

---

## DEVELOPMENT OF GEOGRAPHY LEARNING TOOLS BASED ON THE INDONESIAN NATIONAL QUALIFICATION FRAMEWORK (KKNI) CURRICULUM

Achmad Nur Hidayah<sup>1,\*</sup>, Budi Aman<sup>2</sup>, Nandi Kurniawan<sup>3</sup>  
<sup>1,2,3</sup> Universitas Negeri Jakarta  
\*E-mail: achmadhidayah@gmail.com

---

### ABSTRACT

*The development of learning tools is one of the efforts to improve the quality of education as an effort to provide complete and systematic learning tools. One of them is the development of learning tools including (RPS) Semester Learning Plans and (RTM) Student Assignment Designs according to the KKNI in introductory geography courses. The development of learning tools in this study used the ADDIE (Analysis, Design, Development or Production, Implementation or Delivery, and Evaluations) model, with data collection instruments through questionnaires and validation sheets with descriptive analysis techniques. The results of the needs analysis showed that 74.4% needed an RPS adjustment and 78.9% needed the development of teaching materials in a social study program (PIPS), while the evaluation of the development validity (RPS) of Semester Learning obtained an average score of 3.59 while for the average instrument assessment (RTM) the Student Assignment Plan was obtained. the mean score is 3.75 with a mean value of 3.67 with valid criteria. These results indicate that the development of learning tools is following the KKNI and is ready to be implemented in learning activities.*

**Keywords:** *Introduction to Geography; Curriculum; KKNI; ADDIE.*

### A. INTRODUCTION

Education is important thing to faced with globalization, (Etistika, 2016) and (Astuti, 2019) says education in globalization era and technology have an influence in various sectors, in line with, (Trilling, 2012) reveals the existence of the need to prepare education graduates to compete in globalization era, especially in the field of education. (Sukartono, 2018) revealed that one effort taken to improve the quality of education and education graduates is to develop learning strategies to facilitate learning activities to develop in the form of implementing technology integration into education.

This is a strategic goal of the Ministry of Education and Culture that is considered relevant to improve programs and models of educational services that provide or use digital technology (online) which is known as Education 4.0, this is a term to describe various ways of integrating technology into learning.

Hamzah and Lamatenggo (Budiman, 2017) said that the trend of education in Indonesia in the future is the development of open education with a distance learning mode. One of the efforts to improve the quality of education by utilizing the integration of technology into the world of

education has created a major influence in improving the quality and efficiency of education. In line with (Cesar & Gaible, 2014) and (Mauliddia, 2017) reveal that educational goals can be achieved if assisted by the application of technology and technological developments such as learning media that are developed to improve the quality of education. Latif in (Marwiyah, 2011) revealed that dynamic learning activities can be measured from the level of the interaction process between the subject of students, educators, and learning resources. (Solikhah, 2015) reveals that it is necessary to develop systematic learning tools that can be used for offline and online lectures, a form of business carried out by the government by reforming the curriculum in educational institutions, including university curriculum. one of them is in the PIPS (social education study program) at the State University of Jakarta whose lectures always try to innovate new and more effective learning, especially when learning online or offline following KKNi (Indonesian National Qualifications Framework) standards.

According to Presidential Decree No. 8 of 2012, the implementation of the KKNi contains educational objectives in the aspect of scientific skills as well as the skills to behave, behave and work in society as the goal of completing the study

program. Conceptually, qualifications in the KKNi are composed of four parameters, including (1) scientific coverage (knowledge), (2) work skills, (3) methods and levels of ability to apply scientific fields, and (4) Internalization and accumulation capabilities of the four parameters. must be achieved through a process of work experience as a learning outcome or structured education. The determination of graduate learning achievement (CPL) at the higher education level contains four elements of the KKNi description including competencies in the field of work, knowledge, general abilities, and managerial competencies. According to (Clement, 2007) and (Sinuraya, 2012) (2017) a synthesis of curriculum development, learning and research is needed to provide the understanding and contribute both to ideas, learning processes, and changes in the curriculum. This opinion is confirmed by (Carlson, Carlson, Davis, & Buxton, 2014) that curriculum material has a function as an important instrument in decision making; Appropriate and good instruments, when used effectively, can help the process of learning activities and reforms oriented to the development of knowledge.

In addition to developing RPS (semester lesson plan), it is necessary to develop an evaluation in the form of a

student assignment plan (RTM) which is part of the RPS containing a description of student assignments that must be done within one semester.

According to (Jamaluddin, 2018), RTM contains task objectives, job descriptions which are broken down into task objects, task boundaries, how to do assignments, task outcomes, and task assessment criteria. RTM is prepared for study material that takes a long time to be understood. In addition, through the RTM, students can be trained to master various skills and develop attitudes that can shape their character to become knowledgeable, skilled, and characterized students. The tasks that must be done by students for one semester are described clearly and planned in the RTM. The task plan developed in the RTM includes students being given routine assignments, Critical Book Review Tasks, Critical Research/Critical Journals, Mini Research Tasks, Idea Engineering Tasks, and Project Tasks. Critical Book Review and Critical Research/Critical Journal assignments.

It is hoped that the development of learning tools in the form of RPS and RTM following the KKNI indicators can improve the quality of student learning.

## **B. MATERIALS AND METHODS**

The research belong to research and development according to (Borg & Gall

2005) research on the development of a process to be used in developing and validating products by educators through systematic steps, in this study adopting the ADDIE development model, (McGriff, 2000)states that ADDIE is an abbreviation of the development stage, which starts from the Analysis, Design, Development or Production, Implementation or Delivery and Evaluations stages to produce learning tool products in introductory geography courses.

Research development in the first year only reached the development stage which included the principles of development research, in line with (Mulyatiningsih, 2012) that the core of development research includes validation and revision of the developed learning tools.

The types of data obtained in the analysis of this study include qualitative and quantitative data. Qualitative data are comments, suggestions, or criticisms from validators. While quantitative data in the form of numbers is obtained based on the validation sheet using a Likert scale (range 1-4) according to GSE (General Self-Efficacy Exam) by (Schwarzer, 2002) where the criteria are 4 = very good, 3 = good, 2 = not good, 1 = not good.

The data collection instrument was measured by a learning device validation sheet. The data analysis technique used to

analyze the data from the RPS validation is the average calculation technique. According (Arikunto.S, 2019) the range of validation criteria for the complete calculation results can be observed in the following table:

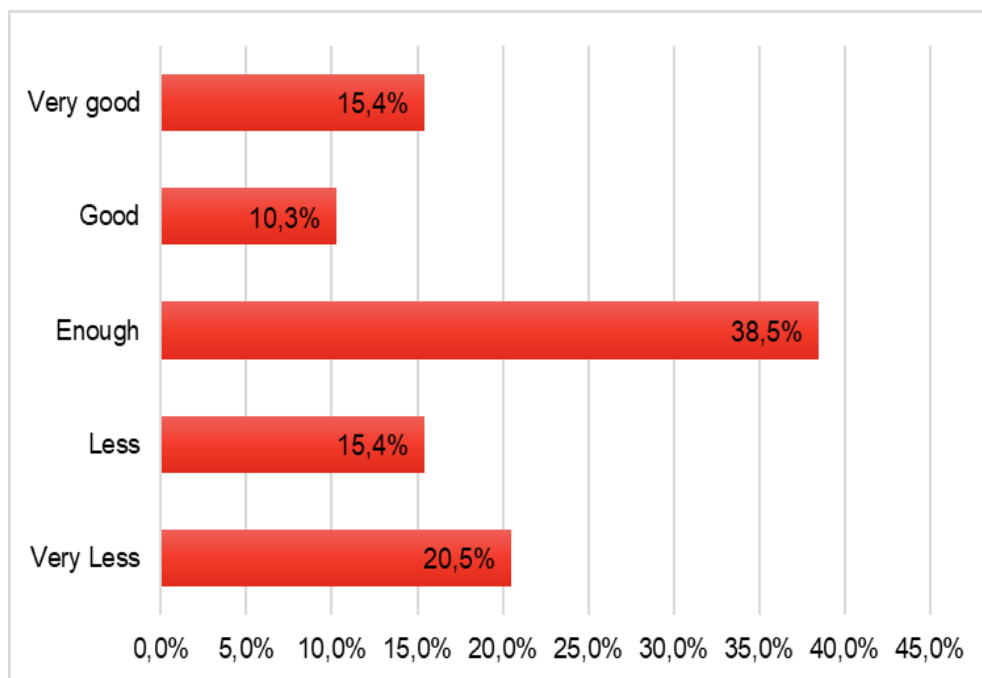
**Table 1.** Criteria for Validity of Average Value Analysis

Average	Validity Criteria
3,26 – 4,00	Valid (very decent)
2,51 – 3,25	Enough (Decent enough)
1,76 – 2,50	Not valid (less feasible)
1,00 – 1,75	Invalid (not eligible)

Source: Arikunto, S (2019)

### C. RESULTS AND DISCUSSION

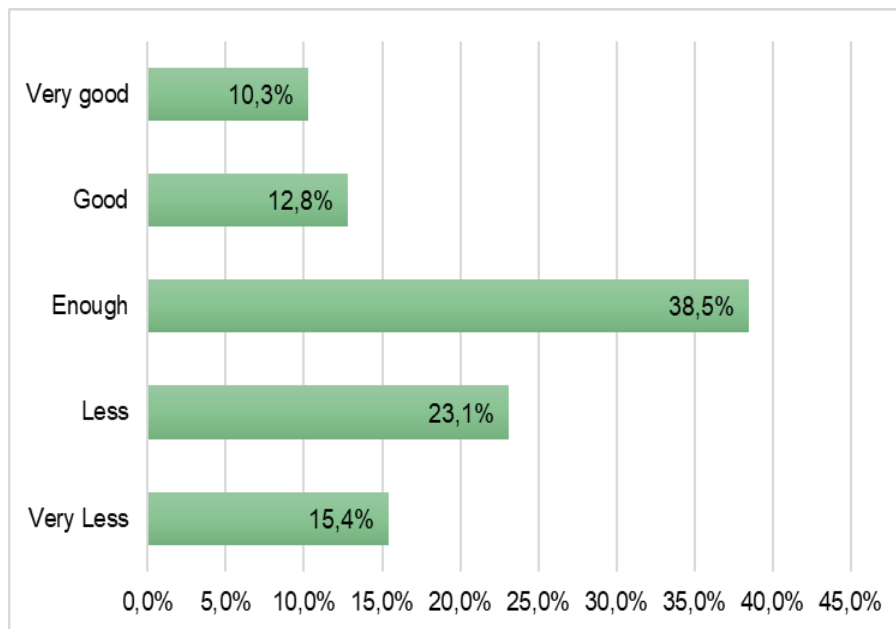
The results of the research at the needs analysis stage in the introductory geography course regarding the devices used by the lecturers, at the Analysis stage in the performance analysis and needs analysis were obtained from a questionnaire/questionnaire given to students to determine the need for learning tools at The introductory geography course about RPS introductory geography was given to 37 students and 2 lecturers in the field of geography in the PIPS study program.



**Figure 1.** Percentage of the suitability of the RPS Introduction to Geography (Source: primary data)

While no less important is the availability of teaching materials for lecture activities on the introductory

geography course material, from the results of the questionnaire obtained:



**Figure 2.** Percentage of Availability of Introductory Geography Teaching Materials (Source: primary data)

The results above show that the learning tools are still incomplete and still refer to the old RPS format. The existing learning tools are lecture contracts and Learning Plan Outlines, while in lecture activities the complete learning tools include lecture contracts, course syllabuses that are adjusted to KKNI indicators in SFD writing format.

The next stage is Design, which includes the preparation and development of lesson plans that will be used in introductory geography learning consisting of several stages including product planning, product design, and product development. At this stage,

documents are compiled that contains what activities are carried out from the planning, design, to development stages. This planning document serves as a guide for starting development activities from the initial procedure to the end. (RPS) Semester Learning Plans and (RTM) Student Assignments.

Semester Lesson Plans and Student Assignments. The semester learning plans made include (a) Study Program Identity, name of the supporting lecturer and course code, semester, credit load,; (b) CPL charged to the course; (c) the final competence at each learning stage in fulfilling the CPL; (d) Teaching materials

related to the achieved CPL; (e) learning activities; (f) Time taken to reach CPL; (g) Student learning experiences and descriptions of student assignments during one semester of lectures; (h) Indicators, weights and assessment criteria; and (i) Reference to learning resources are used. In the preparation of student assignment designs (RTM) used as evaluation instruments include assignments consisting of Routine Tasks (TR), Critical Book Review (CBR), Journal Review (JR), Mini Research (MR), Idea Engineering (RI), and Projects (PR). The assignments given are following the material in the basic chemistry course. Each assignment has its own assessment standard.

The next stage is development, the development stage includes making the RPS Rubik plan which is an elaboration of the syllabus of introductory geography courses by the lecturer together with the expert group lecturer (KK) in the field of geography in a study program where the development is adjusted to the standard process National Higher Education Standards learning, this stage aims to produce learning tools (RPS and RTM) that are valid and feasible to be implemented. At this stage, the results of the design of the introductory geography learning device are submitted to the validator. The validators who assess are

development experts and material experts. The results of the validation for the RPS are as follows: Based on the results of the validation for the feasibility of the Semester Lesson Plan, the average score is 3.7 with a very decent category. at the development stage, the developed RPS has gone through several revisions by adding input in the form of criticism and suggestions based on the validator's direction. The validation results for the RPS are as follows:

**Table 2.** Validation Results of Semester Lesson Plans

No	Indicator	Score validator		Σ Skor	Average
		I	II		
1	RPS Format	3	4	7	3.5
2	RPS Identity	4	4	8	4
3	CPL Learning Outcomes	4	3	7	3.5
4	Course description	4	4	8	4
5	Study material	3	3	6	3
6	Learning activities according to CPL	3	3	6	3
7	Topic and sub-topics	3	4	7	3.5
8	Learning indicators	4	3	7	3.5
9	Learning model	4	3	7	3.5
10	Time Allocation	4	4	8	4
11	Assessment instrument	4	4	8	4
<b>Average Skor</b>					3.59
<b>Indicator</b>					Very eligible

Source: Primary data

Based on the results of the validation analysis of the feasibility of the Semester Learning Plan, it obtained an average score of 3.7 with a very feasible category. This is because, at the development stage of this RPS, several improvements have been made based on suggestions and criticisms given by the validator. The next learning device is in the form of a Student Task Design (RTM). The validation results for the RPS can be seen as follows:

**Table 3.** Result of Validation of Student Assignment Design

No	Indicator	Score validator		Σ Score
		I	II	
1	RTM in accordance with Learning Outcomes	4	4	8
2	The material selected is appropriate and appropriate	4	4	8
3	The material on the RTM is according to the learning achievement	4	3	7
4	The RTM task procedure is clear and complete.	3	4	7
5	Systematic RTM presentation	3	4	7
6	RTM assessment is precise and complete.	4	4	8
<b>Average Score Indicator</b>				

Source: Primary data

In the validation of the development of learning tools, there are improvements suggested by the validator, such as assessment criteria and the accuracy of more detailed concepts, for some of the main materials in the introduction to geography including concepts, principles, and objects of study, while for indicators (RTM) Student Task Design includes Assignments Routines (TR), Critical Book Review (CBR), Journal Review (JR), Mini research (MR), Idea Engineering (RI), and Project (PR) can be developed according to contextual problems depending on the task description. As for the design of student assignments, both the first and second validators stated that they were following the KKNI.

In the KKNI student assignment design, it should consist of different types of assignments, this is to improve the quality of students in learning achievement in terms of knowledge,

attitudes, and skills. In addition, RTM has also been equipped with an understanding of each type of task, work process, report systematics, and assessment indicators that are tailored to the character of the type of task. So that based on the assessment for the Student Assignment Design, the criteria are very feasible and can be implemented. The Product Draft Trial (Implementation) and the Product Draft Trial Results (Evaluation) will be carried out on a year-to-year scheme in the introductory geography course.

Research on the development of the KKNI in the higher education system in Indonesia has been widely discussed. Several studies on student standards in higher education have been discussed. (Siagian & Siregar, 2018) researched at Medan State University, (Suradi & Amaliyah, 2019) studying problems in private universities in Bengkulu and. (Nurjannah, 2017) studied the issue at UIN Sunan Kalijaga, Yogyakarta. From the results of the study, it is explained that in the development and implementation of the KKNI, it is necessary to have the readiness of educational institutions in facing the increasing demands of the world of work.

The KKNI orientation refers to curriculum development which has shifted from competency achievement to learning achievement (Solikhah, 2015)(Nugrahadi,

Aipita, Ane, & Putra 2018); (Maba, 2016); (Muhammad & Ariani, 2020), this will also help students to be qualified with their profession, in line with (Ginaya, etc. 2018) in their research stated that the implementation of the KKNI helped Some graduates have shown their capability to successful professionals This means the waiting time for the graduates to get the first job is shorter, which can be a pride for both the graduates and the study program.

#### **D. CONCLUSIONS**

Based on the results of development through needs analysis, 74.4% of respondents think that there is a need to adjust the RPS and 78.9% of the need for the development of teaching materials, in the development of tools that have been implemented in the form of (RPS) Semester Learning Plans adapted to The Indonesian National Qualification Framework (KKNI) Curriculum includes scientific coverage (knowledge), work skills, methods and level of ability to apply scientific fields, and Internalization and (RTM) student assignment design in introductory geography courses through the steps of developing the ADDIE model that has met the criteria of validity. obtained through the validation results by obtaining an average value of 3.67 with valid criteria, where the Semester Learning Assessment (RPS) obtained an

average score of 3.59 while for the instrument assessment average (RTM) the Student Assignment Plan obtained an average score of 3.75.

In this research, it is limited to the development stage, then to test the feasibility of the learning tools experiments will be carried out, (Gufron A, 2017) and (Andriani, 2021) in their research to empirically test the implementation of the learning tools that have been developed, empirical tests are needed to obtain evidence of the performance of the instrument. Instrument performance can be measured based on satisfaction in learning activities and academic performance from the use of developed learning tools. For further research, other learning tools will be developed such as teaching materials and learning media to complement the existing learning tools.

#### **E. REFERENCES**

- Andriani, D.A., & Dewi, R.M. (2021). Pengembangan Media Pembelajaran Tebak Kata Pada Materi Bank Sentral, Sistem Pembayaran dan Alat Pembayaran. *Jurnal Pendidikan Ekonomi (JUPE)*, 9(2), 65–67.
- Arikunto.S. (2019). *Prosedur Penelitian Suatu Pendekatan Praktek*. PT. Rineka Cipta.
- Astuti, Waluya, S. B., & Asikin, M. (2019). Strategi Pembelajaran dalam Menghadapi Tantangan Era Revolusi Industri 4.0. *Prosiding*



- Seminar Nasional Pascasarjana UNNES*, ISSN: 2686-6404.
- Borg, W R & Gall, M D. (2005). *Educational research: an introduction, Fourth Edition*. Longman. Inc.
- Budiman, H. (2017). Peran Teknologi Informasi Dan Komunikasi Dalam Dunia Pendidikan. *Jurnal Pendidikan Islam* P.ISSN: 20869118 E-ISSN: 2528-2476, 8(1).
- Carlson, J., Davis, E. A., & Buxton, C. (2014). *a worldwide organization for improving science teaching and learning through research. Supporting the Implementation of NGSS through Research*.
- Cesar, A. and Gaible, E. (2014). *Development of Multimedia Material: Second Edition* (Second Edition).
- Clement, D. H. (2007). Curriculum Research: Toward a Framework for “Research-based Curricula. *Journal for Research in Mathematics Education*, 38(1), 35–70.
- Etistika, Y. W. etc. (2016). Transformasi Pendidikan Abad 21 Sebagai Tuntutan Pengembangan Sumber Daya Manusia Di Era Global. *Prosiding Seminar Nasional Pendidikan Matematika 2016, UKM.*, 1.
- Ginaya, G. etc. (2018). The Indonesia National Qualification Framework Based-curriculum and the Graduate Competence Standard: A Case Study in Travel and Tourism Business Study Program. *In Proceedings of the 1st International Conference on Recent Innovations (ICRI 2018)*.
- Gufron A, H. (2017). Pengembangan Mobile Learning Bagi Pembelajaran. *JKKP. Jurnal Kesejahteraan Keluarga Dan Pendidikan* Doi.Org/10.21009/JKKP.042.07 E-ISSN : 2597-4521.
- Jamaluddin, etc. (2018). Pengembangan Perangkat Perkuliahan Berbasis Pendekatan Saintifik di Program Studi Magister Pendidikan. *Jurnal Ilmiah Profesi Pendidikan P-ISSN: 2502-7069; e-ISSN: 2620-8326*, 3(1), 30–36.
- Maba, W. (2016). Kurikulum Sarjana Berbasis KKNi Mengubah Mindset Pengajaran Menjadi Pembelajaran. *Jurnal Bakti Saraswati*, 5(1), 85–87.
- Marwiyah. (2011). Urgensi Perencanaan Dalam Kegiatan Pembelajaran. *Jurnal Ulul Albab Makasar : UMI*, 65–81.
- Mauliddia, H. (2017). Earthcomm-based Electronic Module: The Learning Material of Natural Resource Management Wisdom. *IOP Conf. Series: Earth and Environmental Science* Doi:10.1088/17551315/145/1/012003.
- McGriff, S. J. (2000). *Intructional System Desaign (ISD): Using the ADDIE Model, Intrutional System*. Penn State.
- Muhammad, I. & Ariani S. (2020). The Development of KKNi-Based Curriculum at the Arabic Language Education Programs in Indonesian Higher Education. *Jurnal Ilmiah Peuradeun*, 8(3), 451–474.
- Mulyatiningsih, E. (2012). *Metode Penelitian Terapan Bidang Pendidikan*. Penerbit Alfabeta.
- Nugrahadi, E. W., Maipita, I., Ane, L., & Putra, P. D. (2018). Analisis Implementasi Kurikulum Berbasis KKNi di Fakultas Ekonomi UNIMED. *Jurnal Niagawan*, 7(1), 8–13.
- Nurjannah. (2017). Pengembangan Kurikulum Berbasis Kerangka Kualifikasi Nasional Indonesia (KKNi) pada Fakultas Dakwah dan Komunikasi UIN Sunan Kalijaga

- Yogyakarta. *Jurnal Bimbingan Konseling Dan Dakwah Islam*, 14(1).
- Schwarzer, R. (2002). *The General Self-efficacy Scale (GSE)*. Department of Health. Psychology. Freie Universität.
- Siagian, B. A & Siregar, G. N. S. (2018). Analisis Penerapan Kurikulum Berbasis KKNI di Universitas Negeri Medan. *Pedagogia. Jurnal Ilmu Pendidikan* <https://doi.org/10.17509/Pdgia.V16i3.12378>, 16(3), 327–342.
- Sinuraya, J., Motlan, & Ratelit, T. (2012). Pembelajaran Berbasis Scientifics dalam Mencapai Academic Success Skil. *Prosiding SNFA (Seminar Nasional Fisika Dan Aplikasinya)* E-ISSN. 2548-8325 / P-ISSN 2548-8317.
- Solikhah, I. (2015). KKNI dalam Kurikulum Berbasis Learning Outcomes. *Journal of Language, Literature and Teaching*, 12(1), 1-22. *Journal of Language, Literature and Teaching*, 12(1), 1-22., 12(1), 1–22.
- Sukartono. (2018). *Revolusi Industri 4.0 dan Dampaknya Terhadap Pendidikan Indonesia*. Surakarta. FIP PGSD Universitas Muhammadiyah Surakarta.
- Suradi, A. & A. A. (2019). Aktualisasi Kurikulum Kerangka Kualifikasi Nasional Indonesia: Studi di Perguruan Tinggi Keagamaan Islam Swasta Bengkulu. *Nuansa: Jurnal. Studi Islam Dan Kemasyarakatan*, 12(2), 232–244.
- Trilling, B. and F. C. (2012). *21st Century Skills: Learning for Life in Our Times*. K-12 General.