



Professional development program for physical education teachers in Indonesia

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ABSTRACT

Enhancing the quality of teachers has been a global challenge, and the government responded to this issue by providing various programs for teachers' capacity upgrading. This study aims at designing a professional development program for teachers of sports and health physical education in Indonesia. Using a research and development approach of Borg and Gall model, the study is to obtain comprehensive results and an understanding of the program. The preliminary findings indicate that the teachers face some obstacles in providing teaching and learning activities, although they have followed some coaching programs. The program development, therefore, proposed in this study consists of three primary documents: initiated program design, implementation guidelines, and evaluation prescription. Judgment by experts, principals, and teachers indicated that the program was proven valid, practical, and effective to be used as an assistance model for the professional development of sports and health physical education teachers in primary schools. The practical and managerial implications are also provided in this writing.

Keywords: professional, program, physical education, teacher

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INTRODUCTION

Teachers are becoming important agents in determining success and failure in education (Khan et al., 2017; Ozgenel & Mert, 2019). Some scholars remarked that teachers are strategic in their role in improving the quality of students and learning achievement (Marshik et al., 2017; Keller et al., 2017). Indeed, Wang et al. (2020) demonstrated that teachers stimulate the development of students' potential, including physical, mental, intellectual, moral, social, and spiritual aspects. These students' potential can be optimized by undergoing various efforts, one of which is through human motion (Stepanchenko & Briskin, 2019). Through motion, students can be educated to enhance their potential. In this regard, subjects that are relevant to education through motion are sports and physical health education (Sgro et al., 2019).

In addition, the teachers of sports and health physical education need to improve their professionalism to deal with the dynamics of educational issues (Harjanto et al. 2018). Several prior studies by Bakhtiar and Famelia (2017); Creemers (2012) noted that the success of teachers can be accomplished by following development programs to achieve a higher standard. Kirk et al. (2013) added that physical education takes a role in the acquisition and development of students' physical competencies. Improving teachers' professionalism is often comprehensively linked with professional development programs, which are remarkably various. Indeed, some prior studies by Garcia-Martinez et al. (2019); Burhanudin (2017); Koh et al. (2017) stated that

teachers need guidance to obtain information on new knowledge and technology in ensuring their professionalism.

Since the essential role of the sports and health physical education teacher, the studies on the development of teachers are on trend (Kartal et al., 2018).

The preliminary studies by Mu'arifin (2011); Adi et al. (2018) pointed out that the sports and health physical education teachers in Indonesia suffer in optimal performance compared to other teachers in different fields. The underlying finding is that teachers feel comfortable with their current existence, so they do not feel the need to adjust to scientific developments (Hasbay & Altindag, 2018; Egert et al., 2018). Additionally, coaching is perceived as a mere abortion of obligations instead of an activity of continuous self-improvement. The stigma of the sports and health physical education teacher is someone who prioritizes muscles over the brain, and a long service period does not determine the quality of performance because from year to year, it solely repeats the same thing (Amin et al., 2021). Lastly, there is a misperception of the sports and health physical education discipline that make the learning goal cannot be achieved (Zhang et al., 2021).

Drawing from the continuous professional development literature, it is pivotal for improving and reconditioning educators due to the global challenges and sophistication of technology (Alfrey et al., 2012; Casey et al., 2017). It was documented that the insufficient connectivity between teacher development program and implementation instructions often lead to insignificant changes (Darling-Hammond, 2000; Kraft et al., 2018). For this reason, follow-up professional development should concern educators' learning which needs to elaborate a linkage between cognitive comprehension and practice in promoting professional and pedagogical development (Yoon & Armour, 2017).

Therefore, designed programs with detailed instruction may help teachers to raise either their competence or educational goals (Brown & Green, 2015). Additionally, a professional teacher development program design will succeed when educators take a pivotal role from implementation to the program evaluation (Darling-Hammond, 2000). A preliminary study confirms that the educators' engagement in professional development programs impacts a distinction in the quality of teaching and learning (O'Sullivan & Parker, 2018). Therefore, it raises three questions: what are the main challenge and opportunities for teachers' professional development? (RQ1), to what extent does program deal with the teachers' needs is suitable for Indonesian teachers? (RQ2), and how is the coaching program for sports and health teachers evaluated? (RQ3).

Some studies on the sports and health physical education field are more likely focused on the difficulty in using various learning methods that are able to optimize all the potential of students, learning is more aimed at mastering motion skills in certain sports, and adoption of learning strategies in the classroom (Quennerstedt, 2019; Akhiruddin & Aprizon, 2020). Additionally, Hussain et al. (2015) concerned about the students' motivation and teachers' professionalism. In the elementary school context, a prior study by Irmansyah et al. (2020) adopted traditional sports games to enhance children's social skills. Furthermore, Susanto et al. (2020) developed a model for teaching personal and social responsibility among sports teachers. Dealing with these issues, this paper aims to develop a program design for sports and health physical education teachers to attain the educational goals.

This study provides some main contributions. First, this study contributes to the literature in the field of sports and health physical education by providing a program design to be adopted for sports and health physical education teachers. This is the first study that develops a general design program for the sports and health physical education teachers, especially for elementary schools, which is expected as the reference for teachers in Indonesia and other countries with relevant characteristics. Second, the focus of education development in Indonesia heavily relies on the certification program for enhancing the quality of teachers, but it does not effectively stimulate the teachers' professionalism. Hence, the program for the development of teachers which answers the teachers' needs were designed to support the government policies. Thus, this study aims at providing and evaluating a program for professionalism for physical education teachers in Indonesia.

METHOD

Design

This study adopted a research and development approach (R&D) to gain a deeper result and understanding. Research and development will produce educational products in the form of a curriculum, a syllabus, books, learning media, modules, assessment instruments, program designs, and others. In this research and development, researchers developed a coaching program for professionalism for sports and health teachers. This research involved sports and health teachers in several elementary schools in East Java of Indonesia.

This study followed Borg and Gall (1989), research and development model, which consisted of problem identification (need analysis), proposing products, validation activities, and implementations. However, the research and development steps were adapted to the limitations and conditions in the field during the Covid-19 pandemic so that the implementation stages were limited to problem identification (need analysis), proposing products, and evaluation activities.

Procedures

The development research procedure refers to steps taken by researchers in creating a program. In the need analysis, an observation process was carried out to determine the learning situation. The observation result was ensured by questionnaires interview for teachers. This stage aimed to collect detailed information and data related to the development of the coaching program. The questionnaires related to teachers' perceptions of their main tasks, the challenges, motivations, and implementation of the learning process.

The next step was to design a coaching development program. The development of the coaching program design was carried out in several stages: conducting interviews with sports teachers and principals in several elementary schools for need analysis. The data results were used to determine what products to be developed, the type of program, and to achieve learning objectives and.

Data Collection

The collected data was used as material for planning a professional development program for sports and physical health teachers in Indonesia. The data were collected using questionnaires, observation, and interviews given to sports teachers. The semi-structured interviews relied on the teachers' perceptions of their main tasks, the challenges, motivations, and implementation of the learning process, as well as a complimentary coaching program that matches their characteristics. The examples of questions asked are namely "what are the challenges or obstacles in the implementation of learning in sports subjects?", and "how is the implementation of learning?"

To predict the validity of the program design, the study inserted four judgments from two experts in physical education and two experts in education study. In the implementation of program design, the practicality test involved two school principals and nine sports and health physical education teachers. Researchers asked experts as validators to assess and provide inputs in terms of product development's strengths and weaknesses. The results of the assessments given by experts were used as a basis for improvement and refinement of the development of teaching materials to match the products expected by researchers.

Data Analysis

The data from need assessment and experts' judgment in terms of clarity, conformity, uses, and implementation was analyzed accordingly using descriptive analysis.

FINDINGS AND DISCUSSION

Findings

The finding of this paper has been divided into three parts. The first part deals with the results of the need analysis. The second part provides a development product in the form of a hypothetical coaching program consisting of three documents. Lastly, it involves the experts' judgment to evaluate the designed coaching program.

Need analysis

A professional development program was initiated from a needs analysis acquired from the educators. A need analysis was to acquire data and to allow educational institutions to refine the goal sets. The needs analysis was also carried out to assess the urgency of developing a professional development program for primary school sports and health physical education teachers in organizing learning. The information collected consisted of the teachers' perceptions of their main tasks, problems faced in carrying out their main tasks, coaching programs that have been followed by teachers, the urgency of coaching, and the expected coaching programs (see Table 1).

Table 1. The summary of the need analysis

No	Statement	Responses
1	The main task of teachers	The order of the teacher's duties: 1) teaching, 2) fostering students' development, 3) managing personal administrative tasks, 4) carrying out classroom action research, and 5) assisting the school's principal.
2	Challenges in providing the main task	The order of the top five problems confronted by the sports and health physical education teachers in teaching and learning: 1) activating and pleasing students during learning, 2) carrying out comprehensive assessments, 3) teaching methods according to the curriculum, 4) compiling correct lesson plans, and 5) developing assessment instruments for all domains
3	The development programs that have been followed	Educational seminars, workshops, in house training, teachers' group discussions, and certification program. All the coaching that has been followed is considered beneficial for primary school the sports and health physical education teachers.
4	The coaching urgency	The development science and technology, 2) teachers experience several problems in teaching and learning, 3) the revitalization of curriculum 4) to improve teachers' careers and 5) students are less active as its impact of technological advancement.
5	The development program	Reproduce the practice, 2) increase the group discussion, 3) equip with teaching materials, 4) the activities are directed to improve each other, and given examples to clarify.

The development of the program

Based on thneed analysis data and theoretical study, then the hypothetical program was developed rigidly. The products were in the form of a written document used as a guide in carrying out training for the sports and health physical education teachers. This development program consisted of three documents, namely coaching materials (packaged in the form of the coaching program), guidance for the implementation, and evaluation of the coaching program.

The coaching program consists of three materials, namely the introductory of the coaching program (CP1), the learning plan of the coaching program (CP2), and the learning implementation and assessment of the program (CP3). These materials were arranged systematically and followed CP1 to CP3. CP1 material was introductory material as the foundation for the discussion on CP2 and CP3, respectively. CP1 consists of three materials: the nature of professional teachers, the concept of sports and health physical education, and the meaning of learning. To enhance teacher professionalism, coaching participants should first understand the nature of professional teachers, comprehend the meaning and purpose of sports and health physical education, and understand the meaning of learning and its application in sports and health physical education in elementary schools.

After understanding the professional concept, the definition of sports and health physical education, and learning, the coaching participants were expected to apply the concepts understood in preparing lesson plans. CP2 consisted of three main subjects, including the understanding of lesson planning, the anatomy of lesson plans, and the procedures for preparing lesson plans. The outcome targeted in this material session was that the coaching participants were able to prepare lesson plans according to procedures and were ready to be practiced in the field.

CP3 described material about the application of learning planning into learning implementation and assessment activities. CP3 consists of three materials, covering the implementation of learning, assessment, and reflection on learning. The learning implementation material contains principles and procedures for teacher actions before, during, and after learning. The learning assessment material was designed according to the meaning of tests, measurement, and assessment, the domains and instruments of assessment, and the procedures for implementing the assessment. The learning reflection material were also designed based on the understanding and implementation procedures of lesson study, as a program for activities in conducting assessments and improving learning.

Guidelines for coaching were developed as technical guidelines for the committee and coaching participants in carrying out the coaching program. The guide provides a general description of the coaching program, competencies, or goals to be achieved, coaching materials, methods used, coaching syntax, and coaching evaluation. The evaluation document was then developed as a technical guide for the committee and coaching participants to monitor and evaluate the coaching process and results. The guide was to explain the meaning of monitoring and evaluation, implementation procedures, and the instruments used.

Evaluation

Experts and practitioners then evaluated the products. The experts evaluated this program design were two experts for evaluating material/substance and two experts for evaluating learning supervision. The experts in substance reviewed the coaching program and evaluation book, while the expert in learning supervision reviewed the guidebook of teaching implementation. The experts contributed to evaluated materials which improved the coaching program's substance and the intention of the coaching program. The revision of the coaching program was in written notes on the manuscript, especially for revisions in adding and subtracting substances. Simultaneously, the intention of the coaching program was drawn after the experts answered a questionnaire. The expert input on the substance of the coaching program is described in Table 2.

Table 2. Physical education expert comments on coaching program

Experts notes	Revised versions
In the discussion of the nature of professional teachers, criteria for professional teachers need to be added	A discussion of the criteria for professional teachers has been added to the text.
The sample material is added and adapted to elementary school materials	The addition and adjustment of modification examples for teaching and learning in elementary school education have been added by describing the modified form of tools, regulations, and field size.
It is necessary to add a study on the scientific approach to learning sports and health physical education in elementary schools	Exposure to the scientific approach in learning sports and health physical education further clarifies the concept by providing concrete examples of teacher-student actions in implementing learning.
It is necessary to add the sports and health physical education assessment program in the realm of attitudes, knowledge, and skills	The sports and health physical education learning assessment program in three domains is included directly in the discussion of assessment. Implementation procedures are particularly at the point of the assessment instrument, the implementation of the assessment, and the analysis of the assessment data.
In the discussion of reflecting on learning in physical education, it is necessary to add a catch-up observation sheet, analysis program, and conclusions.	Five observation sheets have been added, along with analysis techniques and concluding each observation sheet

Physical education expert studies on the meaning of the coaching program were collected using a questionnaire. There are 32 statement items about the meaning of the coaching program which were scored by experts ranging from 1=insufficient to 5=very high (see Table 3).

Table 3. Physical education expert assessment

Assessment	Score	Average	Total average
Expert I	133	4.2	4.0
Expert II	123	3.8	

From the conversion procedure, the average assessment of the two sports and health physical education learning experts on the program design was in a good category, thus the developed coaching program was used with slight adjustments or revisions. Expert assessment was also in the form of notes and written suggestions for improving the coaching program manuscript. Expert noted about inaccurate writing and suggestions for improvements in adding material or concepts which are relevant to the purpose of writing. Supervision expert examined guidelines related to clarity, suitability, usefulness, and implementation of guidelines s in Table 4.

Table 4. Education supervision expert assessment of the guidance for guidance

	Assessment	Score	Average	Total average
Expert I	Clarity	99	4.7	4.85
	Conformity	100	4.8	
	Uses	99	4.7	
	Implementation	104	4.9	
Expert II	Clarity	104	4.9	
	Conformity	104	4.9	
	Uses	100	4.8	
	Implementation	104	4.9	

Discussions

The need for a special program of professional development for the sports and health physical education teachers is a vital voice to respond. The coaching program followed by the sports and health physical education teachers has so far been perceived as less effective in increasing professionalism in organizing learning. It was found that the performance of the sports and health physical education teachers has not shown adequate professionalism. Therefore, the program developed in this study was adapted to the characteristics of subjects and teachers in the sports and health physical education. By synthesizing procedures from several existing development research programs, the procedures used in this research were at eight steps: conducting needs analysis, identifying aspirational programs, conducting theoretical studies, developing prototypes, conducting expert tests, carrying out usage tests, carrying out application tests, and producing products. The essence of development research aimed to produce and test products; according to Borg and Gall (1989), educational research and development were used to develop and validate the educational product.

In general, the coaching tool describes the goals to be achieved in coaching, the material that must be mastered to achieve these goals, what participants do to facilitate learning experiences for achieving goals effectively (strategies or methods), how to monitor them, and evaluate the success of coaching. The coaching program developed in the research is in the form of three coaching tools documents, namely the coaching program, guidance implementation guidance, and evaluation guide. The teachers’ development program is a coaching instrument that covers coaching substance or material. The material in the coaching program makes it easier for teachers to learn, comprehend, and practice existing concepts independently. They were coaching program characteristics, namely self-instruction, self-contained, stand-alone, adaptive, and user-friendly (Curran & Standage, 2017; Daryono & Rochmadi, 2020).

Guidelines for coaching implementation referred to the model of Joyce and Weil (2015), sequentially containing general descriptions, coaching implementation flow, objectives,

materials, methods, subjects, schedules, syntax, social systems, reaction principles, support systems, impact, and continuity of coaching. The general description provided a comprehensive description of the coaching program to provide a complete understanding of the profile of the coaching program; coaching flow described the sequence of activities carried out in applying the program; objectives were the formulation of competencies to be achieved in implementing the program; the material contained descriptions of all the substances studied in the coaching programs, namely CP1, CP2, and CP3. Additionally, the method is a method by which the subject carries out the coaching program; the subject is a person who is involved in running the coaching program; schedule is a breakdown of activities, weight, and implementation time; syntax is the whole stage in carrying out the coaching program; social system is a norm that regulates the role and relationship of the development subject; the principle of reaction is the facilitator's way of responding to and treating the coaching participants; the support system is all the facilities and infrastructure used to facilitate the implementation of the coaching program; impact is the result of coaching on participants; and sustainability is an effort made so that this program can be carried out in a sustainable manner.

The evaluation guide was a coaching tool to determine the effectiveness of the coaching implementation. Monitoring referred to an activity to determine whether the implementation of coaching followed the plan, what problems were encountered, and what solutions were given, while evaluation was an activity to find out whether the implementation of coaching has or has not achieved the goal. The evaluation guide describes the meaning of evaluation, objectives, implementation, procedures, and instruments.

The process of implementing the coaching program began with running CP1. The activities were in the scope of theoretical studies of professional concepts, the concept of sports and health physical education, and the concept of learning. This material was the basis for running CP2. CP2 contained a theoretical study of the concept of lesson plans and a workshop on preparing lesson plans, which were used in the practice of learning in CP3. In CP3, a theoretical study of the implementation and assessment of learning was carried out. Learning assessment included assessing the process and student learning outcomes and assessing the implementation of learning (reflection).

The ability to carry out assessments is an urgent need for primary school teachers. This need was based on the fact that the sports and health physical education teachers' stereotype was field worker, namely teachers who accustomed to practicing in the field and teachers who spend most of their time teaching in the field. Such a situation results in the sports and health physical education teachers tending to neglect activities that hone theoretical-cognitive abilities. To overcome this issue, the implementation of coaching heavily relied on the task of reading the coaching program and making notes on understandable phrases in sports and physical education. In the task, the sports and health physical education teachers was trained and accustomed to conducting text assessments as an essential activity in increasing rationality. Sports and health physical education teachers need reasoning based on experiential activities.. La Vine and Betchel (2015) stated that legitimacy, marginalization, and isolation continue to hinder the physical educator's quest for continuous professional development. The sports and health physical education teachers need to struggle to gain legitimacy because the existence of sports and health physical education is often ignored or misunderstood as a subject that is not meaningful and is only intended for muscle building.

This coaching program used a method that ensured collaboration, namely, the ability to work together in a peer-to-peer atmosphere actively obtains many benefits (Lofthouse & Thomas, 2017). A collaboration provides teachers opportunities to be active and productive, increase the intensity of cooperation that teaches each other, and share experiences (Levine & Marcus, 2010; Moolenaar et al., 2012). By running workshops and lesson study practices, coaching is assumed more effective because it places teachers at the center of activities. During coaching, all potential teachers may be activated with facilitation and motivation from the facilitator. Active learning is a learning model that effectively improves teacher abilities (Leonard & Marquardt, 2010). In active learning, coaching participants are given many opportunities to ask questions, discuss, make observations, emphasize the exchange of experiences and learn from experiences, explore

various alternative solutions to problems independently or in groups, and emphasize practice to try out the results of theoretical studies (Gess-Newsome et al. 2019).

Effective coaching is believed to be able to motivate participants to change. These changes include the realms of gaps in knowledge, skills, and attitudes of the coaching participants (Dick et al., 2015; Desimone & Pak, 2017). Efforts to make teachers become dynamic and changing figures had been pursued in this coaching by providing coaching programs, choosing methods that activate, and applying a mutual learning approach.

The program developed in this study contributed several aspects. First, it was developed based on the needs and aspirations of the teacher. Second, it contained entire subsections, starting from planning, implementing, and assessing learning. Third, the program was equipped with a representative document set. Lastly, the program elaborated a multidisciplinary approach, namely the disciplines of sports and health physical education, learning, instructional design, and supervision.

CONCLUSION

The development of the professional development program used procedures from the synthesis of several tested development research programs. The development research results were in the form of three written documents, namely the coaching program, implementation guidelines, and evaluation guidelines. experts, principals, and teachers evaluated that the coaching program design was proven valid, practical, and effective as a program design for the professional development of sports and health physical education teachers in primary schools in carrying out learning. This study, therefore, provide some implications. First, it implies this research elaboration in on a broader basis or focusing on enhancing the model for supporting continuous professional development. Furthermore, educational institutions and schools are required to involve the program design to achieve the educational goal. It also needs to maximize the teacher working group forums to engage with this coaching program design to solve the same problems or other problems related to implementing learning.

However, his study also has some limitations. First, it lied the geographical settings to cover the development of sports and physical health education. Second, this study solely involved four stages of product development, therefore, other studies are suggested to elaborate on the more depth development procedures. Lastly, the data and empirical findings were limited to solely elementary school teachers.

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