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## TEACHER PROFESSIONAL DEVELOPMENT IN SCIENTIFIC WRITING

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**Abstract.** Teachers as professionals have very important functions, roles, and positions in achieving the vision of national education, namely creating intelligent and competitive Indonesian people. Teachers should develop their profession as a dignified profession. One form of teacher professional development is to write scientific papers, but the reality in the field is that teacher activities are still in the vision and mission of education and teaching while scientific vision and mission in the form of scientific writing and publications are often neglected. This study used a qualitative approach with a descriptive method. The research data were obtained through interviews, document analysis, participation observation, and focus group discussions. The results showed that the difficulties of teachers in writing scientific papers included: low motivation of teachers in writing, not having enough free time, lack of understanding of writing techniques, difficulties in finding data, technological stuttering, not having reference books, widespread writing services, lack of functioning of Subject Teacher Discussion (*MGMP*) activities in socializing writing papers, and lack of socialization from schools/institutions. The efforts that have been made by teachers to develop professionalism through writing scientific papers as a form of professional development were by: attending training/workshops, self-study, participating in competitions/tests. Based on the results of the study, it is recommended to the principal to conduct workshops on an ongoing basis, add library reference books, conduct computer training, apply a managerial reward and punishment pattern, control and monitor the implementation of *MGMP* and control and monitor the activities of the teacher performance appraisal team and the development team. sustainable profession.

Keywords: Professionalism; scientific writing; professional teacher

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### I. INTRODUCTION

Teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, basic education, and secondary education (Law Number 14 of 2005 concerning Teachers and Lecturers).

As a professional teacher, the teacher carries out some duties, obligations, responsibilities, and authorities in accordance with the profession they conduct. As stated in Law Number 14 of 2005 concerning Teachers and Lecturers, it is stated that the main task of teachers is to educate, teach, guide, direct, train, assess, and evaluate students in early childhood education through formal education, basic education, and formal education. Teachers as professionals have very important functions, roles, and positions in achieving the vision of national education, namely to create intelligent and competitive Indonesian people. Therefore, the teaching profession should be developed as a dignified

profession as mandated in Law Number 14 of 2005 concerning Teachers and Lecturers.

Besides, teachers are the spearhead of education. As educators, teachers are expected to have certain competencies in order to be able to educate their students well. According to Law No. 14 of 2005 article 10 paragraph 1, the competencies that must be possessed by teachers include pedagogic competence, personality competence, social competence, and professional competence obtained through professional education.

The government, through the Ministry of National Education as mandated by Law Number 20 of 2003 concerning the National Education System, Law Number 14 of 2005 concerning Teachers and Lecturers, and Government Regulation Number 19 of 2005 concerning National Education Standards, will facilitate teachers to be able to develop sustainable professionalism.

Sustainable professional development is the development of teacher competence which is implemented in accordance with the needs, gradually, continuously to improve their professionalism (Regulation of the state minister for

Administrative Reform and Bureaucratic Reform No. 16 of 2009 article 1).

One type of sustainable professional development is the ability of scientific publications in the form of research results or scientific ideas in the field of formal education. Teachers' scientific papers can be published in the form of research reports or reports/scientific ideas written based on experience and in accordance with the main tasks and functions of teachers (Ministry of National Education, Directorate of Educators and Education Personnel, Book 4: 2011).

Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform No. 16 of 2009, dated November 10, 2009 regarding Teacher's Functional Positions and Credit Scores that one of the professional development activities is scientific publications. Scientific publications are scientific papers that have been published to the public. According to Arikunto, Suhardjono and Supardi, (2009), through the credit score system, it is hoped that a fairer and more professional award can be given to teacher ranks which are professional recognition and will then increase their level of welfare. The credit score can be used for promotions/classes for teachers.

Based on the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform No. 16 of 2009, dated November 10, 2009 regarding Teacher's Functional Positions and Credit Scores, teachers who will be promoted from the rank/position of the First Teacher class III/b to the rank/position of a higher class room require an element of self-development and scientific publications/ innovative work, this is conceived with the intention that teachers can further increase productivity in writing scientific papers from an early age.

Professional comes from the word profession which means a field of work that can be occupied by someone. Profession can also be interpreted as a certain position or job that requires special knowledge and skills obtained through intensive academic education (Kunandar, 2010).

Professional is a job or activity carried out by a person and becomes a source of income for life that requires expertise, proficiency or skills that meet certain quality standards or norms and require professional education (Law Number 14 of 2005 concerning Teachers and Lecturers). So, professional refers to two things, namely the person who performs the job and the appearance or performance of the person in carrying out their duties or work (Daryanto, 2013).

So, a professional teacher is a teacher who realizes that he/she is a person who is called to assist students in learning. Thus, teachers need to continuously develop their knowledge of how students should learn. Its manifestation, if there is a failure in students, teachers are called to find the root cause and find solutions with students, not silence them or even blame them. become a teacher. A teacher who is not willing to learn, cannot possibly feel at home and be proud to be a teacher. Feelings and pride for the teacher is a step to become a professional teacher (Kunandar, 2010).

Furthermore, the quality of teacher professionalism is drawn by five attitudes, namely: (1) the desire to always

display behavior that is close to the ideal standard; (2) the improvement and maintenance of the professional image; (3) the desire to always pursue professional development opportunities that can improve and improve the quality of knowledge and skills; (4) the pursuit of quality and ideals in the profession; (5) the pride in their profession (Sagala, 2009).

To add, professional teachers are teachers who carry out teacher duties with high abilities (profession) as a source of life. In carrying out their professional authority, teachers are required to have a variety of psychological competencies which include: (1) cognitive competence (skills in the realm of creativity); affective competence (sense domain skills); psychomotor skills (intentional domain skills). In addition, there is one competency that teachers need, namely personality competence (Syah, 2011).

Professional teachers are teachers who are aware that they are individuals who are called to assist students in learning. Thus, teachers need to continuously develop their knowledge of how students should learn. Its manifestation, if there is a failure in students, the teacher is called to find the root cause and find solutions with students, not silence them or even blame them. The attitude that must always be fostered is the willingness to recognize oneself and the will to purify the teacher and willing to learn by taking the time to become a teacher. A teacher who is not willing to learn, cannot possibly feel at home and be proud to be a teacher. The feeling and pride of the teacher is a step to become a professional teacher (Kunandar, 2010).

A professional teacher is required to meet a number of minimum requirements, including: having adequate professional education qualifications, having scientific competence in accordance with the field he is engaged in, having good communication skills with his students, having a creative and productive spirit, having a work ethic and high commitment. towards his profession, and always carry out continuous self-improvement through professional organizations, the internet, books, seminars and the like. Teachers must continue to study and write both scientific and popular works for seminars and publications in the mass media as a form of professional development (Daryanto, 2013).

In addition, Law Number 20 of 2003 concerning the National Education System, emphasizes that educators are professionals who are tasked with planning and implementing the learning process, assessing learning outcomes, conducting mentoring and training, as well as conducting research and community service.

In respect to professionalism, teacher cannot be separated from the competence. Based on Law No. 14 of 2005 concerning Teachers and Lecturers article 1 paragraph 10 it is stated, "competence is a set of knowledge, skills, and behaviors that must be possessed, internalized, and controlled by teachers or lecturers in carrying out professional duties". Meanwhile, the competence of teachers according to Law Number 14 of 2005 Article 10 paragraph 1 is pedagogic competence, personality competence, social competence, and professional competence obtained through

professional education. One of the efforts to improve teacher professionalism is through teacher professional development activities. One of the teacher's professional developments is through writing scientific papers.

Scientific writing is a work that contains and examines a particular problem using scientific principles. The scientific rule is that scientific work uses scientific methods in discussing problems, presents studies using standard language and scientific writing, and uses scientific principles that are objective, logical, empirical, systematic, straightforward, clear and consistent (Prayitno, et al. 2001).

Scientific writing is expected to be written by teachers to develop themselves and to publish to the public as a form of teacher contribution to improving the quality of the learning process in schools and the development of the world of education in general and to obtain credit scores in accordance with the Regulation of the Minister of State for Empowerment of State Apparatus and Bureaucratic Reform No. 16 of 2009 concerning Teacher's Functional Positions and Credit Scores is a scientific publication.

Sustainable professional development is one of the components in the main element for which credit points will be awarded. The type of continuous professional development consists of two sub-elements. The first sub-element is self-development and the second is scientific publications and/or innovative works. Scientific publications include: (1) Presentations on scientific forums, namely the presentation of an article in the form of a paper containing a summary of research results, ideas, reviews, or scientific reviews; (2) Scientific publications of research results or scientific ideas in the field of formal education, including: research paper reports (for instance Classroom Action Research), scientific reviews, popular scientific writings, and scientific articles; (3) Publication of textbooks, enrichment books, and/or teacher guidelines includes: textbooks, learning modules/dictations, translation works, and teacher manuals (Guidelines for Sustainable Professional Development Activities, book 4, Ministry of National Education, 2011).

From the results of preliminary studies in the field so far, it is observed that most of the activities of teachers in schools are more oriented to the mission of education and teaching in the classroom, while the scientific vision and mission in the form of writing and scientific publications are often neglected. The implication of this fact is that the writing and publication of scientific works among teachers is still a concern. This is indicated by the low productivity of teachers in writing and publishing scientific papers. This condition is in accordance with the statement of Sugijanto, Head of the Center for Books at the Ministry of National Education quoted by Nugroho (2010) that no more than 1% of teachers can write.

The low productivity of teachers in writing scientific papers is due to the inhibiting factors in writing. It is undeniable that the writing culture of the Indonesian people, especially teachers, is still low, of course there are factors that cause difficulties for teachers to write scientific papers that need to be studied.

## II. METHODS

This type of research was descriptive qualitative design, in the form of an analysis of the causes of junior high school teachers in Singkawang City in writing scientific papers as one of the development of teacher professionalism. The research subjects were junior high school teachers in Singkawang City. Data collection techniques used interviews, document analysis, participatory observation, and Focus Group Discussion (FGD), the data were, then, analysed through: data reduction, data display or presentation, and drawing conclusions and then verified. The validity of the data in this study was carried out by extending the involvement of observations, persistence of observations, triangulation, peer debriefing, adequacy of references, negative case analysis, and member checks (Webb in Ghony et al, 2012).

## III. RESULT AND DISCUSSION

Teachers' difficulties in writing scientific papers were divided into two types, namely difficulties that came from the author (internal) and difficulties caused by outside the author (external).

Difficulties that came from the author (Internal): Motivation was the main factor that could move a person's heart to be able to do a good or bad job, which came from within the individual itself (internal motivation) and from outside the individual (external motivation). How strong an individual's motivation determined the quality of behavior displayed, both in the context of study, work and other life. The teachers at the research sites that the researchers were currently doing, most of them felt lazy to write because they did not know how to write scientific papers. The limited time to write was often as the main obstacle in writing scientific papers. It could not be denied that writing does require sufficient free time and a strong will. These two things, namely free time and self-will/motivation, should be possessed by every individual. How much free time is available but if there is no self-will/motivation, it will certainly not produce a written work, as the following informant said. Lack of knowledge, understanding, and skills of teachers in writing scientific papers as well as unclear writing techniques make many teachers reluctant to start or write papers. Basically, teachers were not accustomed to writing, they did not understand what kind of classroom action research (CAR) writing was.

Based on research data, most of the junior high school teachers in Singkawang City had just written scientific papers in the type of classroom action research since to conduct the research in the field, data collection was often experienced difficult. This reason was found since the teacher's role was not only conducting the research but also a teaching, so that a lot of data were missed. In the current technology era, teachers did not eager to develop their competence to utilize technology such as operating a computer. Based on the results of the study, there were still some junior high school teachers in Singkawang City who could not operate computers (lack of knowledge in term of

technology) as one of the reasons why teachers were reluctant to write.

The external difficulties in the form of: availability of Reference Books; preparation in writing became the factors that were widely spoken by informants. Preparation in this case included the presence of supporting books as reference material when writing since writing activities could not be separated from the existence of reference books in the school library or one's own . The rise of writing services; from the results of document analysis in the form of application/results of teacher work assessments from the Ministry of National Education, the sub-section of Teacher Functional Personnel in the Position Transfer Section and Non-Lecturer Functional Personnel of the Personnel Bureau, it was found that information that the CAR that had been owned or made to be submitted as one of the requirements promotions indicated genuine 'asphalt' but fake. Furthermore, based on the results of interviews, researchers obtained data that writing essay writing services were indeed chosen by many teachers because they were related to the next series, namely the ease of obtaining a decision letter about promotion. Teachers who used the straight, honest path, the result of their own work, did not get convenience in matters of promotion and lose to teachers who use informal channels. This was the reason why teachers preferred using the services of writing essays which were at the same time as management of the level increase to having to make and prepare by them themselves. Lack of Functioning of *MGMP* Activities; The Subject Teacher Discussion (*MGMP*) which should be a forum for teachers to exchange information and discuss problems faced by teachers in schools turns out to be in every *MGMP* activity only discussing matters related to learning problems such as: making syllabus, lesson plans, exam questions, assessments, and new things such as the 2013 curriculum. The issue of writing scientific papers as continuous competency development was rarely discussed at *MGMP* meetings. Until the time the researchers obtained this information, the *MGMP* activities rarely discussed issues related to writing scientific papers. The main cause of this lack of socialization was due to limited time for activities, limited resources, and lack of discipline among members when attending *MGMP* activity meetings. Lack of Socialization from Institutions/Schools; Socialization of activities was thing that could break down misunderstandings or confusion in implementing the tasks. The confusion of the teachers in writing scientific papers was also caused by the lack of providing socialization about the techniques of writing scientific papers, especially CAR so that an understanding of the writing procedure desired by the assessment team was never obtained by the teacher from the school.

Based on the data described above, it can be summarized as the following chart:

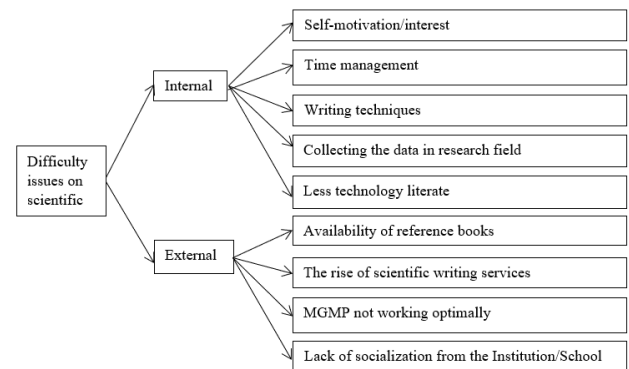


Figure 1. Classification by difficulty issues on scientific writing

Classification in accordance to age, it shows that the difficulties of teachers in writing scientific papers as one of the professional developments can be described as follows: (1) Lack of motivation or laziness. Teachers aged 39-47 years said that feeling lazy to write was influenced by busyness in the household while teachers aged 51-58 years explained that being lazy to write scientific papers was influenced by body health such as the eyes were not clear enough to read or write and also decreased the memory. (2) difficulty in operating a computer. Teachers aged 51-58 from the results of in-depth interviews proved more difficult than teachers aged 39-47 years. (3) Difficulties in the procedure for writing scientific papers, especially CAR. Teachers aged 51-58 proved more difficult than teachers aged 39-47. Unaccustomed to writing was the cause of ignorance of procedures in writing scientific papers. Classification according to gender, the difficulty of teachers in writing scientific papers as one of the continuous professional developments, between female teachers and male teachers were not very significant. Both female and male teachers experienced various difficulties.

### The Efforts of Junior School Teachers in Singkawang City in Developing Teacher Professionalism through Writing Scientific Papers.

The results of this study indicated that the efforts that had been made by teachers include: Workshop/Training as an effort to minimize the difficulty of writing CAR among teachers as one of the sustainable professional developments. Most teachers tried to take part in training activities/workshops which were followed on their own initiative at their own expense as well as assignments from schools/institutions. Learn on my own; another effort that had been made by the teacher to develop the ability of teachers to write scientific papers, especially CAR, was by self-study and looking for examples of CAR from the internet. These CAR samples were then used as a teacher's reference for writing; besides that, it also fosters self-motivation by applying the motto 'Write what you do and do what you write'. Take the Test; Basically, one of the requirements for participating in the selection of exemplary teachers and/or prospective principals, participants were required to write a scientific paper that can be presented during the interview test. On this basis, teachers were

required and encouraged to write scientific papers. In this way, whether or not the teachers were eager, whether or not the teachers liked, the teacher really had to write a paper if they want to be successful.

#### IV. CONCLUSIONS

In general, the professional development of junior high school teachers in Singkawang City in writing scientific papers, is still lacking and needs serious attention and guidance. There are still many junior high school teachers in Singkawang City in writing scientific papers as an effort to develop the teaching profession, experiencing various difficulties. Lack of motivation/interest in writing is caused by various issues faced by teachers, including: teacher motivation in writing is still low, does not have enough free time, lack of understanding of writing techniques, difficulties in data collection, lack of technology literacy, lack of reference books, the proliferation of writing services, the lack of functioning of MGMP activities in socializing writing papers, and the lack of socialization from schools/institutions.

Most of the junior high school teachers in Singkawang City have difficulty writing scientific papers due to internal and external factors. In terms of age, junior high school teachers in Singkawang City aged 51-58 years have more difficulty writing than teachers aged 39-47 years. From gender, the difficulty of teachers in writing scientific papers, there is no significant difference between male and female teachers. Both have almost the same difficulty. Efforts to develop teacher professionalism through writing scientific papers have been carried out by participating in workshops both independently and from institutions, self-study via the internet, and by taking tests that require scientific writing results. Based on the results of the study, it is recommended to the principal to conduct a sustainable workshop, add library reference books, conduct computer training, apply a managerial reward and punishment pattern, control and monitor the implementation of MGMP and control and monitor the activities of the teacher performance appraisal team and the development team of sustainable profession.

#### ACKNOWLEDGMENT

The authors would like to thank the Institute for Research and Community Service (LPPM) IKIP PGRI Pontianak for the financial support through Basic Research program number: 028/L.202/PNK/IV/2021.

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