



How is the Development of Human Geography Sciences in Schools?

Muhammad Robith Farkhan*, Enok Maryani, Epon Ningrum and Nandi Nandi

Universitas Pendidikan Indonesia, Bandung, Indonesia
muhammadrobith.geo@upi.edu

Abstract. Human geography is studied and developed in schools through the study of geography. At the school level in Indonesia, human geography has not become an independent discipline. This causes the development of human geography studied to be still low, despite the fact that there are various human related problems that must be solved through specific studies of humans. The purpose of this research is to know and conceptualize the development of human geography in schools. The research method used was a mix method, descriptive quantitative are used to reveal the facts of the human geography learning field, as well as the literature study as an initial concept for the development plan for geography learning in schools. The results are presented regarding the application of human geography on the senior high schools, the urgency of human geographical studies on the senior high schools, the suitability of material in human geographic studies to development, and basic concepts for the development of human geographical studies on the senior high schools with ADDIE development models. Based on this research study it was concluded that human geography is developed through learning of geography in accordance with the latest curriculum policies in schools.

Keywords: Development, Human Geography, Schools.

1 Introduction

Human has resided on earth since hundred thousand years then. Since that's human has recognize as one creature occupying life earth. Human own uniqueness that differentiates with other creatures on the surface earth. The role of humans also goes hand in hand time dominate in the life, after previously domination nature is very strong. Life human from formely until moment this and future will be very dynamic so that the changes brought about will fast and massive [1].

Characteristics unique human being, giving birth various study science separately related with human. The dynamics life human cause studying science of human very easy changed adapt with development humans in every era. Science discipline that focuses on study there are so many people, every one knowledge it also has object differnet studies. A number of among discipline of sociology knowledge that focuses on a human group, anthropology own object physique culture from human, object

psychology form behavior humans, to the point of knowledge study in every prespective of knowledge discipline like ecology people, human geography, and so on.

Geography as knowledge discipline not only study about earth in a physical manner. But also research all something related with creature life like humans, animals, and plants [2] [3]. Human and nature interaction in a space advance earth become characteristics typical study discipline of geography knowledge, so something is called with spatial approach [4] [5]. Another approach is also scope of geography education is environmental approach and regional approach. By implicit, second approach the created from a existence dominating human life as understood possibilism.

Early geographic study development more lots study about genre trust local related knowledge base about earth until making map [6]. Human studies as one branch knowledge new there is a number of century after emergence discipline of geography knowledge at the time of emerging modern geography from its development. A number of expert initiating geography emergence study human in the modern geographers include Paul Vidal de la Blache, Carl Ritter, and Alexander von Humboldt [7]. Human geography study own complexity study life human in world, current social issues are very diverse, entering the era of the 21st century, giving rise to modern human geography [8] [9].

Knowledge of human geography in Indonesia are known as social geography knowledge, no like mention human geography in general around the world [10]. Each scientist's thoughts and curriculum implementation in schools are different in the study of human geography [11]. Geography program carry out studies of human geography through learning and research carried out. However development knowledge until moment this still a little reach the senior high school. Curriculum in senior high school do human geography in the subject matter in geography science through discussion related dynamics population, culture study, and the anthroposphere [12] [13]. It different with university level specific and detailed studied in the geography department and geography education programs.

Population studies in senior high schools at the time this has a little experience development with a school program [14]. The programme integrated every subject and school programs in population knowledge. But the program still find weakness expensive and difficult integrate into the curriculum. The programme still limited to a few school course, not yet done throughout or most schools, so need keep going activated in a sustainable. However, what is important and focuses on developing learning is subject matter related to human geography and population studies.

What was found in the field is population study still need development so you can carried out by each teacher and participant study at senior high schools. Study this done as material input for holder interest specifically part curriculum to be able to add important study moment this connection with human geography and technology. This study refers to research previously who studies knowledge related human geography in research by Hastuti in 2007. As for novelty in this research is lies in the specifications study on development of human geography in schools, studies this not yet lots carried out.

2 Research Methods

This study use research methods is mix method, more spesifically on the explanatory sequential mixed models, type of quantitative descriptive use percentage, as well use studies literature type in qualitative methods. The explanatory sequential mixed model is a mixed research model that conducts quantitative research and then qualitative research as an explanation [15]. Descriptive quantitative type used for reveal fact field learning of human geography in senior high schools, which includes application human geography, urgency knowledge of human geography, and conformity human geography with development modern humans. Literature study used as draft begining plan development learning geography specifically branch knowledge geography people at senior high schools. Source of data used in the study this use primary data sources and secondary data sources. The primary data sources used came from questionnaires and interviews with student and teacher respondents. The research subject of class XI IPS totaled 124 students, divided into four classes, considered through analysis of human geography learning, while 2 teachers were interviewed regarding human geography learning. The research location was carried out at SMA Negeri 1 Kandanghaur which was determined through consideration of time, permits, and other considerations. The instrument in this research was adapted to three indicators which contained five questions to determine the development of human geography learning in schools. The instrument was carried out by expert judgment on construct validation. Secondary data sources originate from review references books, journals, and sources relevant, reliable so that fulfil rule scientific.

3 Finding and Discussion

3.1 Application of Human Geography on the Senior High School

Geography is studied as a social science at senior high school level in Indonesia, it is a rote concept and is currently in the realm of problem solving and project-based which generally involves maps [16]. Human geography as branch from geography discipline if learn of main knowledge. This caused study of nature and humans along the interaction in the room that is focus from geography knowledge. The term of social geography in Indonesia generally refers to human geography. Researchers use the term human geography so that the study refers more specifically to the human of subject matter in geography learning.

Implementation of human geography in schools is studied in subject matter related to dynamics population in Indonesia. Different from university or expert levels that have study separately as geography learning people in the geography department or geography education department. It linked with achievements learning in school is limited by time learning and demands curriculum.

Population studies in geography learning as form representation study of human geography. Collected data from participant educate obtained information that in part big school application classroom learning held with well, through study every aspect

base until population problems in Indonesia. As for some participant other students assess related population learning no good caused by the teacher in one rare school give classroom teaching on studies that. By detail related matter the can noticed in the Table 1 follows.

Table 1. Implementation of Population Learning

No.	Variable	Amount Student	Percentage (%)
1	Good	93	75
2	Not Good	31	25
Total Amount		124	100

Source: Data Processing 2023

The table shows that the implementation of learning geography in the chapter on population dynamics in Indonesia for most students has been carried out well. This research only focuses on one subject matter which is included in the human geography family. This is different from other relevant research studies which examine broader matters, namely examining every senior high school subject matter which is included in the social geography scientific group, so that the research contains several chapters on geography learning [17]. The research gap in this study was that there were no specific studies that visualized human geography in schools. Based on these differences in coverage, the novelty obtained in this research is the implementation of human geography studies in schools.

Knowing students' learning difficulties is one of the stages in finding out the extent of learning achievements in the human geography at school, because it describes every obstacle and smoothness of learning. Generally, the measurement is through a comparison of high class and low class, but the researchers organized it into two questions related to students' difficulties with theoretical subject matter and mathematical subject matter. The student results are shown in the following table.

Table 2. Difficulties Students in Population Studies

Difficulties of Population Theory			
No.	Variable	Amount Student	Percentage (%)
1	Easy	78	63
2	Hard	46	37
Total Amount		124	100

Trouble Calculation Population			
No.	Variable	Amount Student	Percentage (%)
1	Easy	57	46
2	Hard	67	54
Total Amount			

Source: Data Processing 2023

Mostly participant educate no experience difficulty in the theory of study, however students experience difficulty in calculations through formula for calculate related population data or mathematics subject matter. Whereas through interview obtained

information that teachers don't experience difficulty in teach population study caused fundamental studies, will different if applied study of human geography.

Population study at senior high school still characteristic theoretical and mathematical, meanwhile practice learning in study population still less. Problems of study in the dynamics population in Indonesia are very necessary studied and solved through geographical approach. Absence of practice field to public caused tight time so that impossible students look for problem direct in the field for primary data.

Another study in Indian high secondary schools examining the difficulties of geography learning found that some students had difficulties related to subject matter concepts such as geology, and some had difficulty remembering time and geographical facts [18]. Another study at the American high secondary school level found difficulties in geography learning, namely analyzing graphs and charts [19]. This also happens in Indonesia, but another problem related to learning difficulties in Indonesia that often occurs is students' mathematical abilities in every lesson, including geography. This problem will have several steps that are different from the problems in India.

3.2 The Urgency of Human Geographical Studies on the Senior High Schools

Human geography study on a university level especially for students taking study programs of geographical knowledge or geography education department characteristic must learned. it caused study of human geography as eye studying expertise geography and very supportive ability discipline science. However different with senior high schools, geography only limited to subject matter.

The assessment of the importance and unimportance of human geography learning in senior high schools has generally been researched since 1953 AD through the presentation of Marxian dogma up to World War 2. This research allows students to provide input on the subject matter of the human geography science group, as a first step in adapting to learning needs. Some data in Table 3 shows urgency study of human geography on a ladder of senior high schools.

Table 3. Urgency of Human Geographical Studies in Schools and Suggestions for Adding Relevant Studies

Urgency of Humans Geographical Studies on Senior High Schools			
No.	Variable	Amount Student	Percentage (%)
1	Important	31	25
2	Not Important	93	75
Total Amount		124	100

Study Suggestions that Should Be Added in Population Subject Matter

No.	Variable	Amount Student	Percentage (%)
1	Study of problems in society in life daily	36	29
2	population data from real time BPS	13	10.5
3	Study of the advantages of Indonesia which has a lot of human resources	21	17
4	No need added	54	43.5
Total Amount		124	100

Source: Data Processing 2023

Based on the table the obtained information that students evaluate study of human geography no important studied in a basic level, however if study base like population rated important learned. Population studies in the lesson geography need added related with study problems in society, study advantages Indonesia has resource large numbers of people, and study of population data from the Central Bureau of Statistics latest. Assessment of the importance of learning and suggestions from students as a form of input for subject matter developers to be considered in the future without reducing the important role of stakeholders who make and determine human geography learning at the senior high school level.

Geography teacher evaluate that population study is part small from human geography knowledge. Senior high schools no need study of human geography in a detail as in universities levels. This caused curriculum in schools only demand understanding until application related population dynamics. In depth study population emphasis on solutions in problems and materials adapt development population in Indonesia or the world.

3.3 Suitability of Material in Human Geographic Studies to Development

Material study related dynamics of population must adapt with circumstances or development people on curriculum, place, and time moment this is for study characteristic actual. It as form representation from characteristics study of human geography. Facts that happen in school moment this that material the still dominated by related teaching materials of population is also studied in the Competency-Based Curriculum in 2004, this is known through review curriculum. Based on the concluded that study of geography on matter dynamics population still not yet in accordance with development man moment this. Geography teacher give a number of extra studies to fit with development of the times that is with including population data latest from BPS, and additions study related technology in the dynamics population.

Anthroposphere studies is one geography study applied humans in the learning geography at senior high school. Anthroposphere studies taught to participants educate at the beginning learning geography. the study studied in a manner fundamental related understanding anthroposphere until anthroposphere and geography. By implied has is known that anthroposphere included in the study of human geography. Geography teacher give input on the discussion anthroposphere must done update discussion so that the knowledge is taught not static or still from year to year. Same thing with discussion of human geography others, studies anthroposphere required update material

and studies problems to get it adapt with development society. Facts on the ground moment this is study anthroposphere only a little experience change from a number of twenty last year. This becomes attention each stakeholder in order to subject matter capable adapt development science and phenomena in society this moment.

Culture as results effort a society whose development is very dynamics. Cultural studies in secondary schools are part from study human geography, however study it's very easy changed if compared to with other study of human geography [20]. Based on research field find that material culture has done updates on additions study wisdom local and global culture, so participant educate can align culture the output is attitude appreciation for culture local and national as well as capable recognize and filter global culture with good. Development study culture keep going done for adapt to condition culture every age.

3.4 Basic Concepts for the Development of Human Geographical Studies on the Senior High Schools

Human geography study through material lesson of population dynamics at senior high school need a little developed. Development done on things of a nature essential related effort actualize material population with condition development global, national and local communities. Based on the Undang-Undang Number 18 of Year 2002 interprets that development knowledge knowledge aim utilise valid theory as effort enhancement benefit knowledge knowledge that has there is or not yet there is. Study this attempted for can answer question related how development study of human geography in school, of course different with study it is at university level. But that's a must emphasis on research this only as draft base in prepare development study of human geography at senior high school in activity next study.

Development of human geography knowledge at senior high school is no means create theory new in the knowledge that, however develop material studies that have been done there is previously needed participant educate now and in the future. This different with activity scientists and researchers who focus on development knowledge for benefit and progress knowledge. As for the concept base in do effort development study of human geography in school through study population among them examine problem basic, analysis needs, framework thinking, formulation and adaptation theory, as well validation expert [21]. However, researchers emphasize the Research and Development method type of ADDIE (Analysis, Design, Develop, Implementation, and Evaluate) for developing anything, including human geography studies [22]. Researchers have determined the ADDIE model as a tool for developing subject matter on the grounds that it has been structured systematically. This research does not directly develop subject matter related to human geography, but here only visualizes the basic concepts in developing subject matter in schools.

The first stage of developing this model is to carry out a series of analyses. The analysis in question is carrying out a series of studies related to needs. Study of student learning needs is relevant to the curriculum including instructional objectives [23]. An important analysis is carried out regarding whether or not development is necessary, priority scale, and so on related to subject matter development. Looking for

problems and weaknesses in learning is also needed at this analysis stage. Problems encountered from results study will made as urgency base development study of human geography in school. Geography teachers do observation problem in class related need or nope population teaching materials done development. If found problem form objective learning that doesn't achieved caused teaching materials that are not in accordance with development public this moment, then important do development order problems can solve.

Analyze need material study addition based on consideration problem that has found. Purpose of analysis need is suitability between required materials with effectiveness material. It means if need required material added a little but addition lots so material study not effective, because lots discussion outside from need material proper study. Analyze needs must also be notice curriculum in force in the classroom at this time, especially at the limit of achievement objective learning level of senior high schools. Analysis of learning hours pay attention to study no use lots time.

The second stage in the ADDIE model is the first letter D, which stands for design. The subject matter that has been analyzed is then carried out to prepare a table framework for the supporting structure in carrying out the development [24]. Arranging these parts must be sequential so that the design form can describe what will be developed. This research focuses on subject matter design, carried out through preparing material variables that suit student needs and the competencies to be achieved, preparing the selection of learning tools that will be used. Other research that develops of learning material at the design stage is carried out by determining subject matter that has been adjusted to various researchers' considerations and determining learning tools [25]. The framework of thinking and terms of reference must be able to be relevant so that development is directed and systematic.

Framework think can make it easy in designing theory or discussion study to be systematic [26]. Framework think can used technique deductive or technique inductive customized with study the theory. Framework think designed with nice and simple. Arrangement can shape theory-practice, or introduction problem-solution in dynamics population. Stages furthermore is formulation and adjustment theory, that is pouring framework think become an additional post study science. Adapt theory aim to fit between framework think with formulation or pouring theory, consider other factors like curriculum.

The second letter D or the third step in the ADDIE model is develop. The framework that has been prepared is then developed, such as subject matter, learning tools, and anything that will be developed in human geography learning. The development stage must be carried out in depth, optimization and effectiveness in order to produce a good product. Below, the researcher provides a visualization of the development stages carried out in this research.

Table 4. ADDIE Learning Development Concept, Development Stage of the Population Chapter on the Theme of Human Geography

Raw Product	Additional Modification	Development Product
Syllabus Text Book Learning Tool Learning Object Learning Needs	The additional subject matter is the study of current population problems based on accurate data and facts	Learning chapters on population dynamics in Indonesia based on problems, solutions through projects, based on actual data and facts.

Source: Data Processing 2023

The table shows the develop stage in the ADDIE development model. This research has three important elements in developing subject matter, namely raw product, additional modifications, and product development. Raw products are various things that are material for study and consideration in development. Additional modifications are several components that must be added to the subject matter of the Population Chapter. while the development product is the result of subject matter that has been added and becomes a development product, which is then validated. The development stage also validates the various learning tools being developed [27].

This research validates the subject material developed in order to obtain results that can be applied in learning. Validation is carried out by geography learning experts, assessing subject matter related to language, sentence understanding, writing structure, and others. Expert validation required for get assessment and evaluation if required repair or refinement. There is results end from validation accepted and rejected, accepted means the data is valid while rejected means the data is invalid. Rejected data will be done crosscheck from stages early to get is known thing to be obstacles to development study of human geography. Validity something the study to be developed very decisively achievement implementation in the field.

The next stage in the ADDIE development model is implementation. The results of the design in the analysis, design and development stages are then implemented. This stage is important to carry out limited trials so that each of the strengths and weaknesses are then considered and paid to attention [28]. This is useful for the sustainability of subject matter related to human geography in geography learning. The implementation of the subject matter can be integrated into existing source books or alternative sources, which are applied to the chapter on population dynamics in Indonesia and other chapters relevant to the general theme of human geography.

Evaluation is the final stage in the five stages of development based on the ADDIE model. Evaluation provides perfection in the product development carried out [29]. Evaluation is carried out after implementing the product to users, so that they know what improvements need to be made. Evaluation is carried out thoroughly regarding the integrity of the product. The subject matter resulting from the development will be evaluated based on the results of the implementation, several components will be improved. Product refinement is important for optimal application of subject matter in every school on a broader basis.

4 Conclusion

Development of human geography study at senior high school, subject matter about population, anthroposphere, and culture different with development carried out in the science of human geography at the university level. Development done through additions and adjustments material study to development global, national, and local communities, so study science is also required for actual. Participant educators and teachers yet need he did development study science of human geography, considered on factors understanding students. However on the side others, human geography studies characteristic actual so that development need done with consider various factors. Every development stage attempted for implemented for the purpose can achieved.

References

1. A. Rinawati, "Transformasi Pendidikan untuk Menghadapi Globalisasi," *Jurnal Pendidikan*, vol. 3, no. 1, pp. 93-103, 2015.
2. F. I. Aksa, S. Utaya and S. Bachri, "Geografi dalam Prespektif Filsafat Ilmu," *Majalah Geografi Indonesia*, vol. 33, no. 1, pp. 43-47, 2019.
3. A. Natakusuma, Suroso and P. Hardati, "Pengaruh Cara Belajar Terhadap Hasil Belajar Siswa pada Mata Pelajaran Geografi di SMA Negeri 2 Pekalongan," *Edu Geography*, vol. 5, no. 3, pp. 124-133, 2017.
4. Hastuti, "Prespektif Spasial dalam kajian Geografi Manusia," *GEOMEDIA: Majalah Ilmiah dan Informasi Kegeografian*, vol. 7, no. 2, pp. 31-40, 2009.
5. B. Wijayanto, Sumarmi, D. H. Utomo, B. Handoyo and M. Aliman, "Problem-Based Learning Using E-Module: Does It Effect on Student's High Order Thinking and Learning Interest in Studying Geography?," *Journal of Technology and Science Education*, vol. 13, no. 3, pp. 1-11, 2022.
6. N. Sumaatmadja, *Studi Geografi: Suatu Pendekatan dan Analisa Keruangan*, Bandung: Penerbit Alumni, 1988.
7. Suharyono and M. Amein, *Pengantar Filsafat Geografi*, Yogyakarta: Penerbit Ombak, 2013.
8. C. Kesteloot and P. Saey, "The Nature of Changes in Human Geography since the 1980s: variation or progress?," *Balgeo*, vol. 3, no. 1, pp. 131-144, 2003.
9. I. M. Zain, S. Masitoh and M. Nursalim, "Geografi Manusia dalam Perspektif Filsafat Ilmu," *JUPE: Jurnal Pendidikan Mandala*, vol. 7, no. 4, pp. 772-776, 2022.
10. Daldjoeni, *Pengantar Geografi*, Yogyakarta: Penerbit Ombak, 2014.
11. V. Mihaylov, "Applied Aspects of Human Geography. A Critical Approach to Traditionalist Views," *Journal of Geography Politics and Society*, vol. 10, no. 2, pp. 1-9, 2020.
12. D. Collins and T. Coleman, "Social Geographies of Education: Looking Within, and Beyond, School Boundaries," *Compass*, vol. 2, no. 1, pp. 281-299, 2008.
13. A. Fengwei and N. Wang, "Integration of Urban-Rural Planning and Human Geography for Online Education Under the Impact of Covid-19," *Journal of Intelligent & Fuzzy Systems*, vol. 39, no. 6, pp. 8847-8855, 2020.
14. Y. Kartikasari and N. Hidayah, "Implementasi Program Siaga Kependudukan pada SMAN 1 Ngaglik Sleman," *Dimensia: Jurnal Kajian Sosiologi*, vol. 10, no. 2, pp. 174-189, 2021.
15. J. W. Creswell, *Research Design: Pendekatan Metode Kualitatif, Kuantitatif, dan Campuran*, Yogyakarta: Pustaka Pelajar, 2019.

16. D. Fitriani, R. P. Dewi and Y. A. Wibowo, "The Urgency of the Geographic Laboratory at the Senior High School," in *ICOLAE: International Conference of Learning on Advance Education*, Surakarta, 2021.
17. A. N. Hikmarani, A. Sya and M. Zid, "Implementasi Aspek Sosial pada Mata Pelajaran Geografi dalam Pembelajaran di SMA," *Syntax Literate: Jurnal Ilmiah Indonesia*, vol. 7, no. 3, pp. 2672-2680, 2022.
18. T. Alam and A. Alam, "A Study of Learning Difficulties in Geography Faced by Senior Secondary School Students of Araria Districts of Bihar," *Shodh Sarita: An International Bilingual Peer Reviewed Refereed Research Journal*, pp. 193-197, 2021.
19. M. G. Rickey and F. L. Bein, "Students' Learning Difficulties in Geography and Teachers' Intervention: Teaching Clases from K-12 Classrooms," *Journal of Geography*, pp. 118-125, 1996.
20. R. F. P. Riantika and Hastuti, "Kajian Kearifan Lokal dalam Prespektif Geografi Manusia," *Geomedia*, pp. 1-9, 2019.
21. Bahrum, "Ontologi, Epistemologi, dan Aksiologi," *Jurnal Sulesana*, pp. 35-45, 2013.
22. S. Hadi, *Metodologi Riset*, Yogyakarta: Pustaka Pelajar, 2016.
23. N. Aldoobie, "ADDIE Model," *American International Journal of Contemporary Research*, pp. 68-72, 2015.
24. M. K. Khalil and I. A. Elkhider, "Applying Learning Theories and Instructional Design Models for Effective Instruction," *Advances in Physiology Education*, pp. 147-156, 2016.
25. E. Widyastuti and Susiana, "Using the ADDIE Model to Develop Learning Material for Actuarial Mathematics," in *The Sixth Seminar Nasional Pendidikan Matematika Universitas Ahmad Dahlan*, Yogyakarta, 2019.
26. R. Carver, "Theory for Practice: A Framework for Thinking About Experiential Education," *The Journal of Experiential Education*, pp. 8-20, 1996.
27. M. A. B. M. Aris and R. B. Mansor, "Development and Validation of Teaching and Learning Module Based on Addie Model for Year 4 Plant Topic," *International Journal of Academic Research in Progressive Education and Development*, pp. 1413-1428, 2023.
28. A. G. Spatioti, I. Kazanidis and J. Pange, "A Comparative Study of the ADDIE Instructional Design Model in Distance Education," *Information*, pp. 1-20, 2022.
29. T. Dousay and R. Logan, "Analyzing and Evaluating the Phases of ADDIE," in *Design & Development Research Conference*, Cape Town, 2011.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

