Advances in Social Science, Education and Humanities Research, volume 303

International Conference of Primary Education Research Pivotal Literature and Research UNNES 2018 (IC PEOPLE UNNES 2018)

The Sufficiency of Basic Tasks and Functions of the Functional Position of the Educational Technologies in Schools

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Abstract—**Field studies in the sphere of learning technology developer functions in school are focused on four main activities, i.e the quality assurance of learning, development and management of the learning infrastructure, capacity building resources of schools that includes teachers and other educational personnel, as well as facilitation of teachers in the learning performance improvements. This article aims to uncover the adequacy of functional position of the educational technologies (PTP) in school through the identification of required aspect in the position of PTP. This study uses qualitative methods with a focus group discussion approach to uncover that required aspects in the description, position, public test conducted in 5 provinces of Indonesia to introduce Focus Group Discussion results from conceptual scripts to PTP users at the schools. The results showed that the adequacy of the description of serving position PTP at the school found an important aspect, i.e. the development and school's learning resource management, Quality of learning assurance in schools, schools human resource capacity building, and facilitating learning by improving the quality and performance of teachers. The implications of our research is composed the long-term function guidelines PTP, which functions as main structure in a PTP functional position revelation in school.**
Keywords—PTP, school management, teacher facilitation, educational technology

I. INTRODUCTION

Educational Technology experienced going rapidly in development process at present, even had an important role in all fields of science. This refer to the definition of "*educational technology is the study and ethical practice of facilitating and improving performance by creating, using, and managing appropriate technological processes and resources*" [2], Education technology developer (PTP) can contribute to guarantees and practices in improving quality learning extensively. as conceptually theory PTP can do the study to produce a variety of new knowledge and practices. PTP conceptually are proven through scientific research in order to improve the quality of learning. In the practice of PTP can do with ethical practices in the design and production of various media/model of learning needs. this is done as the efforts to improve the quality of learning in school and at various Training institutes.

In other words, PTP can be adopted and based on work units/agencies of the Central Government or local governments that have a function: (1) innovation development/learning activities; (2) education and training; (3) education and distance learning; (4) technical guidance in the field of learning; (5) the learning support services; (6) quality assurance/quality of learning; (7) quality improvement/quality of learning; (8) the development of models and learning media; (9) the utilization of models and learning media; and (10) of the utilization of information and communication technologies for learning [5].

Field studies in the sphere of learning technology developer functions in the school are focused on four main activities, i.e the quality assurance of learning, development and management of the learning infrastructure, capacity building resources school (that includes teachers and other educational personnel), as well as learning performance improvements facilitation for teachers. Technically arable fields can be damp and distributed horizontally as well as vertically aligned with the stratification position of PTP. The empirical basis of practical experience may be referred to the student's field, educational technology programs FIP UNNES during 5 (five) years (2013-2017) as the development of curriculum and Instructional Technologist at several of schools in Central Java.

Quality of education becomes a necessity in order to meet the demands of change. Education should be able to serve as a developer of capacity and human resources to be able to do or do anything (power to), build cooperation (with power), and developed the inner strength in one's self (the power within) [8]. Education, directed at the achievement of the development of human capacity along with the right to life and are able to select a role to obtain participation as members of the community, parents, workers, and consumers of a particular product. Human capacity refers to a constellation of knowledge, skills, attitudes, and behavior

in the form of self-reliance, competitiveness, and durability against the turmoil of change.

The educational process at school so far still tends to teach about the principles and theoretical skills impersonal (not necessarily transferable), mastery of the material has been completed on an individual basis, while the tasks within the workforce demands the co-operation and Division of duties responsibly, development tool utilizes less intellect thought (tool less thought) but more on the symbolic thinking, While mental activity in real life demanded direct involvement [9]. This was confirmed by a study recommending that the school needed a more capable of learning strategies encourage learners, as way to learn not only from teachers but also, but also from other sources such as textbooks, mass media, people who have the ability/skills, resources and the environment [10].

To face the challenges ahead, the 21st century era is characterized as a period of knowledge (knowledge age), education, schooling should be able to prepare the students to face the global community. Learners must have competence as citizens of the global community, competent as communicators, critical thinkers, creators, and collaborators, in addition to mastering academic fields (subject matter areas) such as foreign language, art, geography, science, other social sciences [3]. The results of the National Research Council suggest that the cognitive competence of critical thinking, analytical, and problem solving that once simply was an indicator of success, but with the existence of economic change, technology, and social context of the 21st century, interpersonal and sometimes interpersonal competencies become more important. The company are now more giving an appreciation of soft skills such as teamwork and leadership [4].

To prepare learners gain the opportunity of participation in the global society of the 21st century, teachers should be more developed a model of team-based learning, collaborating, and more often using ICT [11]. Educational Technologies Developer (PTP) is a functional position that has the spesific duties scope, responsibilities, and authority are occupied by Goverment employees with the rights and obligations provided in full by the competent authority [6]. In the further implementation of PTP can be a partner within the framework of teacher learning and improving the quality of education in schools.

Implementation of PTP functional position at the school become a strategic step in building the education system of schooling. Teachers as the keys success holder of the educational process at school, will gain by supporting on a contributing resource achievement of the education in quality. PTP in school can act correctly the scope of the duties and functions, especially in terms of developing innovative learning models and innovative learning media. The model of teaching and learning media can be developed by ICT-based. To avoid it's not to cross the teacher tasks and functions, the scope of PTP duties and functions in school can be developed on the aspect of guaranteeing of learning quality, the learning infrastructure development and management, capacity building of teachers and produce educators, as well as

facilitation of teachers in improved performance of learning.

The application of functional duties at the school was an inevitability. The functional PTP that work and builds careers in institutions outside the school, the empirical basis has been able to carry out his professional duties in compliance of arable fields respectively. They have produced several useful products in the educational enhancement, providing learning resources for teachers and students, the facilitation and expansion of access to education for those in need, and more. Both the product and the achievements produce is less directly with efforts as needed by the teacher to improve the quality of learning in the schools. Their achievements, work product are the mass that acts as a supplement in the implementation of the educational curriculum of schooling. Therefore, when you could be realized teacher partnered with PTP this is a strategic effort in the improvement of the quality of teaching and education in schools.

Development and management of the learning infrastructure, included in its function of creation, use, and management of a variety of learning resources to facilitate learning and improve the quality of learning. This is in accordance with the 2008 AECT definition of educational technology, aligned with the scope of the activities of the technology development of learning and professional development PTP (Permen PAN No. PER/2/M.PAN/3/2009 Bab IV pasal 6 ayat b dan c). In context of variety development of a sources and technology of facilitating and improving the quality of learning benefit, PTP can be open wide to create, innovate and produce a product variety both in hardware or software, in accordance with the path/type/level of education including application model of specific learning/media..

In the context of the infrastructure, learning management, PTP can conduct various activities with regard utilization of different product models/media/ICT-based applications for the learning benefits. For utilization of technology products, it should be preceded with a needs analysis, feasibility study, tests, and new implementations in limited. This is necessary to minimize mistakes and other things that do not refrigerate. The tasks scope of learning infrastructure development and management that urges to be handled in a professional manner wich related to ICT. Development and management of software like a web school, development and utilization of e-learning is certainly requires of professionally handling that is not given enough/entrusted to teachers as additional duties. With PTP in school, it can be expected that the problem of learning infrastructure development and management in school, can be conducted in a more structured, hard-wired, and measurable.

Arable fields PTP in capacity building of teachers and educational personnel in schools, substantively cover a wide range of activities support as the task of teaching, such as PTP/instructors/trainers/tutors/facilitators in technology learning, the supervisor / companion in the development of learning technology [5]. But more than just as a teacher or supervisor, PTP can be a developer model increased the capacity of the school resources. PTP can initiate, conduct training needs analysis, designing a

training model, producing training materials, implement training programs, monitoring/control and evaluation, to carry out follow-up relating. If the activity is performed by the PTP, then not only do the ancillary activity as a profession but also can fit in the category as the principal task of the technological development of learning at the school.

Applied research in educational technology Praxis learning has been widely carried out, both in the context of educational technology as a product or process. From the dimensions of the product, a lot of research to prove that the use of technology products can improve the quality of learning.

Applied research, technology education from the dimensions of the process, not less. For example Haryono [1] have developed a model of the learning process is characterized by an increase in the ability of the creative thinking and critical that significantly increase the ability of the creative thinking and critical student elementary school in Central Java. Haryono [1] Developing a model-based learning science process skills in order to improve the ability of science students, which includes the dimensions of products, processes, and attitudes.

Existing research in substantive and the empirical, proving that applied education technology both in terms of product applied as a technology in education (in particular the study) as well as a systematic and systemic process to addressing the problem of human learning, significantly improve the quality of learning and performance. Studies were conducted to test the extent of applied educational technology, this is able to contribute to the improvement of the learning quality that comes down to the achievement of the learning results in more meaningful. While the research, developing an position of PTP functional implementation in school, is expanding and deepening over the applied educational technology in educational praxis in school.

The purpose of this study is to formulate a comprehensive description, position and works functions of the principal functional PTP at the school. While the benefits of this research to guarantees can find and develop a new knowledge and practice of educational technology in the empirical Praxis in order to help solving the problem of human learning as more comprehensive.

II. METHODS

The process of uncovering the qualitative data on some of the respondents has done . to initial analysis by spreading open question form that contains about the importance of PTP functional position at the school. the respondents in school as well as in the institution's existing position the functional position of PTP is active. This research is a survey that reveals the experimental adequacy needs using FGD's, the function approaches to find out how broad the range of PTP in the schools approved by the users of PTP.

III. RESULT AND DISCUSSION

Public test of academic texts, position descriptions, and career coaching system a PTP functional possition at the school, has been conducted. We delivered the materials by focus group discussion in Semarang Central Java, Surabaya East Java, and Bali Singaraja with Junior High School i.e MTs, SMA/MA, SMK. The public test conducten in September 2018.

We have been doing the public test for script implementation of PTP functional academic position at the school, the manuscript description task principal position functional PTP at the school, and the technical implementation guide position functional PTP at the school. Public test is carried out in three provinces in Indonesia with the target of school management (the head or Deputy Head of the school) and elements of the teacher. The schools involved in this public test include SMP/MTs, SMA/MA, and SMK both public and private. Research areas prioritized are the province that there are College providers, technology education level Bachelor's degree. This is related to the next step is to test the model (System) that will engage the students of undergraduate level educational technology programs to perform the function of schools Learning Technologies Developer (PTP) through the activities of Practice Fields. The province as the target public test is Central Java, East Java, and Bali. On the public test simultaneously carried out the formation of a community school Office functional implementation of PTP adopters to support achievement of a better quality of education.

Manuscript descriptions of PTP functional position of the school, in it contains; (a) introduction which is the introduction related to the purposes and principles of the PTP Law position of functional description, (b) understanding the functional position of the main element and PTP support; (c) a description of the functional pots of PTP in the school, and developmental requirements.

The results of the analysis of the adequacy of the comprehensive description (blurb) duty PTP position functional at the school, summarized in table 1 below.

Table 1. The adequacy of Functional Office Duty Description PTP in school

NO.	ASPECTS OF THE SCOPE OF THE JOB/FIELD OF STUDIES	MINIMUM SCORE	MAXIMUM SCORE	MEAN SCORE	%
1.	Development and management of the school's learning resource	1	4	3,27	81,63
2.	Guarantee the quality of learning	1	4	3,27	81,63
3.	Human resource capacity development in the school	1	2	3,29	82,14
4.	Facilitation of teachers in improving the quality of learning and performance in school	1	4	3,31	82,65
	Total	**4**	**16**	**13,12**	**82,02**

Refers to table 1, it is understood that the principal task position of the PTP functional description in schools covering the areas of development and management of the school's learning resources, learning quality assurance, capacity building of human resources, school of and facilitation of teachers in improving the quality of learning and performance, assessed the respondent has sufficed. This means that the comprehensive description of the basic tasks of position functional PTP at the school, has been covering the areas of arable area, covers four substantive areas of educational technology in the domain of the function of facilitating learning and improving performance as delivered by Januszewski & Molenda [2]. Arable fields covered in it are too specific, not hit a field of other functional studies in schools (especially teachers) as well as other functional as lab assistant, librarian, archivist, institution computers, and others.

The basic tasks of PTP position functional in the schools are classified in 4 (four) regions, i.e;

a. The developer and maintainer of the school learning resources, which include; (1) the needs analysis of media, (2) learning textbook needs analysis, (3) needs analysis of materials and learning tool practice/laboratory, (4) needs analysis of information technology device for learning, (5) needs analysis of the Internet network to support learning, (6) the management of information technology device in schools, (7) the management learning resource in schools, (8) school web development information system , (9) school web management information systems , (10) the development of school electronic learning (e-learning), (11) the management of the school electronic learning school.

b. Quality assurance of learning at the school, which include; (1) the determination of the quality standard of school learning, (2) quality learning school mapping, (3) the preparation of school learning quality fulfillment recon, (4) preparation of instrument monitoring (monitoring) the fulfillment of the quality of learning, (5) the drafting of the instrument evaluation (audit) the achievement of quality learning, (6) monitoring the fulfillment of the quality of learning, (7) reporting the results of monitoring the fulfillment of the quality of learning, (8) evaluation (audit) the achievement of learning quality , (9) reporting the results of the evaluation

(audit) the achievement of the learning quality, and (10) program development to follow-up evaluation results achievement of learning quality.

c. Schools human resource capacity development , which include; (1) training needs analysis for the improvement of the competence of teachers, (2) training needs analysis for the improvement of the competence of produce educators in schools, (3) competency enhancement training, program development teacher, program development (4) the training of educational personnel competency improvement, (5) organizing training increased the competence of teachers, and (6) organizing training increased competence of produce educators.

d. Facilitation in improving the learning quality and teachers performance, that includes; (1) requirements analysis model of educational technology to support curriculum implementation, (2) development of educational technology model to support the curriculum implementation, (3) mentoring teachers in the development of the necessary learning media, (4) teacher mentoring in development materials needed, (5) teacher mentoring in the development of multimedia learning, (6) teacher mentoring in the development of electronic learning (e-learning), (7) the study of the learning media feasibility, (8) study of a materials feasibility used in teaching school.

IV. CONCLUSION

The results of the research it was concluded that aspects of the PTP position description have been identified with the agreement of FGD in 5 provinces of Indonesia, the decision comes after public trials against the PTP descriptions Position in the school. The aspect of position descriptions adequacy consists of three perception research presented in the wide scale public test. i.e the development and management learning resources at the school's , learning Quality Assurance in schools, schools human resource capacity building , improving the quality of teachers in Facilitating learning and performance

Comprehensive description (blurb) basic tasks that can be performed by functional PTP at the school. the basic task includes the development and management of learning resources, learning quality assurance, capacity building of human resources in the school, and facilitation of teachers in improving the

quality of learning, it is very adequate. This means that the coverage areas of the plots PTP as the technological education in schools have been very extensive, but also at the same time specific. The coverage areas of the plots are already very comprehensive, but the specific nature (not cross) of the areas partially functional in other schools (teachers as major aspect), but is also functional as a lab assistant, librarian, archivist, institution computers, and more.

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