based learning facilities, including creating internet networks within the Faculty that are easily accessible by lecturers and students and designing various portal applications for students and lecturers.

The use of information and communication technology in the practical dimension, especially among lecturers and students, influences were changing the mindset and action patterns of lecturers and students in the implementation of course learning which leads to the expectations and demands of the lecture process they experience. In general, students are expected to be professional people to be able to work when they graduate from college; they also can choose how and what to learn and when they learn it. The development of information and communication technology has also opened up opportunities and encouraged a revolution in how

<sup>&</sup>lt;sup>2</sup> 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).

students learn, lecturers teach, and how information is conveyed, including in the world of education.<sup>3</sup>

Many education experts have developed various learning models based on information and communication technology in collaboration with information and communication technology experts. Various learning models based on information and communication technology were born, such as e-learning, web-based, online, distance, and blended learning. The current trend is that many lectures are carried out using blended learning, namely learning that combines face-to-face activities in class with online learning, especially during the COVID-19 pandemic.

FITK UIN Sumatera Utara recognizes the current conditions surrounding the learning system. FITK UIN Sumatera Utara, one of the State Universities in the city of Medan, has received an expanded mandate to manage educational programs. The programs are not only in religious studies but currently have programs in General education, including Mathematics Education, English Education, Indonesian Language Education, Social Science Education, Biology Education, Education Management, Counseling Guidance, and Early Childhood Education. Expanding the mandate is expected to improve the quality and, at the same time, strengthen FITK UIN Sumatera Utara in providing education that prepares prospective educators and staff.

The expansion of this mandate emphasizes the mission of FITK UIN Sumatera Utara to become a superior faculty in the field of education, which is outlined as follows. First, organizes integrated Islamic higher education at the undergraduate, postgraduate, and doctoral levels in the intellectual life of the people and nation. Second, develops study programs that excel in the field of teacher education, and Islam to improve quality human resources. Third, carry out effective, quality and competitive professional education for teachers and counselors. Fourth, carry out research in the development of science and technology based on education and Islam. Fifth, carry out community service in accelerating the progress of national education based on national education management standards. And sixth, carry out professional training of teachers and education personnel in meeting national education standards.

Various efforts are carried out to realize the mission of FITK UIN Sumatera Utara, especially in improving human resources performance. So that they can provide and meet the demands of community needs, especially in providing quality services to students. Specifically related to improving the

<sup>&</sup>lt;sup>3</sup> 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.

quality of learning, it can be started from the learning design. By considering the conditions and choosing the right strategy, well-designed learning will improve the quality of learning and, by itself, improve student learning outcomes. This act means that improving learning outcomes must begin with improving the quality of learning designs.

Learning Planning courses conducted so far are still limited to faceto-face, dominated by lecture and discussion methods, and learning is still a transfer of knowledge process. He verbalizes in nature and tends to rely on the lecturers' interests rather than the students' needs. <sup>4</sup>The tendency of lecturers to choose and use face-to-face learning methods in the form of lectures and discussions resulted in the learning activities of the Lesson Planning courses being less attractive, boring, not challenging, and not based on problemsolving so that they did not attract students' interest in learning. addition, if it is observed from the overall learning outcomes of the Learning Planning courses of FITK UIN Sumatera Utara students, in this case, the achievement of student learning outcomes has not fully achieved the expected competencies. Identification and analysis of student behavior and characteristics is to see the behaviors mastered by students before attending Planning lectures. This essential factor that becomes the attention of the course supervisor in carrying out learning is the student's characteristics, in this case, seen from motivation, educational background, socio-economic, age, level of intelligence, learning style, and cognitive style.

The factor that encourages students to choose this Learning Planning course is the obligation to attend lectures because this Learning Planning course is a compulsory subject to be taken by all students because this course is a professional course at the Faculty of Tarbiyah and Teacher Training UIN Sumatera. Furthermore, the characteristics of the students of the Islamic Religious Education Study Program FITK UIN Sumatera Utara are the majority of the educational background of madrasah aliyah, Islamic boarding schools, and high schools. Of course, with this educational background, students are expected to be able to master the concepts in education that they have learned while studying at madrasas and Islamic boarding schools. Related to the socio-economic and age of students, this characteristic is not an excessive concern because it tends to be individual who is not too directly related to learning and learning materials for Lesson Planning courses. Furthermore, related to the level of intelligence of students who are different due to differences in *intelligence quotient* (IQ), it is necessary

<sup>&</sup>lt;sup>4</sup> Arief S. Sadiman, trans., Association for Educational Communication and Technology. The Definition of Educational Terminology (Jakarta: Rajawali Press, 1986).

to get the attention and treatment given by the instructor of the Learning Planning course by providing freedom and intensive learning control.

Several research results show that the learning styles and cognitive styles inherent in students influence the achievement of learning outcomes. For this reason, the instructor of the Learning Planning course should be able to know the cognitive style of the student. After it is known, the treatment in learning can be carried out and directed at the student's analytical ability adapted to different learning and cognitive styles. <sup>5</sup>In this case, student learning styles include visual, auditory, and kinesthetic learning styles. At the same time, the cognitive style includes *field-dependent* and *field-independent*.

Furthermore, the learning context analysis is related to the process that covers the planning and implementation of learning. Learning planning itself starts from planning and implementing strategies or methods, using media, learning resources, and assessments that can encourage the creation of quality learning. The availability of learning materials along with the developed lecturer guidelines and student guidelines can facilitate lecturers and students in carrying out lectures in a more planned, organized, and systematic way so that it is expected to have an impact on the creation of quality Learning Planning learning as expected.<sup>6</sup>

In particular, the facts related to the implementation of the learning planning courses that have been carried out at the FITK UIN Sumatera Utara. First, the study program in the FITK UIN Sumatera Utara environment. It is not the same as determining the time of giving the lesson planning course. Some study programs put it in the odd semester I and some in the even semester. When this matter was explored further, it was explained that this was done based on the distribution of teaching assignments for the lecturers of the Lesson Planning course. Second, there was no uniformity in the semester course plans that contained the syllabus, teaching materials and learning resources from the lecturers of the Lesson Planning course. When explored further, this happened because the lecturers of the Learning Planning course did not coordinate with each other in making the semester program plan.

Third, there were no learning tools designed by the instructor of the Learning Planning course, such as learning materials, lecturer guidelines, and guidelines. Lecturers carry out lecture activities only by providing a syllabus containing discussion topics to students. And fourth, the lectures developed

<sup>&</sup>lt;sup>5</sup> 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).

<sup>&</sup>lt;sup>6</sup> Daryanto, Model Pembelajaran Inovatif (Yogyakarta: Gava Media, 2012).

so far are based on a needs analysis approach that is still and continues to be perfected due to the dynamics and flexibility surrounding it. For this reason, based on the facts of the implementation of learning in the lesson planning course, it is necessary to develop lectures based on the identification of needs, design development to an evaluation system that needs to be addressed and carried out appropriately following the scientific methodology of learning design, so that the implementation of learning can be carried out optimally and achieve results.

Observing some of the things above, this research focuses on developing contextual-based teaching materials. This research requires efforts to improve learning outcomes, including using learning models. The learning model that can be used in this case is contextual learning. The contextual learning model is a learning model that emphasizes the process of full student involvement to be able to find the material being studied and relate it to real-life situations to encourage students to be able to apply it 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.<sup>7</sup> This research is used in developing a contextual learning model. This development research aims to develop contextual-based teaching materials for Learning Planning courses. The research was carried out 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 a course that equips students with knowledge and skills in planning and designing lessons. This Learning Planning course examines the basic concepts of learning planning, including 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 approaches in lesson planning, learning planning models, learning objectives, learning materials, learning methods, learning media, learning resources and assessment of learning outcomes. Anderson and Krarthwohl revised Bloom by dividing two dimensions, namely the dimensions of knowledge and factual knowledge, which consist of terminology knowledge and specific knowledge, conceptual knowledge (knowledge of classification and categories, knowledge of principles and

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 $<sup>^7</sup>$  Sugiyono, Metode Penelitian Kuantitatif, Kualitatif, Dan R&D (Bandung: Alfabeta, 2011).

generalizations, knowledge of theories, models and structures), procedural knowledge (knowledge of specific skills, knowledge of specific techniques, methods), metacognitive knowledge (strategic knowledge, knowledge of cognitive tasks, self-knowledge). The cognitive dimension is divided into six levels: remembering, understanding, applying, analyzing, evaluating, and creating.<sup>8</sup>

The expected achievements from the implementation of this Learning Planning course are as follows. First, they could 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. Under their field of expertise, compiling scientific conceptions and study results based on scientific principles, procedures, and ethics. Second, they could be able to identify the scientific field that is the object of research and positioning it into developed research. And third, they could 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.

To achieve these objectives, the details of the learning materials in the Lesson Planning course are described as follows: (1) the basic concepts of learning planning consist of understanding, 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, (2) learning planning model consists of understanding the model and various learning planning models, (3) learning objectives consist of understanding, rationality, benefits, taxonomy and formulation of learning objectives, (4) learning materials consist of understanding, types, selection criteria, material development, material packaging, (5) learning methods consist of understanding, selection criteria, types and learning methods in the 2013 curriculum, (6) learning media consists of understanding, functions and benefits, characteristic, clasification, media selection and development criteria and supporting factors for media development, (7) learning resources consist of understanding, benefits, criteria, characteristics and classifications, learning resource components and selection and development criteria, and (8) assessment of learning outcomes consisting of understanding, objectives, functions and benefits, principles of assessment, assessment and assessment techniques in the 2013 curriculum.9

<sup>&</sup>lt;sup>8</sup> 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).

<sup>&</sup>lt;sup>9</sup> Wina Sanjaya, Strategi Pembelajaran Berorientasi Standar Proses Pendidikan (Jakarta: Prenada Media Group, 2014).

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, <sup>10</sup> 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. 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 explains contextual learning is a learning process that aims to help students see the meaning of the academic material they are learning by connecting academic subjects with the context of their daily lives, namely those related to the context of personal, social, and cultural circumstances. Contextual learning emphasizes the process of total involvement of students to be able to find the material being studied and relate it to real-life situations to encourage students to be able to apply it. Three things must be understood, namely: (1) emphasizing the process of student involvement in finding material, (2) encouraging students to find the relationship between the material being studied and real-life situations, and (3) encouraging students to be able to apply the knowledge acquired in life. Contextual learning process that aims to help students academic material they are learning by context of their daily lives, namely the students are learning by context and cultural circumstances. Contextual learning emphasizes the process of total involvement of students to encourage students to be able to apply it.

Contextual learning has seven main components which describe the syntax or steps of contextual learning. In this case, Daryanto explains the syntax of the contextual learning model as follows:<sup>14</sup>

## 1. Constructivism

Learning based on constructivism is constructing knowledge. Knowledge is built through assimilation and accommodation, integrating new knowledge into existing cognitive structures, and adjusting cognitive structures with new information. Learning in a constructivist context departs from the fact that knowledge is structured.

<sup>14</sup> Daryanto, Model Pembelajaran Inovatif, 155.

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<sup>&</sup>lt;sup>10</sup> Jean Piaget, Antara Tindakan Dan Pikiran, trans. Agus Cremers (Jakarta: Gramedia, 2014).

<sup>&</sup>lt;sup>11</sup> Kokom Komalasari, Pembelajaran Kontekstual: Konsep Dan Aplikasi (Bandung: Rafika Aditama, 2010).

<sup>&</sup>lt;sup>12</sup> Elaine B. Johnson, Contextual Teaching Learning (California: Sage Publication Inc, 2002).

 $<sup>^{\</sup>rm 13}$  Fathor Rasyid, "Developing A Teaching-Learning Model To Enhance Autonomous PTKIN Learners,"  $\it Didaktika$   $\it Religia$  9, no. 1 (June 9, 2021): 39–58, https://doi.org/10.30762/didaktika.v9i1.3057.

## 2. Inquiry

Inquiry means the learning process is based on search and discovery through systematic thinking. One of the keywords in contextual learning is discovery. Discovery learning refers to the process and learning outcomes. Discovery learning involves students in the whole process of the scientific method as systemic steps to discover new knowledge or verify old knowledge. In addition, discovery learning integrates student learning activities into research methods as an operational basis for conducting investigations. Investigation of students not only teaches to obtain various sources of information but also information processing.

#### 3. Ask

Contextual learning is built through interactive dialogue through questions and answers by all elements involved in the learning community. Questioning activities are essential for digging up information, confirming what is already known, and directing attention to aspects that are not yet known. Asking from students' perspectives is essential to elaborate their knowledge to make the knowledge gained more meaningful.

## 4. Learning Society

Contextual learning emphasizes the importance of learning as a social process. Interaction with the learning community makes the learning process and results more meaningful. Learning outcomes are obtained from collaborating and cooperating. The learning community's practice is manifested in forming small groups/large groups, bringing in class experts, working with parallel classes, working in groups with the class above it, and collaborating with the community.

## 5. Modeling

Contextual learning emphasizes the importance of demonstrating what students learn. Modeling focuses on the importance of procedural knowledge. Through modeling, students can imitate the thing being modeled.

## 6. Reflection

Reflection is an essential part of the implementation of contextual learning. In this case, reflection is an effort to look back, reanalyze, re-clarify, and evaluate things that have been learned. This reflection activity can be recommended in the future things that need to be improved or further leveled related to the learning process and the achievement of student learning outcomes.

## 7. Authentic Rating

Authentic assessment is an effort to collect various data that can provide an overview of students' learning development. Data is collected from actual activities that students do when they are learning.

Furthermore, Trianto explains the steps for implementing contextual learning as follows. First, develop the idea that students will learn more meaningfully by working alone, discovering themselves, and constructing their new knowledge and skills. Second, carry out as far as possible inquiry activities for all topics. Third, develop students' curiosity by asking questions. Fourth, create a learning community through student study groups. Fifth, present the model as an example of learning. Sixth, reflect at the end of the meeting. And seventh, do the actual assessment in various ways.<sup>15</sup>

Contextual learning can be well designed with teachers controlling interactions and implementing research procedures. However, research standards are cooperation, intellectual freedom, and balance, and interaction between students is also encouraged. The intellectual environment is open to all relevant ideas, and teachers and students should participate equally in which ideas can be connected.<sup>16</sup>

The support system in applying contextual learning is a set of materials that can confront problems related to the facts found in the field of life, a teacher who can understand the intellectual processes that occur in students, and research and development strategies. Source materials that contain specific unique issues.

Developing learning strategies refers to the previous stages by paying attention to learning objectives and student characteristics. In this case, the development of learning strategies in the implementation of learning for the Lesson Planning course, namely: (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.<sup>17</sup>

Complete details of the learning strategies for each lecture meeting can be seen in the lecturer's guide as an integral tool in developing contextual learning models based on blended learning in the Lesson Planning course.

Furthermore, related to learning strategies from the perspective of students, they are described: a) Students meet the demands of attendance in lecture activities in at least 75% of 16 face-to-face meetings, namely 12 meetings. If for any reason forced not to be able to follow a subject in class,

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<sup>&</sup>lt;sup>15</sup> Al-Tabany, Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual: Konsep, Landasan, Dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI).

<sup>&</sup>lt;sup>16</sup> 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.

<sup>&</sup>lt;sup>17</sup> 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.

the student concerned must discuss it himself in writing and present it in the form of a short paper (maximum 1000 words) and submitted to the lecturer no later than two weeks after the discussion of the topic in question. b) Students actively participate in lecture activities and group discussion activities formed in lectures. c) Students are expected not only to read/study these teaching materials but also to read other reading sources and from the internet as an enrichment of scientific insight. d) Students make notes/resumes as essential points on the topics discussed in the lecture. e) Complete assignments are given promptly, individually, and in groups during Especially for group assignments, especially lecture activities. presentations, if they are late or absent, the student concerned must move and become a member of the next group to get group presentation scores. f) Students consult with the lecturer in charge of courses related to the completion of individual assignments and group assignments. g) Students take the mid-semester and end-semester examinations according to a schedule determined by the Faculty, or a schedule can be made based on an agreement between lecturers and students whether it is carried out in class when face to face or outside in class.

Contextual learning aims to motivate students to understand the meaning of the subject matter being studied by relating the material to the context of students' lives so that students know/skills that can be flexibly applied from one context to another. Contextual learning is influenced by the philosophy of constructivism which emphasizes cognitive construction, which is constructed through activities carried out by students. To develop the construction process experienced by students in learning, the process of designing lectures carried out by lecturers so that lectures can run effectively, efficiently, and attractively must be started through a learning design process that is carried out systematically and systemically. This can be seen from several experts who describe contextual learning, including Glasserfeld, 19

<sup>&</sup>lt;sup>18</sup> 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.

 $<sup>^{19}</sup>$  Ernst von Glasersfeld, "Cognition, Construction of Knowledge, and Teaching," Synthese 80, no. 1 (July 1989): 121–40, https://doi.org/10.1007/BF00869951.

Johnson,<sup>20</sup> Blancard, Bern, and Erickson,<sup>21</sup> Hull's and Sounders,<sup>22</sup> Sanjaya,<sup>23</sup> Al-Tabany,<sup>24</sup> Suprijono,<sup>25</sup> and Daryanto.<sup>26</sup>

Several studies on contextual learning include Rahmawati and Rohim,<sup>27</sup> Adak,<sup>28</sup> Sugandi and Benard,<sup>29</sup> Nurmawarni,<sup>30</sup> Marlina,<sup>31</sup> and Setiawan and Sudana<sup>32</sup> essentially emphasize that contextual learning affects the achievement of learning outcomes, this happens because contextual learning emphasizes the process of total involvement of students to be able 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 development of teaching materials for contextual-based Learning Planning courses begins with selecting learning materials from existing learning sources tailored to the needs of developing 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. After the learning resources are collected as material for the development of learning materials, production is carried out by taking into account the principles of accuracy and conformity with the discussion

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<sup>&</sup>lt;sup>20</sup> Johnson, Contextual Teaching Learning.

<sup>&</sup>lt;sup>21</sup> Robert G Berns and Patricia M Erickson, "Contextual Teaching and Learning: Preparing Students for the New Economy," 2001.

<sup>&</sup>lt;sup>22</sup> 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.

<sup>&</sup>lt;sup>23</sup> Sanjaya, Strategi Pembelajaran Berorientasi Standar Proses Pendidikan.

<sup>&</sup>lt;sup>24</sup> Al-Tabany, Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual: Konsep, Landasan, Dan Implementasinya Pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI).

<sup>&</sup>lt;sup>25</sup> Agus Suprijono, Cooperative Learning: Teori Dan Aplikasi Paikem (Yogyakarta: Pustaka Pelajar, 2011).

<sup>&</sup>lt;sup>26</sup> Daryanto, Model Pembelajaran Inovatif.

<sup>&</sup>lt;sup>27</sup> 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).

 $<sup>^{28}</sup>$  Samaresh, "Effectiveness of Constructivist Approach on Academic Achievement in Science at Secondary Level."

<sup>&</sup>lt;sup>29</sup> 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.

 $<sup>^{30}</sup>$  Nurmawarni, "Pengaruh Pendekatan Kontekstual Dalam Motivasi Belajar Siswa Sekolah Menengah Pertama."

 $<sup>^{31}</sup>$ 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.

<sup>32</sup> Setiawan and Sudana, "Penerapan Model Pembelajaran Kontekstual Untuk Meningkatkan Hasil Belajar Matematika."

themes contained in the development of learning materials. Accuracy and suitability are prioritized in preparing learning materials because they are intended for lecturers and students as guidelines in implementing lectures.

Analysis of learning needs related to the implementation of the lectures that have been carried out so far. In this case, the analysis of learning needs is to identify the gap between the current state of learning and the state of learning that should or is expected. In other words, needs analysis is analyzing conditions or circumstances that are weak or less than the conditions or circumstances that should be or are expected. Learning needs analysis identifies various learning needs that will be implemented in Learning Planning lectures. The needs analysis aims to obtain appropriate inputs in the learning development in the Learning Planning course that follows the characteristics of educational organizations/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 inclusion of the learning objectives of the courses contained in the syllabus and the design of lecture activities made by the lecturer is limited to the inclusion of learning objectives based on the description of the achievement of the teaching materials that are mastered by the students so that it seems that the learning objectives made by the lecturer are written to meet the achievement of the material only. The writing of learning objectives has not been carried out with a scientific methodology of learning design, namely through the stages of needs analysis, learning analysis, and analysis of student characteristics and learning contexts.
- 3. The strategy or method used by the lecturer in the Learning Planning course is more dominantly using the lecture method. The lecture method is not wrong, but using the dominant lecture method without variations and combinations with other methods is theoretically inappropriate to convey the entire lecture topic. The dominant use of the lecture method in lectures is due to a habit that has been carried out for years, and the

- use of this lecture method is intended to maintain the understanding of the concepts inherent in students so that it is necessary to provide a detailed explanation from the lecturer through lectures.
- 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. No assessment instruments and rubrics could be used as signs by students to meet the assessment criteria required in making group papers presented. Lecturers only provide signs related to technical paper writing, such as setting margins, fonts, number of pages, and minimum number of learning resources used in writing and scheduling paper presentations. The absence of assessment instruments and rubrics and their criteria makes students unable to display the expected achievement of competency standards related to group paper writing and group discussion achievement standards.
- 6. No assessment instruments and rubrics related to the assessment criteria for students' assignments. Lecturers only provide topics or themes that are students' assignments and signs related to writing individual assignment reports, such as setting margins, fonts, number of pages, the minimum number of learning resources 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. When explored further, this happened because the lecturers of the Learning Planning course did not coordinate with each other in designing lecture activities. This non-uniformity is impressed by students from one class to another that the lecturers do not coordinate and go their separate ways. There are several parts of different 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.<sup>33</sup>

<sup>33</sup> Marlina, "Pengembangan Model Pembelajaran Blended Learning Berbantuan Aplikasi Sevima Edlink."

It begins with an analysis of learning needs related to implementing the lectures that have been carried out so far. In this case, the analysis of learning needs is to identify the gap between the current state of learning and the state of learning that should or is expected. In other words, needs analysis is analyzing conditions or circumstances that are weak or less than the conditions or circumstances that should be or are expected.<sup>34</sup>

Learning needs analysis identifies various learning needs that will be implemented in Learning Planning lectures. The needs analysis aims to obtain appropriate inputs in the learning development in the Learning Planning course that follows the characteristics of educational organizations/institutions and student characteristics.

The technique used to collect data at the learning needs analysis stage is done by interviews and documentation. The data collection instruments used in the previous data collection were discussed and reviewed with the promoter, expert, and course supervisor.<sup>35</sup>

The results of the discussion and review of the expert team on the instruments used in obtaining the learning need analysis data are: (1) the substance aspect related to the information and data extracted, and (2) the linguistic aspect includes improving the language rules in the instrument, improving meaningful words—double and effective use of sentences.

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

- 1. Students meet the demands of attendance in lecture activities in at least 75% of the 16 face-to-face meetings, namely 12 meetings. If for any reason forced not to be able to follow a subject in class, the student concerned must discuss it himself in writing and present it in the form of a short paper (maximum 1000 words) and submitted to the lecturer no later than two weeks after the discussion of the topic in question.
- 2. Students actively participate in lecture activities and group discussion activities that are formed in lectures.
- 3. Students are expected not only to read/study these teaching materials but also to read other reading sources and the internet to enrich scientific insight.
- 4. Students make notes/resumes as essential points from the topics discussed in the lecture.
- 5. Complete assignments are given during lecture activities promptly, both individually and in groups. Especially for group assignments, especially in

<sup>&</sup>lt;sup>34</sup> Rahmawati and Rohim, "Pengaruh Model Pembelajaran Kontekstual Berbasis Kearifan Lokal Terhadap Keterampilan Menyimak Siswa."

<sup>&</sup>lt;sup>35</sup> Barbara Seels and Rita Richey, *Instructional Technology: The Definition and Domains of The Field*, trans. Dewi S Prawiradilaga (Jakarta: Universitas Negeri Jakarta, 1994).

- presentations, if they are late or absent, the student concerned must move and become a member of the next group to get group presentation scores.
- 6. Students consult with lecturers who support courses related to the completion of individual assignments and group assignments.

The technique used to collect data at the learning needs analysis stage is done by interviews and documentation. The data collection instruments used in the previous data collection were discussed and reviewed with the promoter, expert team, and course supervisor team. The teaching materials for the Learning Planning course are intended for face-to-face and online lectures, so the learning materials are designed in as much detail as possible so that students use them appropriately and can achieve the learning objectives set from the lecturer's perspective. These learning materials are expected to facilitate lecturers to carry out Learning Planning lectures.<sup>36</sup>

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

Referring to Table 1, it can be seen that the assessment of the feasibility of teaching materials for contextual-based Learning Planning courses by experts obtained an average score of 3.39 and was in the appropriate category without revision.

The results of individual trials on teaching materials for Contextual - based Learning Planning courses can be seen in Table 2 below:

<sup>&</sup>lt;sup>36</sup> Sugandi and Bernard, "Penerapan Pendekatan Kontekstual Terhadap Kemampuan Pemahaman Dan Komunikasi Matematis Siswa SMP."

Table 2. Individual Trial Results Against Textbooks Lesson Planning Course

No	Assessment Aspect	Score
1	Material Clarity	3.33
2	Display Attractiveness	3.28
3	Graphics	3.53
4	Usefulness	3.33
5	Language Clarity	4.00
	Average	3.49

Referring to Table 2, it can be seen that the results of individual trials on the product of teaching materials for contextual-based Learning Planning courses obtained an average score of 3.49 with a feasible category without 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 effectiveness of teaching material textbook products Contextual-based Learning Planning subject is tested for normalized gain (N-Gain). In this case, the calculated N-Gain price is 0.40 in the medium category, so it can be concluded that the level of effectiveness of the contextual learning model based on *blended learning is* to improve learning outcomes. The student is moderate.

The findings in this study began with an analysis of the expert's assessment of the contextual-based teaching material for the Learning Planning subject that the researcher developed. The cumulative score was 3.39, with a decent category without revision. This means that the textbooks are developed to reflect the feasibility level for use, but of course, by accommodating suggestions for improvement submitted by experts.

Suggestions submitted by experts on contextual learning model textbooks based on *blended learning* are described as follows: (1) writing learning objectives should be complete with ABCD elements, (2) pay attention to the table of contents, (3) pay attention to writing technicalities, (4) need to make a competency chart as a result of learning analysis, (5) pay attention to the accuracy of the use of words and sentences, (6) the scope of teaching materials to be added, (7) pay attention to the systematics of writing chapters in textbooks, (8) reference sources to add lag, (9) pay attention to the consistency of writing between discussion chapters, (10) pay attention to writing arrangements and techniques, and (11) color display on each icon in the chapter to make it more contrast.

Textbooks are designed as printed materials in the form of a series of writings. Therefore they must be written in language rules and readability levels that are easy to understand and attract students' attention because students have individual characteristics that differ from one another. This is

confirmed by Seels and Richey (1994) that the characteristics of students are the students' background experiences that affect the effectiveness of the learning process.<sup>37</sup>

The use of advanced textbooks gives students its color. Namely, students study in class and learn outside the classroom to find learning resources anywhere and anytime. Such learning proves that students have interest and motivation and work hard to acquire knowledge and skills. This explanation implies that learning activities facilitate students to learn actively.

The effectiveness of teaching material textbook products Contextual-based Learning Planning courses are shown through the results of the N-Gain test. In this case, the N-Gain coefficient is 0.40 in the medium category. Based on the explanation in the previous chapter, the criteria for acceptance of the level of effectiveness of textbooks for teaching materials for contextual-based Learning Planning courses are if the results of the N-Gain count are at 0.30 N-Gain 0.70 in the medium category. Thus, it can be interpreted that the effectiveness of the product of teaching materials for contextual-based Learning Planning courses to improve student learning outcomes is moderate.

Availability of developed textbook products that is a printed learning resource that is planned or by design that is used in learning the Lesson Planning course as a determining factor in achieving the effectiveness of blended learning-based contextual learning model. Related to this planned learning resource (by design), AECT explains that learning resources can be grouped into two parts, namely: (1) planned learning resources (by design), namely all learning resources that have been specifically developed as components of an instructional system to provide targeted and formal learning facilities; and (2) learning resources because they are utilized (by utilization), namely sources that are not explicitly designed for learning purposes but can be found, applied and used for learning purposes.

#### Conclusion

The contextual learning model based on blended learning for the Learning Planning course was developed starting from needs analysis, design, evaluation, and trial stages to produce the syntax of learning models and learning tools in the form of model books, lecturer manuals, student manuals and textbooks that experts have validated and the results show the level of feasibility to be used in learning activities for the Lesson Planning course. The contextual learning model based on blended learning for the Lesson

<sup>&</sup>lt;sup>37</sup> Seels and Richey, Instructional Technology: The Definition and Domains of The Field.

Planning course is proven effective for use in learning. This can be seen from the results of statistical tests where it is known that the price t-count (4.33) > t-table (1.998). So, it can be concluded that this learning model is effective in improving the achievement of results. To develop the same product in other subjects, especially in designing teaching materials, it is suggested to lecturers as other developers to make adjustments in learning design by analyzing learning needs, student characteristics and context appropriately.

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