

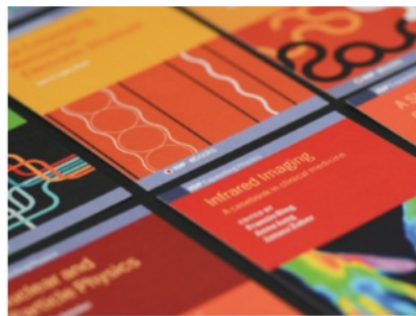
Profile of academic competency

by Sundari Su

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Profile of academic competency of biological teachers certified in teacher certification program on north maluku province

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Abstract. One of indicator that can be used as a measure of the effectiveness of teacher certification policies is the Academic competence of teachers. Descriptive research has been conducted which aims to describe the competency profile of Biology teachers who participated in teacher certification positions at PSG 130 Rayon Universitas Khairun in 2014 and data update in 2018. The data were collected through documentation studies, namely the results of the UKA and UTN documents from the PLPG participants in the field of Biology, interview and questionnaire. Data analysis techniques were conducted in quantitative descriptive. The results of this study indicate: 1) the competency profile of Biology teachers before participating PLPG in the 2014 with 34.3 is categorized as low; 2) the competency profile of Biology teachers after participating in the PLPG with 57.1 is sufficient category; 3) In general, there is an increase in the competency of Biology study teachers after attending the PLPG in 2014 with N-Gain 22.8. At present the average Biology teacher who has been certified has academic competencies that are able to adapt to the development of education in the 21st century.

1. Introduction

Teachers are professions that require professionalism. Teacher certification is the process of providing educator certificates to teachers who have met the requirements. Certified teachers must have academic qualifications, competencies, be physically and mentally healthy and have the ability to realize national education that is in line with proper welfare improvement [1]. Certification for teachers in positions as one of the efforts to improve teacher quality and to improve the quality of education in formal education units sustainably. Teachers in positions that meet the requirements can take certification through: 1) Provision of Direct Educator Certificates, 2) Portfolio, 3) Teacher Professional Education and Training or 4) Teacher Professional Education [3].

North Maluku is one of the organizers of teacher certification in positions through rayon 130 Khairun University Ternate. Teacher Professional Education and Training (PLPG) is one of the patterns in the implementation of teacher certification in a position in 2014 which aims to improve competence,

professionalism, and determine the graduation of certification participants [3]. Teacher competency is a set of knowledge, skills and behaviors that must be owned, lived, mastered and realized by the teacher in carrying out his professional duties [4]. In Law Teacher and Lecturer Number 14 of 2005 concerning teachers and lecturers' article 1 paragraph 10 stated that competence is a set of knowledge, skills and behaviors that must be owned, lived and mastered by the teacher or lecturer in carrying out professionalism [5]. In the Law it is also stated that teacher competence includes personality, pedagogic, professional and social competence. In the implementation of teacher certification in 2014, the quota of certification participants was 441 participants from 9 municipal districts in North Maluku province. The participants in the Biology teacher were 14 teachers. The 2014 PLPG implementation was the last PLPG implementation for biology teachers to carry out teacher certification in positions in North Maluku [8].

The policy of implementing the teacher certification program in office since 2012 has undergone a fairly fundamental change in the implementation of teacher competency testing, namely by applying the Initial Competency Test (UKA) as a requirement for teachers whose certification follows the PLPG pattern. Furthermore, at the end of the PLPG a competency test was conducted which included written test and performance test (practice exam). Written examinations aim to uncover professional and academic competencies, while performance tests are to uncover professional, pedagogical, personality, and social competencies in a holistic manner [3, 10]. This study aims to describe the competency profile of Biology teachers who participated in teacher certification in 2014 positions at PSG Rayon 130 Khairun University. In this study, the final competency test that is used as a comparison to the Initial Competency Test (UKA) is the National Writing Examination (UTN) whose test questions are developed nationally under the coordination of KSG [8]. The results of this competency test, can be used as a reference to analyze the achievements of the academic competencies of teachers, especially of Biology teachers.

Based on the explanation above, it is very important to analyze the achievement of the certified academic competencies of Biology teachers in North Maluku province so that it can be used as consideration for policy programs to improve the quality of education through up to date teacher competencies to date, namely 21st century learning competencies to teachers Certified Biology.

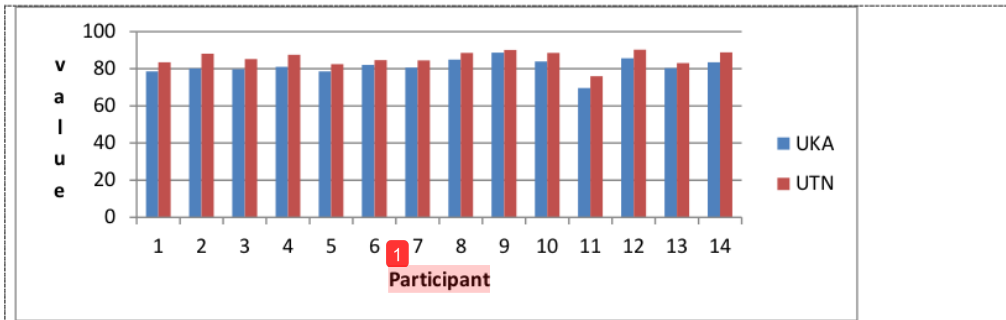
1. Methods

This research is descriptive research with descriptive qualitative and quantitative research methods. The quantitative methods used to make measurements, while the qualitative descriptive method aims to make a description, description or painting systematically, factual and accurately regarding the facts, nature and relationships between the phenomena investigated [7]. The population in this study were all teachers who participated in the PLPG on teacher certification in 2014 in North Maluku Province. While the sample in this study is a Biology study teacher in North Maluku province who participated in the PLPG in teacher certification in 2014. Data collection was conducted done by studying documentation of the value of UKA (Initial Competency Test) and UTN (National Writing Examination). Collecting indicators of understanding of 21st century learning was obtained by interview and questionnaire in 2018. Data analysis techniques were carried out in quantitative descriptive.

2. 3. Result and Discussion

3.1. Profile of Academic Teachers' Competency on the Implementation of the 2014 Certification

Biology Teacher Competency Profile before and after joining the 2014 PLPG on Rayon 130 University Khairun can be shown in figure 1.



Category: Very Low = 0 - 20, Low = 20 - 40, Enough = 40 - 60, Good = 60 - 80, Very Good = 80 - 100

Figure 1. Profile of Academic Competencies of Teachers in Biology Teacher Certification in Position 2014 at Khairun University

Based on Figure 1, in general the competencies of the Biology study teachers before joining the PLPG in 2014 the average score was categorized as low (34.3), while after taking PLPG the average score was categorized as enough (57.1)

3.2. Improvement Academic Competence of Biology Teachers at the Implementation of the 2014 PLPG

The competency of Biology teachers in North Maluku province can be traced from UKA scores (Initial Competency Test) and UTN (National Writing Exams). To determine the increase in teacher competence, we can determine the gain of the normalized score (N-gain). As for more clearly the magnitude of gain normalized scores for each teacher can be seen in Table 1.

Table 1. Increased Competence of Biology Teachers in North Maluku Province After Following the 2014 PLPG

Teacher	UKA	UTN	N Gain	Category
1	78.56	83.56	0.23	low
2	80.15	88.06	0.39	medium
3	79.78	85.18	0.26	low
4	81.12	87.5	0.33	medium
5	78.65	82.47	0.17	low
6	82.1	84.72	0.14	low
7	80.67	84.57	0.20	low
8	84.89	88.5	0.23	low
9	88.64	90.1	0.12	low
10	83.91	88.5	0.28	low
11	69.68	76	0.20	low
12	85.65	90.28	0.32	medium
13	80.36	83.06	0.13	low
14	83.51	88.9	0.32	medium
Average	81.26	85.81	0.32	medium

Based Table 1, it can be shown that the existence of the 2014 PLPG can improve the competence of teachers in the field of Biology in the North Maluku province. The increase in the competence of Biology teachers after participating in the 2014 PLPG can be categorized medium (N-gain = 0.32).

Increasing the academic competence of Biology teachers who carry out teacher certification in 2014 positions in rayon 130 Khairun University in Ternate North Maluku province is known in the medium category. This can be seen in the value profile and N Gain. Academic competence in this study uses the parameters of the value of UKA and UTN with the intention of knowing the knowledge and understanding of biology teachers regarding the current and standardized concepts of biological theory and biological teaching. This is in line with [10, 11, 12, 14] research on the analysis of the ability of Physics teachers who carried out teacher certification in 2012 positions in North Maluku province. A teacher is very important to have academic competencies related to science. Furthermore, with pedagogical and social competencies and personal competence, professional teachers will be created.

States that professionalism is a commitment of a profession to improve its professional abilities and continuously. According to [4,13] in principle, professional teachers are teachers who can carry out their duties professionally, who have characteristics, among others: experts in the field of theory and teacher training and master the knowledge taught and experts teach it.

3.3. Biology Teacher Knowledge About 21st Century Learning

The results of interviews with Biology teachers certified in 2014 about 21st century learning show that of the four indicators of 21st century learning as in Figure 2.

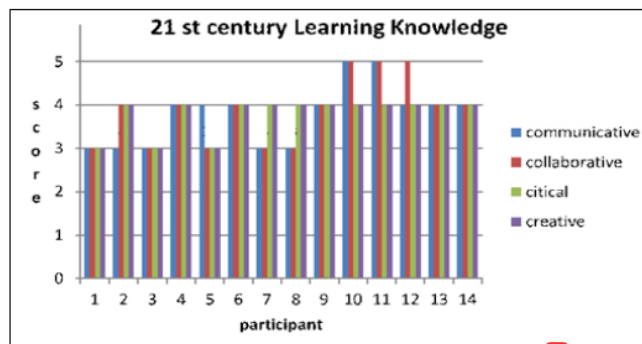


Figure 2. Profile knowledge of biology teacher's about 21st century learning

Based on Figure 2, it can be seen that the performance of most professional (post-certification) teachers in North Maluku, especially Ternate, most of the teachers who have passed the certification and have received professional allowances have quite well understood 21st century learning.

Teacher certification is an effort to improve teacher quality followed by improving teacher welfare, so that it is expected to improve the quality of learning and the quality of education in Indonesia sustainably [3, 14]. The results of this study indicate that the academic competencies of Biology teachers who participated in teacher certification in 2014 in North Maluku Province are still not optimal based on indicators of increasing UKA and UTN values. Knowledge of Biology teachers certified in 2014 shows that the average Biology teacher in North Maluku, especially in Ternate City, is quite understanding the indicators of 21st century learning. Post-certification guidance is needed so that teachers who have been certified adaptive to the development of their knowledge are in line with the opinion [6, 13, 14]. Biology teacher knowledge certified in 2014 concerning 21st century learning is one indicator that certified Biology teachers follow information related to 21st century learning through MCP activities, seminars, workshops and master studies in Biology education.

From the results of this study, it is expected that even though they have passed certification, the teachers need to get ongoing guidance, especially those related to their ability to write scientific papers and conduct research. There needs to be collaboration between the city and provincial education offices and universities to facilitate training in scientific writing and educational research.

4. Conclusion

Based on the results of research and data analysis, it can be concluded as the competency profile of Biology teachers in North Maluku Province before participating in the PLPG on teacher certification in 2014 positions can be categorized as low (34.3). The competency profile of Biology teachers in North Maluku Province after participating in the PLPG on teacher certification in 2014 positions can be categorized as sufficient (57.1). In general, there was an increase in the competence of Biology teachers in the implementation of the 2014 PLPG. The increase in competencies can be categorized as being (N-gain = 0.32) and the Biology teachers who are certified through the 2014 PLPG pattern quite well understand the four indicators of 21st century learning

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Acknowledgments

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