

Continuous Professional Development for Teacher Through Scientific Publications

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Abstract—The research focuses on analysing the needs of continuing professional development for teachers through scientific publications. This attempts to improve mastery of science and skills in carrying out lifelong learning for teachers. Taken purposively among 40 teachers on SMP Darul Hikam School, the current article uses a qualitative approach with a case study focused on the need of teachers' continuing professional development in scientific publications. The qualitative and quantitative research data is collected through questionnaires, interviews, observation and documentation. Quantitative data obtained from the teachers are through a closed questionnaire, in this regards information needs are supplemented by data through interviews, observation and documentation. In other words, the process shows that data analysis is conducted using triangulation techniques. Based on results obtained in this line of research, the present study disclosed that continuing professional development for teachers at SMP Darul Hikam School is scientific publications training, especially in preparing ideal modules or guidebooks and writing skills in scientific articles from Classroom Action Research (CAR). From the results of the study it can be concluded that continuing professional development for teachers through scientific publications still needs to be improved and has received considerable attention both individually (teachers) and institutions.

Keywords—continuing professional development; scientific publications; teacher

I. INTRODUCTION

Teachers play an important role in the teaching and learning process. Teacher quality matters. In fact, it is the most important school-related factor influencing student achievement [1]. In this respect, Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers explains that teachers are professional educators with the main task of educating, teaching, guiding, directing, training, conducting evaluation, and evaluating students in early childhood education in formal education, elementary education, and secondary education.

The Law number 14 of 2005 a professional teacher has at least pedagogical competence, personality competence, social competence, and professional competence. A professional educator as someone who professionally has the knowledge, skills and professional attitudes and demonstrate loyalty develop their profession, participate in communicating

professional development efforts and cooperate with other professions [2]. With regard to this issue, the teaching profession is simply related to the ability of teachers to carry out their roles and functions and how they behave in schools and community with positive values, attitudes and behaviors they expect from students [3] such as flexibility, humorous, patient, fair, enthusiast, attention, and provide interest contribute to the effectiveness of learning [4].

From such observations, teacher professional development means teacher learning which is about how teachers expand their knowledge and skills and apply them to support student learning [5]. At this point, someone tried to examine the concept of "learning" in this context from the cognitive-constructivist paradigm called learning actively takes place through mental stimulation and the search for meaning in social interaction [6]. Thus the teaching and learning process can involve in a variety of ways, both formal and informal, for example in schools when they reflect their own learning process and reflect on the learning process of co-workers, learning from unplanned conversations among teachers, or learning from parent-meeting teachers or professional organizing training.

The implementation of the program of continuing professional development for teachers is expected to improve teacher basic competencies and support the Professional Development of Learning for Teachers [7]. In the guidebook for Continuing Professional Development (CPD) for teachers, it is explained that continuing professional development falls into self-development activities, scientific publications and innovative work.

TABLE I. CONTINUING PROFESSIONAL DEVELOPMENT (CPD) FOR TEACHERS

No	Elements of Continuing Professional Development	Coverage
1	Self-development activities	Participate in functional training Carry out teacher collective activities
2	Scientific publications	1) Making scientific publications from research results 2) Making book publications
3	Innovative work	Finding appropriate technology Finding / creating artwork Make / modify learning tools Participate in development, preparation, standards, guidelines, questions and the like.

A study conducted that Continuing Professional Development in Making Scientific Publications for High School Teachers through Workshops and mentoring has increased teacher's knowledge and improved their professional competence in creating scientific publications [8]. Furthermore, a model of developing teaching profession founded that effective teacher professional development can be developed with the support of policies, morals, infrastructure, and finance [9].

From the previous study it was discovered that 96 percent of teachers strongly agreed that self-development activities are kind of an integral part that could not be separated from teachers and in turns the rest 94 percent are necessary upon self-development programs to increase their professionalism. Therefore based on results obtained in this line of research, research on this issue has been mostly conducted in such obvious issue and has objectives to analyze the needs of teacher professional development programs through scientific publications.

II. RESEARCH METHOD

The current study used a qualitative approach with a descriptive with a case study focused on the need of teachers' continuing professional development in scientific publications on 40 people. The research subjects were taken by purposive sampling among the teachers in SMP Darul Hikam School. The research data in the form of qualitative, were collected through questionnaires, interviews, observation and documentation. Data needs were obtained from teachers through closed questionnaires in the form of quantitative data, then information needs were also supplemented by data through interviews, observation and documentation. Quantitative data were analyzed using descriptive statistical analysis, by concentrating the answers to the Likert scale questionnaire. Nonetheless qualitative data were analyzed through data reduction steps, data presentation and data verification. Data reduction was performed by analyzing various answers, by summarizing all data, sorting and selecting and focusing on the obvious issues. Data were presented by providing an understanding of the issues, as well, the researchers planned to simply conduct further actions based on the meaning of issues. With drawing initial conclusions are

temporary and might change once considerably strong evidence is found in subsequent data collection.

III. RESULTS AND DISCUSSION

Basically, Continuing Professional Development activities (PKB) include self-development, scientific publications and innovative works. Contradicting the development of teaching profession, based on report that teachers in Indonesia feel pressured by the Ministry of National Education to cover and transfer the formulated curriculum and subject-content [10]. In addition, most teachers throughout the world feel that professional development activities are too short, not related to teacher's needs and not effective in improving teaching knowledge and skills [11].

This study is carried out to analyse the needs of professional development for teachers through scientific publications. With regard to the fact that, scientific publications are scientific writings in the form of research findings and books published to the public, through presentations at scientific forums, publication of research results in scientific journals, learning modules or dictates and textbooks. The results of the questionnaire about scientific publications that have been carried out by the teachers are presented in the following figure:



Fig. 1. Results of teacher's scientific publication.

From the figure 1, it can be figured out that the scientific publication activities by teachers fall into at least four categories, presentations at scientific forums, publication of research results in journals, compiling modules or learning dictates and textbooks on ISBN. From the survey results, several teachers as the subjects of the study, from 80 percent has compiled modules or learning dictates, including very high categories, while teachers who published research findings through presentations at scientific forums and published research results in journals and compiled textbooks The National Budget has only reached 59 percent, this is included in the fairly high category.

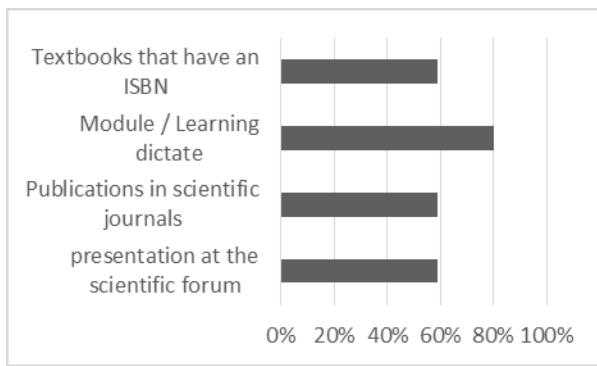


Fig. 2. Module / dictate of learning.

From the results of interviews with the Principal, information was obtained that the high number of modules or learning dictates among teachers was encouraged by the school program in "school curriculum redesign" where the progress of module preparation up to now has reached 100 percent, grade VIII and VII has reached 85 percent.

analysis that the teacher's status in Darul Hikam Middle School is categorized as a Foundation Permanent Teacher (GTY), Full Honorary Teacher (GHP), (GK) and then Non-civil servant teachers or Extraordinary Teacher (GLB). Continuing professional development is carried out through the implementation of scientific publication training. In this regards, the training and development draws attention to improve work effectiveness in achieving predetermined work results [12], while the purpose of training is to increase knowledge, skills and change attitudes [13]. From these definitions, it can be formulated that the purpose of training scientific publications is to develop the knowledge, skills and attitudes of "teachers and learners" in conducting research and compiling scientific writing and publications.

Based on processing and analysing data in this line of project, the training needed by the teacher is divided into two categories, (1) Skills in arranging modules or ideal learning dictates (according to the guidebook of the Ministry of Education and Culture of the Republic of Indonesia). This need is also identified from the results of interviews with school principal who has provided information that there are still teachers who has difficulties in developing good learning modules. (2) Skills for writing scientific articles from Classroom Action Research (CAR). This obvious need is based on data analysis which shows that teacher research activities are in high category (62 percent), on the other hand a teacher is a real learning problem solver, it is excellent that real teacher experiences in the classroom are arranged into scientific articles thus they can inspire other teachers. A study showed that academic activities integrated with teacher action research were highly valued [13], for example, a survey of school staff members in 30 American elementary schools who showed high appreciation for advanced formal education there is directly connected with learning in school [14].

IV. CONCLUSION

This report presented the findings of research that the continuing professional development for teachers through scientific publications still needs to be improved and has received considerable attention both individually (teachers) and institutions. Not surprisingly, the school stakeholders are encouraged to professionally support the growth of participatory learning for sustainable development closely related to the obvious issues of teacher needs in professional development.

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