

Evaluation of the implementation of professional development efforts in improving the professionalism of Geography teachers

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Abstract

This study aims to determine how the implementation of teacher professional development efforts and the government and/or related agencies' participation in supporting teacher professional improvement can formulate sustainable professional development efforts in improving the professionalism of high school geography teachers in Brebes Regency. This evaluation study used the discrepancy model. The method used was descriptive quantitative and analyzed using percentage descriptive techniques. The data in this evaluation study were collected through questionnaires, interviews, and observations. The sample in this study consisted of 30 high school Geography teachers in Brebes Regency, while the sampling technique used was disproportionate stratified random sampling. Regardless of the results of the study that Geography teachers had a good understanding of the duties and obligations that had to be fulfilled as professional teachers, that efforts for sustainable professional development had not been fully implemented properly. The result shows that the Sustainable Professional Development efforts carried out by Geography teachers are in the criteria of "Good Enough" with an average score of 66.83 (out of a maximum score of 120). From several programs that are supporting the teachers' professional development, only a few programs are routinely carried out by Geography teachers, including internal coaching by supervisors, Geography subject forum activities, and workshops. Besides, several professional development programs deserve special attention from the government due to the lack of teacher participation, namely apprenticeships, short courses, distance learning, level training, and further education, given that some of these programs provide opportunities for teachers to update and develop their knowledge.

Keywords: *sustainable professional development, professional improvement, geography teachers*

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Introduction

The education world is facing various challenges in the globalization era. Facing the development of the world globally demands preparing competent Human Resources (HR) to be able to compete in the global world. The globalization era is marked by various changes in a relatively fast period time in various fields, especially in terms of the development of science and technology. When people

begin to be required to follow global developments, formal education in schools is believed as the main factor in equipping people with knowledge that continues to evolve throughout life, because through education, people will have a scientific and structured mindset based on existing facts; besides, students will be helped to understand and recognize the science and knowledge that continues to develop (Zubaedi, 2011, p.178).

Concerning the development of education in Indonesia, there have been various changes until 2020, for example, the changing of the education curriculum in Indonesia. These changes are basically aimed at improving the education system in Indonesia to suit the functions and objectives of national education as stipulated in the Law of the Republic of Indonesia No. 20 of 2003 Article 3. Therefore, the education world needs to be more directed so it can facilitate students with educational and learning instruments that enable a more open, creative, and adaptive learning process to change (Mukminan, 2008, p.2).

Efforts in realizing national education goals are undoubtedly inseparable from the learning process because it is the core of the education process in general, and teachers have a very important role in the learning process. Amri and Rohman (2013, p.9) state that the learning process is influenced by several factors: teacher factors, student factors, infrastructure factors, and environmental factors. Through the learning process, there will be a series of activities between the teacher and students in an educational situation to achieve the goals that have been set so that the teacher plays an important role in it. Through the learning process, a teacher can determine what behavior is expected from students after participating in the learning process (Nugroho, 2013, p.2). Basically, the learning process is a concept of receiving and processing information that allows changes in behavior both in biological and emotional aspects (Barron et al., 2015). Based on the aforementioned concept and the learning aspect at school, the process of receiving information is surely two-way, and teachers play an important role in providing information for students.

Teachers progressively carry out mobility and transfer teacher-centered knowledge through a student-centered action that combines student inquiry abilities. Teachers have a role in designing and implementing a more modern educational curriculum in accordance with the era. Thus, it can meet students' learning needs to explore the environment and observe through aspects of various scientific studies (Chang et al., 2015, p.178).

Based on the regulation of the Minister of National Education No. 16 of 2007 concerning Academic Qualification Standards for professional competencies that must be possessed by Geography subject teachers include: First, mastering the nature of the scientific structure, scope, and geographic objects. Second, differentiating geographic approaches. Third, mastering geography material broadly and deeply. Fourth, showing the benefits of geography subjects.

Moreover, teachers' competence and performance must be improved so that their strategic and determinant role makes education successful. As explained by Anggraini et al. (2020), the importance of increasing teacher competence and performance is that teachers with good quality will produce quality generations who are ready to face all difficulties and challenges in life.

Uerz et al. (2018, p.18) explain that the important aspects for measuring teachers' competence are technology ability, pedagogical competence, and the use of educational technology about teaching and learning and professional competence in learning. Meanwhile, based on the Law of the Republic of Indonesia concerning Teachers and Lecturers, it is stated that an educator has at least four competencies, namely: pedagogical competence, social competence, personality competence, and professional competence. Teacher competence describes the theoretical and empirical knowledge of a teacher and is related to aspects of skills, personality, awareness, and willingness of teachers to self-development and how teachers contribute to student education and self-development (Semradova & Hubackova, 2014, p.437).

Akhmetova et al. (2013, p.77) explain that professional competence is a standard that integrates the subject approach and subject matter in an educational unit. Agree with that, Lauermann and König (2016, p.9) explain that teachers' professional development, which covers their professional knowledge, skills, beliefs, and motivation, is an integral aspect that a professional teacher must own. Meanwhile, Niemi et al. (2016, p.471) argue that professional competence is related to teachers' main duties and responsibilities both at school and in the community.

Jailani (2014, p.4) explained that, basically, professional teachers are teachers who have a collective and complete awareness of their position as educators. A teacher's professionalism is an important component in order to describe effective learning (Kulshresta and Pandey, 2013, p.33). In addition, increasing teacher competence and performance can be realized through various practices and professional development training. Jayatilleke and Mackie (2013, p.312) reveal based on their findings that professional development can be through the implementation of training or practice in accordance with the discipline of knowledge. It is also supported by Visković and Jevtić (2017, p.1573) that professional development can be developed through professional training by combining aspects of theoretical knowledge, practice, and discussion well as the implementation of workshops.

Improving the quality of education is needed along with the development of science and technology. As a component that plays the most important role in a learning process, the teacher must continue to improve his understanding of professional standards' demands, so the teacher can carry out his duties optimally and with direction. This was also confirmed by Rohmah (2016) research results, who stated that sustainable professional development must be carried out in accordance with the standards of professional demands and the need to support their professional development. The need referred to is the efforts to achieve and/or increase competence above the teaching profession's competence, thus, they affect the promotion or functional position of a teacher.

Sustainable professional development, as mandated in the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 16 of 2009 concerning Teacher Functional Positions and Credit Score, is the implementation of teacher competency development to meet the needs and requirements of professional standards which are carried out gradually and continuously to increase his professionalism. The efforts for sustainable professional development can include: (1) Self-development; (2) Carrying out scientific publications; and (3)

Find and/or create innovative work. More specifically, Mudlofir (2012, pp.133-134) explains as follows.

...strategies and techniques to increase teacher professionalism can be reached through the following activities: (1) In-house training (IHT), (2) apprenticeship programs, (3) school partnerships, (4) distance learning, (5) tiered training, (6) short courses at Universities or other educational institutions, (7) internal guidance by schools, (8) further education, (9) discussion of educational issues, (10) seminars, (11) workshops, (12) research, (13) writing books/teaching materials, (14) making learning media, and (15) making technological works/works of art.

Seeing the demands that teachers must fulfill to meet professional qualification standards requires the participation of related agencies to support and facilitate concerning efforts for sustainable professional development. We need an evaluation to determine how the implementation of sustainable professional development improves teacher professionalism. Thus, it can be seen that the efforts to implement Sustainable Professional Development still need to be optimized to improve teacher professionalism.

Based on the study of the background that has been described, this research was specifically carried out to know: (1) Implementation of sustainable professional development by high school geography teachers in Brebes Regency; (2) the role of the government in supporting the sustainable professional development of high school geography teachers in Brebes Regency; and (3) the efforts to improve the professionalism of geography teachers.

Method

The research method used was the descriptive quantitative method with percentage descriptive analysis techniques. The researchers intended to find out and describe how sustainable professional development for senior high school Geography Teachers is implemented in Brebes Regency. This study was a descriptive research using a survey method because the data studied were based on facts that occur in the field. The study results de-

scribed quantitative data related to the state of the subject or the phenomenon of a population. The data consisted of teacher understanding of the duties and responsibilities of being a professional teacher, and an overview of the implementation of sustainable professional development for high school Geography Teachers in Brebes Regency

The evaluation model used in this study was the discrepancy model based on Malcolm Provus. Evaluation of the discrepancy model was carried out to determine the suitability of the standards that had been set in the implementation of teacher professional competence and implementation in the field (Muryadi, 2017, p.4). The standard measured in this evaluation study was whether or not the professional development efforts of geography teachers corresponded to the Regulation of the Minister of National Education No. 16 of 2007. Determination of program achievement effectiveness was seen from the suitability of research data with predetermined standard indicators related to the implementation of sustainable professional development as regulated in the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform No. 16 of 2009 on Teacher Functional Position and Credit Score. The research was carried out in 17 senior high schools (*sekolah menengah atas* or SMA) in Brebes Regency, consisting of 11 public SMA and six private SMA. The target objects in this study included all teachers who taught high school geography subjects in Brebes Regency. The sample size in this evaluation study was 30 respondents. Baley (Mahmud, 2011, p.33) stated that research using statistical data analysis must have a sample of at least 30 respondents.

Table 1 shows the specific details of the classification of the research respondents.

The data collection method used was the data source triangulation technique involving the geography subject teachers, the principal, the geography subject teacher supervisor, and the head of the Geography subject teachers forum. The instruments used in data collection were closed questionnaires that had been tested for validity and reliability, interviews, and observations. The research results were processed using the percentage of descriptive analysis techniques.

The questionnaire employed to measure teacher understanding variables toward professional competence in its preparation was based on established standards as regulated in the Regulation of the Minister of National Education No. 16 of 2007 concerning teaching qualification and competency standards. The standards for professional competence achievement indicators are shown in Table 2.

Data analysis was performed using the descriptive percentage method with scoring techniques based on the Likert scale. The assessment categories were positive to negative. The assessment categories were classified into four, namely: (1) Very Good; (2) Good; (3) Good Enough; (4) Not Good (see Table 3 and Table 4). Thus, it can be studied the professional development efforts that still need to be developed to improve geography teachers' professionalism. The formula used for descriptive percentage analysis is presented in Formula (1), where n = score obtained, and N = the total score (Ali, 2013, p.201).

$$\% = \frac{n}{N} \times 100 \% \dots\dots\dots (1)$$

Table 1. Classification of Research Respondents

School Status	School Accreditation	Teacher Employment Status		Total
		Government Employees	Non-Government Employees	
Public	A	12	11	23
	B	1	–	1
	C	–	–	0
Private	A	1	1	2
	B	–	3	3
	C	–	1	1
Total		14	16	30

Source: Research, 2020

Table 2. Criteria of Success for Teacher Professional Development Understanding

No.	Professional Competence Indicators (the Regulation of the Minister of National Education No. 16 of 2007)	Criteria of Success
1.	Mastering the scientific material, structure, concepts, and mindsets that support the subjects being taught	<ul style="list-style-type: none"> - Being able to understand and apply the nature of the scientific structure, scope, and geographic objects in geography learning. - Being able to understand and apply the educational foundation both philosophically and psychologically.
2.	Mastering competency standards and basic competencies of the subjects being taught	<ul style="list-style-type: none"> - Being able to handle the subject or field of study assigned to him. - Being able to understand and apply appropriate teaching methods. - Being able to carry out learning following the learning objectives and design.
3.	Developing creative learning materials	<ul style="list-style-type: none"> - Being able to determine and provide geography subject matter creatively by the students' level of development. - Being able to use and modify various learning tools and media and other learning facilities.
4.	Developing professionalism sustainably by taking reflective action	<ul style="list-style-type: none"> - Being able to carry out learning evaluations. - Being able to take advantage of the results of self-reflection to improve professionalism. - Being able to carry out classroom action research for professional improvement. - Being able to follow the information on science and technology developments as an effort for self-development and professionalism.
5.	Utilizing information and communication technology to develop themselves	<ul style="list-style-type: none"> - Being able to take advantage of information and communication technology in communicating. - Being able to take advantage of information and communication technology for self-development.

Source: The Regulation of the Minister of National Education No. 16 of 2007

Table 3. Frequency Distribution Criteria of Professional Competence Understanding of High School Geography Teachers in Brebes Regency

No	Interval Score	Percentage (%)	Criteria
1.	55.25 - ≤ 68	81.25 - ≤ 100	Very Good
2.	42.50 - ≤ 55.25	62.50 - ≤ 81.25	Good
3.	29.75 - ≤ 42.50	43.75 - ≤ 62.50	Pretty Good
4.	17 - ≤ 29.75	25 - ≤ 43.75	Not Good

Source: Research Data, 2020

Table 4. Frequency Distribution Criteria of Professional Development Efforts of High School Teachers in Brebes Regency

No.	Interval Score	Percentage (%)	Criteria
1.	97.5 - ≤ 120	81.25 - ≤ 100	Very Good
2.	75 - ≤ 97.5	62.50 - ≤ 81.25	Good
3.	52.5 - ≤ 75	43.75 - ≤ 62.50	Pretty Good
4.	30 - ≤ 52.5	25 - ≤ 43.75	Not Good

Source: Research Data, 2020

Findings and Discussion

Professional competence in its implementation must be balanced with the continuous development of these competencies as an

effort to increase teacher competence and performance. Besides, development is carried out to maintain professional competence following developments in science, technology,

arts and culture and/or sports. Teachers are actively guided in sustainable professional development by learning from various sources. Thus, it can add insight and experience to help in his professional development.

Based on the research results, the teacher's understanding of the duties and responsibilities of being a professional teacher showed good criteria with an average score of 54.7 (from a maximum score of 68). A good professional understanding means that the teacher understood the main duties and responsibilities to be seen as a professional teacher. An overview of professional understanding is described in Table 5 and Figure 1.

If teachers understood their professional duties, they also understood the criteria that ought to be met as a professional teacher. It covered an understanding of how a teacher's main tasks start from compiling lesson plans, implementing learning, and carrying out learning evaluations. This was also supported by information in an interview with the head of Geography subject teachers forum in Brebes Regency who stated, "In terms of mastery of geography subjects, the geography teachers in

Brebes Regency are surely very good and correspond to the standards." It was also supported by the statement of Mrs. Evi as the supervisor of geography teachers at high school in Brebes Regency as follows.

The mastery of geography subjects is quite good, it is also seen on the recap of the results of teacher competency test scores. Even though the scores are not high enough, yet it has reached at least the minimum threshold criteria, so, there must be further professional development.

However, regardless of the teachers' understanding of their professional competence, which meant good, sustainable professional development efforts ought to be maximized in its implementation in order to improve teacher professionalism. Susan (2012, p.36) explains that although the student learning process in practice had developed well over the last few decades, the approach to educators' professional development had lagged. Thus, it was needed consistency of related agencies in the implementation of professional development.

Table 5. Understanding of the Professional Competence of High School Geography Teachers in Brebes Regency

No.	Interval Score	Percentage (%)	Criteria	F	%
1.	55.25 -≤ 68	81.25 -≤ 100	Very Good	14	47
2.	42.50 -≤ 55.25	62.50 -≤ 81.25	Good	16	53
3.	29.75 -≤ 42.50	43.75 -≤ 62.50	Pretty Good	0	0
4.	17 -≤ 29.75	25 -≤ 43.75	Not Good	0	0
Amount				30	100

Source: Research Data, 2020

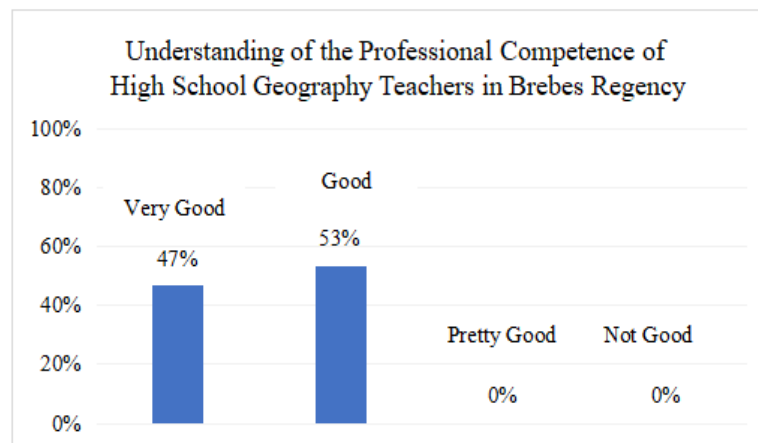


Figure 1. Diagram of Understanding of Teacher Professional Competence

Source: Research Data, 2020

It is also confirmed by the research results of Ghaikhorst et al. (2014, p.53), that professional development programs had a very positive impact on teacher knowledge and self-improvement of a teacher. In addition, Kabadayi (2016, p.8) explained that to achieve professional standards, teachers were required to equip themselves with professional skills and competencies so that they could carry out their main duties and obligations as a professional teacher.

Efforts to develop high school geography teachers' professional competence in Brebes Regency consisted of two types, namely, efforts provided by agencies and efforts carried out by the geography teachers themselves. Professional development efforts facilitated by related agencies or institutions that are included the implementation of in house training (IHT) or education and training, internships, distance learning, tiered training, short courses, internal coaching, further education, seminars, workshops, research, equivalency programs, supervision, subject teachers forum, and teacher symposiums. Meanwhile, geography teachers' efforts independently/individually included reading journals/scientific papers, following actual news, participating in

professional organizations, and collaborating with peers. In connection with the efforts that are made for professional development either conducted individually or through agencies, Table 6 presents the results of research on the involvement of geography teachers in professional development/improvement efforts.

The research results described in Table 6 show that the sustainable professional development efforts done by geography teachers showed the criteria of "good enough" with the average score obtained was 66.83 (out of a maximum score of 120). Based on the research data, it could also be seen that sustainable professional development efforts by carrying out further education were the efforts with the lowest score. This showed that the lack of teachers who decided to join further education—carrying out further education in addition to updating educational level qualifications so that it could show the competence of a teacher professionally. Further, Kunter (2013, p.283) stated in his findings that professional competence developed through various active advances in the learning process, and individual characteristics greatly affected the teacher's individual attitude in taking advantage of these opportunities.

Table 6. Implementation of Sustainable Professional Development Efforts

No	Sustainable Professional Development Efforts	Criteria	Total Score(N)	% (from $\Sigma N=120$)
1.	<i>In House Training</i> (IHT)	Good	82	68.33
2.	Internship	Not Good	30	25.00
3.	Distance Learning	Not Good	35	29.17
4.	Tiered Training	Not Good	40	25.00
5.	Short course	Not Good	41	34.17
6.	Internal Training	Very Good	98	81.67
7.	Further Education	Not Good	31	25.83
8.	Seminar	Pretty Good	68	56.67
9.	Workshop	Good	88	73.33
10.	Research	Good	78	65.00
11.	Equalization Program	Pretty Good	54	45.00
12.	Supervision	Good	83	69.17
13.	Geography Subject Teachers Forum	Good	85	70.83
14.	Teachers Symposium	Pretty Good	73	60.83
15.	Reading Journals / Scientific Papers	Good	83	69.17
16.	Follow Live News	Good	77	64.17
17.	Participate in Professional Organizations	Good	77	64.17
18.	Collaborating with Peers	Good	90	75.00
	Average	Good Enough	66.83	55.70

Source: Research Data, 2020

From all programs in professional development efforts that teachers must implement, only a few programs had been implemented properly by them, including internal coaching activities that were usually directly given by the principal to geography teachers. This internal coaching was very important in evaluating teachers' professional competence considering that the principal, who was a supervisor, certainly understood the teachers' competence in implementing the learning activities. It is also confirmed by Shagrir (2012) that mentoring activities motivated teachers to self-evaluate and improve the quality of their teaching because mentoring/counseling allowed teachers to get guidance in meeting the demands of professional standards.

Professional development efforts could include activities that were carried out independently or organized by related agencies. Based on the results of the research data, it showed that geography teachers had never carried out apprenticeship and tiered training. This was a special concern of the government to further improve the effectiveness of the implementation of the Sustainable Professional Development program. The inadequate implementation of Sustainable Professional Development was also supported by the statement of the Chairman of the Geography subject teachers forum of Brebes Regency, Mr. Budi Raharjo, who explained that:

The teachers' participation in professional development so far is still very low, it can be seen from how disciplined they prepare classroom action research reports. Thus, only subject teachers forum activities are still actively participated in by the teachers until now. There may be some teachers who are actively participating in seminars or other professional development activities but it is very rare.

It was supported also by Mrs. Evi as the supervisor of the geography teacher at senior high school in Brebes Regency as follows.

Professional development that was carried out independently by teachers was still a concern due to the lack of teachers awareness. It must be based on the demands of the profession to attract teachers to actively participating in scientific activities. Apart from that, there were only a few teachers who actively participate even no one of them.

Meanwhile, Table 7 and Figure 2 show the frequency distribution regarding the percentage of professional development efforts of senior high school geography teachers in Brebes Regency. Based on the results, it could be seen that the professional development efforts of teachers with the highest percentage of 50% were included in a good category both in terms of implementation and participation of geography teachers. The program of teachers' professional development efforts, which in its implementation were included in good criteria, are IHT program, workshops, Geography subject teachers forum, reading scientific journals or articles, following the latest news, participating in professional organizations, and collaborating with peers. Meanwhile, the lowest percentage of 5% was included in the very good category, namely professional development efforts in the form of an internal coaching program. This was surely very unfortunate since professional development efforts with very good criteria should have the highest implementation percentage. On the contrary, it got the lowest percentage of teacher participation compared to other criteria.

Table 7. Frequency Distribution of Professional Development Efforts of High School Teachers in Brebes Regency

No	Interval Score	Percentage(%)	Criteria	F	%
1.	97.5 - ≤ 120	81.25 - ≤ 100	Very Good	1	5.56
2.	75 - ≤ 97.5	62.50 - ≤ 81.25	Good	9	50.00
3.	52.5 - ≤ 75	43.75 - ≤ 62.50	Pretty Good	3	16.67
4.	30 - ≤ 52.5	25 - ≤ 43.75	Not Good	5	27.78
Total				18	100

Source: Research Data, 2020

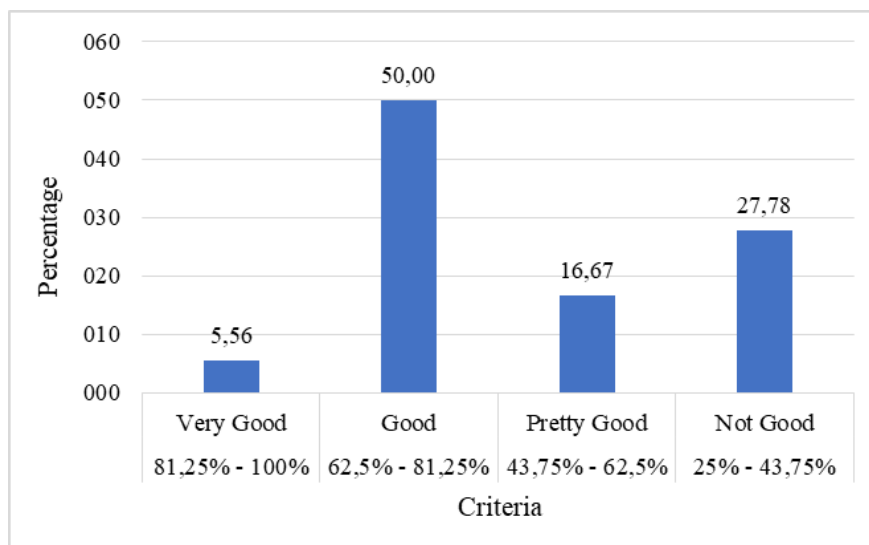


Figure 2. Diagram of Professional Development Efforts of High School Teachers in Brebes Regency

Source: Research Data, 2020

With regard to the results of the research data, there were several efforts for sustainable professional development that still needed to be improved including apprenticeship programs and tiered training. Teachers' minimal participation in various sustainable professional development programs became a particular concern from both schools and other relevant agencies. Mak and Pun (2014, p.5) also emphasized that based on their findings, sustainable professional development for teachers requires commitment from various related elements, such as support from the schools, parents, and also the wider educational community.

In her findings, Smylie (2014, p.108) revealed that there was a lack of clarity in the policies governing the teacher evaluation system, so the effect on the professional development of tenders was still weak. Thus, monitoring policies regarding the teacher evaluation system must be paid more attention, so that its implementation can be maximally implemented. Given that the teacher evaluation process was designed and implemented correctly following the objectives of learning and professional development, it could influence the quality of teaching and enhance student learning achievement (Looney, 2011, p.440). Delvaux et al. (2013, p.1) emphasized that teacher evaluation had a very important role in sustainable professional development.

Teachers' professional development efforts required the school committee's participation in its implementation, so it could run optimally. And programs that supported professional development efforts required supervision from school committees and/or related institutions to evaluate their implementation. It was also emphasized by Kadarwati (2016, p.119) explained that the school committee had a role and responsibility for improving teacher professionalism, including (1) motivating teachers to carry out their teacher responsibilities; (2) assisting teachers in implementing learning following the applicable curriculum provisions; (3) guiding teachers in carrying out learning evaluations; (4) carrying out supervision in the academic/teaching field; (5) equipping skills and knowledge to support professional development.

Meanwhile, Berdiati (2020, p.38) explained that in addition to school committees, supervisors also play an important role in sustainable professional development for teachers, namely: (1) as a motivator, who guided and guided teachers to develop their professionalism; (2) as a facilitator; (3) as supervision in the academic field. Besides, to develop professionalism, a collaboration between educators at the secondary school level and educators at the university level was needed, thus forming a new concept of professionalism in teaching (Herbert and Rainford, 2014, p.243).

Conclusion

Sustainable professional development is needed to improve teachers' professionalism. Referring to the research results, the implementation of professional development for high school geography teachers in Brebes Regency had not been maximal. It can be seen from the results of the study, that there were only 55.70% of high school geography teachers in Brebes Regency who were good enough to actively participate in professional development effort programs. From all programs in professional development efforts, there were only a few programs that most geography teachers routinely joined, including IHT program, internal coaching, seminars, workshops, research, supervision by school supervisors and principals, subject teachers forum, and teacher symposiums. In this case, the government and related agencies' role is needed to provide support and encouragement for professional development programs.

References

- Akhmetova, N. S., Omarova N. N., Kuznetsova, S.V., & Sheveleva, A. N. (2013). Professional competence teacher: Theoretical aspect. *Education and Science Without Borders*, 4(7), 76-79.
- Ali, M. (2013). *Penelitian kependidikan prosedur & strategi*. Angkasa.
- Amri, S., & Rohman, M. (2013). *Strategi dan desain pengembangan sistem pembelajaran*. Prestasi Pustakarya.
- Anggraini, F., Mirizon, S., & Inderawati, R. (2020). Professional development of novice english teacher junior high school. *Jurnal Pendidikan Progresif*, 10(2), 233-249. <https://doi.org/10.23960/jpp.v10.i2.202009>
- Barron, A. B., Hebets, E. A., Cleland, T. A., Fitzpatrick, C. L., Hauber, M. E., & Stevens, J. R. (2015). Embracing multiple definitions of learning. *Trends in Neurosciences*, 38(7), 405-407. <https://doi.org/10.1016/j.tins.2015.04.008>
- Berdiati, I. (2020). Peran pengawas dalam pengembangan keprofesionalan berkelanjutan bagi guru. *Jurnal Diklat Keagamaan*, 16(1), 38-49.
- Chang, Y. -L., Wu, S. -C., & Wu, H. -H. (2015). They are learning: Changes through teacher professional development of inquiry curriculum design and implementation. *Procedia - Social and Behavioral Sciences*, 177, 178-182. <https://doi.org/10.1016/j.sbspro.2015.02.375>.
- Delvaux, E., Vanhoof, J., Tuytens, M., Vekeman, E., Devos, G., & Van Petegem, P. (2013). How may teacher evaluation have an impact on professional development? A multilevel analysis. *Teaching and Teacher Education*, 36, 1-11. <https://doi.org/10.1016/j.tate.2013.06.011>
- Herbert, S., & Rainford, M. (2014). Developing a model for continuous professional development by action research. *Professional Development in Education*, 40(2), 243-264. <https://doi.org/10.1080/19415257.2013.794748>
- Jailani, M. S. (2014). Guru profesional dan tantangan dunia pendidikan. *Al-Ta'lim*, 21(1), 1-9. <https://doi.org/10.15548/jt.v21i1.66>
- Jayatilleke, N. & Mackie, A. (2013). Reflection as part of Continuous Professional Development for public health professionals: A literature review. *Journal of Public Health (United Kingdom)*, 35(2), 308-312. <https://doi.org/10.1093/pubmed/fds083>
- Kabadayi, A. (2016). A suggested in-service training model based on Turkish preschool teacher's conceptions for sustainable development. *Journal of Teacher Education for Sustainability*, 18(1), 5-15. <https://doi.org/10.1515/jtes-2016-0001>
- Kadarwati, A. (2016). The improvement of teaching-learning quality through academic supervision with a classroom visit technique. *Jurnal Studi Sosial*, 1(2), 103-120.

- Kulshresta, A. K., & Pandey, K. (2013). Teacher training and professional competencies. *Professional Competencies*, 1(4), 29-33.
- Kunter, M. (2013). Motivation as an aspect of professional competence: Research findings on teacher enthusiasm. *Cognitive Activation in the Mathematics Classroom and Professional Competence of Teachers*. 273–289. https://doi.org/10.1007/978-1-4614-5149-5_13
- Lauermann, F. & König, J. (2016). Teachers' professional competence and well being: Understanding the links between general pedagogical knowledge, self-efficacy and burnout. *Learning and Instruction*, 45, 9–19. <https://doi.org/10.1016/j.learninstruc.2016.06.006>
- Law of the Republic of Indonesia No. 14 of 2005 on Teacher and Lecturer*, . (2005).
- Law of the Republic of Indonesia No. 20 of 2003 on the National Education System*, . (2003).
- Looney, J. (2011). Developing high-quality teachers: Teacher evaluation for improvement. *European Journal of Education*, 46(4), 440–455. <https://doi.org/10.1111/j.1465-3435.2011.01492.x>
- Mahmud, M. (2011). *Metode penelitian pendidikan*. Pustaka Setia.
- Mak, B. & Pun, S. H. (2014). Cultivating a teacher community of practice for sustainable professional development: Beyond planned efforts. *Teachers and Teaching*, 21(1), 4-21. <https://doi.org/10.1080/13540602.2014.928120>
- Mudlofir, A. (2012). *Pendidik profesional*. PT Raja Grafindo Persada
- Mukminan, M. (2008). Menuju program studi pendidikan geografi FISE UNY yang unggul. *Jurnal Geomedia*, 2(6), 1-12. <https://doi.org/10.21831/gm.v6i2.14538>
- Muryadi, A, D. (2017). Model evaluasi program dalam penelitian evaluasi. *Jurnal Ilmiah PENJAS*, 3(1), 1-16. Retrieved from <http://ejournal.utp.ac.id/index.php/JIP/article/view/538>
- Niemi, H., Nevgi, A. & Aksit, F. (2016). Active learning promoting student teachers' professional competences in Finland and Turkey. *European Journal of Teacher Education*, 39(4), 471–490. <https://doi.org/10.1080/02619768.2016.1212835>
- Nugroho, D.H. (2013). *Strategi pembelajaran geografi*. Ombak.
- Regulation of the Minister of National Education No. 16 of 2007 on Teacher Qualification and Competency Standards*, . (2007).
- Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform No. 16 of 2009 on the Teacher Functional Positions and Credit Score*, . (2009).
- Rohmah, W. (2016). Upaya meningkatkan pengembangan keprofesian berkelanjutan dalam peningkatan profesionalisme guru. *Seminar Nasional Pendidikan*. Universitas Muhammadiyah Surakarta.
- Semradova, I., & Hubackova, S. (2014). Responsibilities and competences of a university teacher. *Procedia - Social and Behavioral Sciences*, 159, 437–441. <https://doi.org/10.1016/j.sbspro.2014.12.403>
- Shagrir, L. (2012). Bagaimana proses evaluasi mempengaruhi pengembangan profesional lima guru di pendidikan tinggi. *Jurnal Beasiswa Pengajaran dan Pembelajaran*, 12(1), 23-35.
- Smylie, M. A. (2014). Teacher evaluation and the problem of professional development. *Teacher Evaluation*, (26)2, 97-111.
- Susan, M. (2012). Sustainable professional development. *District Administration*, 48(10), 36-41.
- Uerz, D., Volman, M., & Kral, M. (2018). Teacher educators' competences in fostering student teachers' proficiency in teaching and learning with technology: An overview of relevant research literature. *Teaching and Teacher*

Education, 70, 12–23. <https://doi.org/10.1016/j.tate.2017.11.005>

Visković, I., & Jevtić, A. V. (2017). Development of professional teacher competences for cooperation with

parents. *Early Child Development and Care*, 187(10), 1569–1582. <https://doi.org/10.1080/03004430.2017.1299145>

Zubaedi. (2011). *Desain pendidikan karakter*. Kencana.