

Model-based Collaborative for Professionalism Development of Sports and Health Physical Education Teachers in Indonesia

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ABSTRACT

Enhancing teachers' professionalism has been a challenge and the policy researchers are responding to this issue by providing teacher development program. Preliminary studies have advocated some ideas and model for development teachers' professionalism. However, there is a lack of empirical studies that focus on the development model as it linearly affects teachers' development. This study aims to implement and evaluate a model-based collaborative for sports and health physical education teachers in Indonesia. This study elaborated both a mixed-methods approach to gain a deeper understanding of this phenomenon. This research engaged teachers and schools' principals as participants. The data were provided in a questionnaire to know the user perception about the modules and its implementation. The findings indicate that the coaching model has been revised to be accurately and easily understood and feasible to apply. Second, in a process, the coaching model can be applied smoothly and efficiently, is perceived positively by the teacher, and can increase teacher motivation to participate in the coaching process. Lastly, the application of the coaching model can improve the cognitive abilities of teachers, and is proven to be practically applicable to improve teacher professionalism in carrying out learning.

Keywords: Model-based collaborative, Teacher development, Teacher professionalism

INTRODUCTION

Teacher coaching programs are crucial to producing professional educators at all educational levels (Gaion et al., 2020; Cohen et al., 2020). The fundamental rationale is that professional teachers will promote the quality education services to students. Some scholars believe that having a high-quality education, intelligence and competitiveness will contribute to the nation's welfare (Alonzo, 2019; Yinfu, 2017). Similarly, Imron et al. (2020) remarked that a teacher has a strategic role in realizing national development goals, especially in the field of education. Therefore, the ability of teachers needs to be managed through teacher development programs.

In addition to promote national development, research on this theme is also on the rise. The largest studies have focused on the certification program as a solution to deal with the teachers' development issue (Pratama & Sukarmin, 2019; Yildizer et al., 2018). Meanwhile, some researchers believe that the teacher certification program is not effective in enhancing the quality of education (Kusumawardhani, 2017). Recent studies focused on model-based practice such as cooperative learning and teaching model to promote understanding (Bores-Garcia et al., 2021; Legrain et al., 2019). Another study by Andre et al. (2021) pointed out the use of blended professional development for physical education teachers. Despite the escalating studies in interest on how to enhance teacher development, the implementation and evaluation of model-based collaborative is overlooked by scholars. Therefore, there is a need for a greater understanding of what and how the

model-based collaborative can predict teacher professionalism and widely adopted for relevant purposes.

The model-based collaborative is based on nursing principles, increasing participation, activity, collaboration, and independence (Keshmiri et al., 2017; Gümüş et al., 2020). This model contains three documents that support this coaching model, namely modules, implementation guidelines, and guidance for monitoring and evaluation of coaching. A coaching module is a coaching tool that contains coaching material. The format of the material is arranged in the form of modules to make it easier for participants to learn, understand, and practice existing concepts independently (Al Mamun et al., 2020). The coaching module consists of three main materials, namely the introductory coaching model (MP2), the learning planning guidance model (MP3), and the learning

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implementation and assessment guidance model (MP4). MP2 material contains explanations about the concept of teacher professionalism and the concept of physical education and its learning model. After mastering MP2, it is followed by MP3, which is materially linked on planning lesson plans. The product of MP3 is in the form of a lesson plan script that is ready to be practiced in the field. Description of how the implementation and assessment of learning are studied is provided in MP4.

In the Indonesian context, training for sports and health physical education (SPHE) teachers is urgent because the performance shown still does not meet the set standards compared to other subject studies (Abdillah et al., 2019; Suherman et al., 2019). The training of SPHE teachers needs to be carried out continuously to increase their professionalism (Bulakh et al., 2019). Sports and health physical subject focus on physical activities in the form of movement to be used as a medium in educating students (Robinson et al., 2018). Although its activities are dominated by movement activities, the essence of SPHE is to foster all potential students, namely physical, social, moral, mental, intellectual, and spiritual (Yoda & Tisna, 2021). Therefore, this study is aimed to understand the implementation and evaluating for model-based collaborative of sports and health physical education teachers in Indonesia.

This study provides three main contributions. First, the process and results of this research can be used as study materials and references in developing a coaching model that is in accordance with the objectives and characteristics of the participants. This study is directed to test the meaningfulness of the coaching model, so that a truly tested model will be obtained. Second, research in the form of a coaching model can be used as one of the policies in fostering teacher professionalism, and can be directly applied or implemented into real actions in teacher coaching practices. Third, this model can be used as a medium to improve professionalism in the context of learning implementation.

METHOD

This study was intended to implement and evaluate the model-based collaborative for sports and health physical education teachers. To accomplish the aims of this research, we adopted a mixed-methods approach as suggested by Cresswell and Clark (2017). This approach was adopted to enhance a deeper understanding of the study problem by gathering and analyzing two strands of quantitative and qualitative data in a single phase, then integrating the findings to accomplish a general interpretation. In detail, the procedure implementation of this model uses classroom action research which the stages of compiling plans, implementing actions, reflecting and following up (Kemmis, 2014). Planning is compiled together to produce a schedule and coaching support tools; action is carried out by practicing the coaching model, namely modules and

implementation guidelines; Reflection and follow-up are activities to monitor the process and results of coaching by implementing guidance for monitoring and evaluation of coaching.

Participants, Data Collection and Analysis

The data was collected using in-depth interview techniques, observation, written tests, and discussions. This study was conducted in the selected area in East Java of Indonesia, including in Kediri, Malang, Batu, and Pasuruan. There are two reasons for choosing the research site, namely affordability and regional categorical representation. Affordability concerns the ability of researchers in the data collection process and the willingness of respondents to respond to data requests. In the problem identification and needs analysis phase, almost all of the respondents in the four regions filled out and sent back the research questionnaire, while other regions in East Java had inadequate responses. In addition, the four selected regions have shown readiness to become the scene in implementing this coaching model. From the aspect of representation, Malang and Batu represent the big city category, Kediri represents the middle city category, while Pasuruan represents the low/developing city. In more detail, the subject for the test involved two schools' headmasters from Malang, three teachers from Kediri, six teachers from Malang. While for classroom research, we elaborated 38 teachers from Batu and 34 teachers from Pasuruan. The data collected is provided in the form of quantitative data and qualitative. The data were provided in a questionnaire to know the user perception about the modules and its implementation. Quantitative data analysis techniques use descriptive statistics (percentage and mean), and t-test statistics, while qualitative data analysis techniques refer to the procedures of Miles and Huberman (2014): data condensation, display data, and drawing a conclusion.

Procedures

The procedure for this activity is carried out in several stages. First, evaluate the model-based collaborative in the form of modules. The module is evaluated quantitatively using a questionnaire filled out by the teacher and the schools' principal to know their perceptions about the module for coaching. Accordingly, the qualitative data is obtained from the focus group discussion and in-depth interviews. Furthermore, the model implementation test is carried out. The implementation test is carried out in three stages: planning, implementing and evaluating. The implementation test begins with compiling a plan that is compiled through discussion with the PHSE teacher group to equalize perceptions. The implementation test process is depicted in Figure 1.

The implementation stage of the model application test is carried out in three phases. First is the preparation activity, which includes: ensuring all participants are ready on the

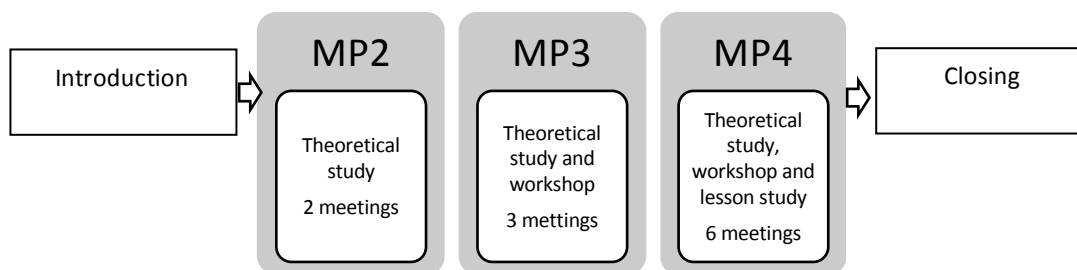


Fig. 1: Test Scheme for the Application of the Coaching Model

location and brings a coaching module. The facilitator learns and understands the coaching syntax, while other facilitators prepare to observe the performance of the facilitator and coaching participants. Second, during the process, participants will be required to be active and independent in completing modules, posing problems, discussing, and doing assignments, while the facilitator carries out his/her function in motivating and facilitating participants. During the training, monitoring and evaluation are carried out. The data and information collected include the performance aspects of participants and facilitators, learning completeness, and formative assessments. At the end of the coaching session, a reflection is carried out, namely participants are given the task of giving written responses about: interesting things in coaching, benefits of coaching, suggestions, and interviews which intended to confirm the findings and clarify the improvement data. The performance of participants and facilitators is the level of quality of performance during the process of carrying out the coaching. Formative assessment is the participant’s assessment of the coaching process which consists of six indicators, namely attractiveness, material benefit, process benefit, effectiveness, facilitator ability, and tools. During the implementation stage, this research also compares the cognitive ability using pre-test and post-test among participants to obtain a better understanding on the coaching program. Completeness of learning is the level of success of participants in mastering coaching materials. The completeness of learning is known from the scores of the participants in carrying out the questions in the “model-based collaborative” module.

FINDINGS

The coaching module consists of three main materials, namely the introductory coaching model (MP2), the learning planning guidance model (MP3), and the learning implementation and assessment guidance model (MP4). MP2 material contains explanations about the concept of teacher professionalism and the concept of physical education and its learning model. After mastering MP2, it is followed by MP3, which is materially linked to how to plan lesson plans. The product of MP3 is in the form of a lesson plan script that is ready to be practiced in the field. Description of how the implementation and assessment of learning are studied is provided in MP4.

Table 1: The module of model-collaborative evaluation

Aspect	Headmasters evaluation	Teachers evaluation
Introduction	+++++	+++++
MP2	++++	++++
MP3	++++	++++
MP4	++++	+++++
Average score	4.5	4.7

Notes: symbol (+) provides the degree of teachers’ evaluation with five scale (1-5)

The use test resulted in three things, namely the notes on the improvement of the manuscript, the assessment of the model, and the in-depth improvement through FGD. Improvements to the manuscript are carried out by making notes on the manuscripts which are deemed inappropriate, difficult to understand, including suggestions. Model assessment is carried out by giving a score of 1 to 5 in all parts of the model, while to strengthen the substance of the suggestions and assessment, FGDs are carried out related to aspects that need to be improved (see Table 1).

Table 1 informs the results of the evaluation of the model-based collaborative module for teachers. Based on the data conversion standards, the overall average rating of the module substance is in the good category and can be implemented for relevant purposes. The results of discussions with all respondents concluded that in general this module can be used by paying attention to the input that has been given. In connection with the existence of a coaching model, the principal stated that “model-based collaborative modules and guides” are great for those who want to obtain ahead, but in doing so they require high commitment and dedication”. Based on the data and information from this usage test, a revision of the script is then carried out, so that it becomes better and ready to be tested for implementation.

The Implementation of MP2

The MP2 Application Test aims to make participants gain an understanding of the concept of professional teachers and the concept of PHSE learning. The form of learning experience given is assessment, discussion, and doing the tasks in the module. The implementation of MP2 begins with a brief

explanation by the facilitator about the objectives, materials, and activities to be carried out, then participants are given the opportunity to read the module, submit appropriate cases as discussion material, conduct discussions, assign participants to work on questions in the module as well as do self-evaluation, discussing the problem in working on the problem, and reinforcing and planning the next meeting. The data obtained from the application of MP2 is shown in Table 2.

Efforts to complete the study were carried out by question and answer and discussion to discuss things that were not understood by the participants, so that the maximum completeness (100%) could be achieved by all participants. Written reflection from coaching participants yields information: 1) the coaching model is very needed and useful, 2) the interaction process during coaching is fun, relaxed, remains serious, and interesting, 3) the facilitator is competent, able to innovate and facilitate participants, 4) the coaching materials related to the real problems faced by participants, and presented systematically, 5) the participants feel the benefits of coaching in adding and following the development of science, can solve problems faced in carrying out their professional duties, train critical and collaborative thinking. Suggestions that have been compiled include: MP2 material needs to be added to student character development, 3) adding photos, props, and learning media, 4) time for study theory needs to be reduced, giving more examples/best practices, 5) discipline of the participants needs to be improved.

Interviews with participants resulted in information about the application of the coaching model, namely: "I was inspired to teach well and we may already know the material, but when we discussed it there were new things that we could learn from about PHSE. Perhaps, we have not read the book for too long so that we are a bit behind the development of science, it turns out that PHSE is now experiencing development". Some respondents mentioned that "the coaching is what I need to improve the

learning. The more it is studied, the more we obtained. When he was in college, he had never done a study like this. It is getting more and more interesting to follow, and the material opens up insights about the real profession of a PHSE teacher".

The Implementation of MP3

MP3 aims for participants to gain understanding and skills in preparing lesson plans (RPP). The form of the learning experience provided is assessment, discussion, workshop, and doing the tasks in the module. The implementation of MP3 begins with a brief explanation by the facilitator about the objectives, materials, and activities carried out, giving participants the opportunity to read the module, especially about lesson plan anatomy, conduct questions and answers and discussion of the material, classically guides in reviewing examples of lesson plans in the module, assigns the task to participants to compile lesson plans in classical, group, paired, and individual ways, conduct presentations and discussions until participants are able to compile lesson plans independently, assigns to participants to work on the questions in the module, strengthen and submit follow-up plans. The application of MP3 produces data on the performance of the facilitator and participants, the level of learning completeness, and the participants' assessment of the coaching process (see Table 3).

Aspects that are still not satisfactory are the activeness of the participants in coaching and the level of completeness in their learning. Efforts to solve participant activeness problems are by continuously applying participatory coaching methods, while maximum learning completeness can be achieved by discussing the problems faced by participants in doing assignments. Reflection in writing produces information about participants' opinions about MP3, namely: 1) discussion of lesson plans further increases understanding of the importance of planning and understanding of how to

Table 2: The results of MP2

<i>Aspect</i>	<i>Facilitators</i>	<i>Participants</i>	<i>Information</i>
Performance	4.25	2.35	Facilitator: excellent Participant: moderate
Learning achievement	-	Material 1: 67.5% Material 2: 75.6% Material 3: 70.0%	Good Good Good
Formative assessment	-	4.3	Excellent

Table 3. The results of MP3

<i>Aspect</i>	<i>Facilitator</i>	<i>Participants</i>	<i>Information</i>
Performance	4.36	2.5	Facilitator: excellent Participant: moderate
Learning achievement	-	68,9%	Good
Formative assessment	-	4.43	Excellent

compile lesson plans that are correct and ready to be put into practice, 2) in-depth study of lesson plans increasingly opens insights into learning Correct PSHE, 3) class management (classical, group, pair, individual) in compiling lesson plans is very effective, systematic, fun and able to improve togetherness and serviceability, 4) by dissecting lesson plans, getting to understand the anatomy of lesson plans and better understanding the meaning and position of each -Each component of the lesson plan forming, 5) the coaching process can be used as a medium for sharing experiences between participants, 6) the availability of various lesson plan models makes it easier for participants to identify problems faced, and improve their technical skills in compiling them.

The Implementation of MP4

MP4 aims to gain understanding and skills in carrying out learning practices and assessing them. The form of learning experience given is assessment, discussion, and doing the tasks in the module. The assessment and discussion are carried out to understand the concept of learning assessment and the concept of lesson study (LS). Learning assessment is an effort to determine the quality of learning, while LS is a method to improve the quality of learning that is carried out collaboratively. The implementation of MP4 is divided into two, namely theoretical and practical studies. The theoretical study begins by giving a brief description of the objectives, materials, and activities to be carried out, giving participants the opportunity to read the module and ask questions on things that are not yet understood, work on practice questions for self-evaluation, and do reinforcement. Practical activities are carried out by holding LS. LS implementation is carried out by dividing the participants into 2 groups, namely the practice group (the teacher who teaches) and the observer group. The LS implementation procedure consists of 3 steps, namely plan-do-see (planning, implementing, and reflecting

on it). Comparison of the results of learning practices at the first and second LS shows an increase in quality. The results of observations on the components of active learning time, the number of active students, and the teacher's performance in the first and second learning practices are shown in Table 4.

Aspects that are still not optimal are the activeness of the participants in coaching and the level of completeness in their learning. Efforts were made to increase participant activeness by assisting and adding individual assignments, while to improve learning completeness was carried out by discussing problems that made it difficult for participants. Written and oral reflections by the participants resulted in the following information: 1) new things were obtained in carrying out the MP4, namely the implementation of the LS, 2) the understanding of lesson plan and its constituent components was increasing, 3) the LS process trains togetherness to improve learning, 4) understanding of Learning PSHE with a new paradigm, 5) compiling a follow-up plan of guidance as a program for teacher groups in their respective locations.

Overall, the effectiveness of coaching in this study is known from the comparison of cognitive ability test scores before (pre-test) and after (post-test) coaching. The cognitive ability test instrument was first tested using item analysis techniques to measure the difference power, difficulty level, reliability, and validity. The summary of the results of the test item analysis is shown in Table 5.

Based on the data in table 5, there are two invalid items, so that the remaining 58 items meet the requirements for use in the pre-test and post-test. Item number 1 to. 19 represents MP2, the numbers 20 to 33 represent MP3, and the numbers 34 to 58 represent MP4. The pre-test activity was carried out at the first meeting, while the post-test was carried out at the 13th meeting. The results of the different tests for the cognitive abilities of the coaching participants in Batu and Pasuruan Regency are shown in Table 6.

Table 4: The results of MP4

<i>Aspect</i>	<i>Facilitator</i>	<i>Participants</i>	<i>Information</i>
Performance	4.6	2.5	Facilitator: Excellent Participant: moderate
Learning achievement	-	Material 1: 74.7% Material 2: 59.4% Material 3: 70.3%	Good Moderate Good
Formative assessment	-	4.3	Excellent

Table 5: The result of instrument for cognitive

<i>Analysis</i>	<i>Information</i>
Difference	60 items are in a score of 0.4-0.9, so all items can be accepted
Difficulty level	56 items are in the score range 0.32-0.7: medium category; there are 4 items in the score range 0.78-0.8i: easy category
Validity	There were 2 invalid questions, namely questions number 48 and 59, so they were not used
Reliability	Overall, the items were reliable (r = 0.95)

Table 6: Pre-test and Post-Test

		Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
		<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>	99% Confidence Interval of the Difference				
					<i>Lower</i>	<i>Upper</i>			
Pair 1	Pre B – Post B	-18.86842	4.43677	.71974	-20.32675	-17.41009	-26.216	37	.000
Pair 2	Pre P – Post P	-12.4705	5.0286	.8624	-14.2251	-10.7160	-14.46	33	.000

The data in table 6 shows that coaching in the two research fields has a significant effect on the cognitive abilities of participants in carrying out learning. The application test was carried out to determine the effectiveness and efficiency of coaching using its module. To obtain a complete understanding of the effectiveness and efficiency of coaching, it is necessary to carry out an assessment of the process and its results. The assessment process is intended to obtain data and information on the level of coaching implementation, obstacles encountered, solutions to be implemented, and follow-up plans.

DISCUSSION

In this guidance implementation guide describes the social system built to regulate the roles and relationships between the coaching subjects. Mutual nurturing, caring and nurturing attitudes are the main foothold in carrying out coaching. Such an attitude is implemented in the act of supervision to assist participants in solving problems encountered during coaching (Othman & Yee, 2015). Supervision will be effective when the atmosphere that is built is collaborative, nursing, and fun. This is in accordance with Marchant et al. (2015) which mentioned that the model has four domains: classroom strategies and behaviors, planning and preparing, reflecting on teaching, and collegiality and professionalism.

The facilitator's actions can be observed from the responses displayed when interacting with participants. An effective facilitator will maintain the atmosphere of the coaching so that it is in a dynamic and conducive condition, that is, an atmosphere that does not corner, embarrass, abuse, frighten, and threaten. A good facilitator will encourage participants to actively participate, by convincing participants that they are able to carry out activities, and showing facilitating behavior, namely giving an overview of coaching materials, helping to find referral sources, guiding participants to solve problems faced independently. By displaying such a performance, it is hoped that the coaching participants can carry out activities actively, creatively, effectively, efficiently, and in a pleasant social atmosphere.

The implementation of the coaching model also shows positive perceptions and attitudes. Participants responded that the coaching model was meaningful for themselves. Most of the teachers indicated that the in-service training

courses were helpful in their professional development (Egert et al., 2018). In terms of attractiveness, in general the participants found many interesting experiences obtained in implementing the coaching model, starting from the substance of the module, the performance of the facilitators, the atmosphere of coaching, and the interaction process that is conducive to the establishment of a collaborative career. From the aspect of benefit, participants gain additional knowledge that is useful for expediting and improving the quality of learning, establishing more intensive social interactions with peers, and producing learning products needed by teachers.

This conclusion proves that the coaching model has been proven to be effective and efficient in achieving its overall goals, namely the instructional effect and the nurturant effect. Instructional effect is a direct impact of coaching which is formulated in writing in the purpose of coaching. The nurturant effect is an accompanying effect, which is an unwritten goal but it is important to appear in the coaching participants. This accompanying impact is in the form of moral values, ethics, and attitudes that accompany the achievement of written goals. The empirical evidence that this model has been tested is the various experiences gained by the participants in carrying out coaching. One that stands out is the practice of lesson study (LS). In teacher coaching, an authentic context and mentoring are needed (Miller, 2017; Vural & Coruh, 2019). LS implementation is the provision of an authentic context by carrying out field practice and mentoring. By running LS, participants are trained to improve their analytical and synthesis skills in carrying out observations, are trained to provide responses based on facts, are trained in sensitivity to tolerance and mutual respect in communicating and interacting. By holding LS, there are at least seven benefits for participants, namely coaching and professional development, reflection study of learning, collaboration, continuous coaching, establishing collegiality, mutual learning approaches, and developing a culture of mutual learning in the learning community.

The success of the process and the results of this coaching is determined by the willingness and ability of the participants to collaborate in a social setting. This supports the research results of Wiyono (2014), who mentioned that collaboration provides opportunities for teachers to be active and productive, increase

the intensity of cooperation, avoid unilateral domination, and actually generate problem-solving ideas and works for the practical benefit of implementing learning. Indeed, Garcés et al. (2016) mentioned that the implementation is proven to have a positive impact on teachers' abilities.

In addition to implementing learning practices, in carrying out the LS, a study of the material and data from the observations is also carried out. Assessment activities are an urgent need for SPHE teachers. The stereotype of SPHE teachers is field people, that is, teachers who spend most of their time teaching practical activities in the field (Preece & Bullingham, 2020). Such a situation causes SPHE teachers to neglect activities that hone theoretical skills. In addition, the problems faced by SPHE teachers are very complex, as stated by La Vine (2015), that: legitimacy, marginalization, and isolation continue to hinder the physical educators' quest for continuous professional development. The study of Beddoes (2014); Richards (2012) state that SPHE subjects have been marginalized and are considered academically irrelevant, although they are also recognized. With quality SPHE learning will contribute to students being healthy, so they can learn better. With this kind of coaching model, it is hoped that SPHE teachers can be motivated to change for the better.

CONCLUSION

The results of the use test show that the model has proven levels of suitability, clarity, completeness, and legibility, so that it is feasible and ready to be applied to the actual scene. The application test is directed to determine the meaning of the process and the results of coaching. The results of the process meaningful test show that the coaching model can be applied smoothly, can guide facilitators to perform professionally, and can improve the collaboration skills of participants in the coaching process. In terms of results, the coaching model can motivate and facilitate participants to produce learning tools, namely lesson plans, assessment instruments, and learning media. From the aspect of effectiveness, the application of the coaching model has been shown to significantly improve the cognitive abilities of participants in conducting professional PHSE learning. For academic-scientific purposes, it is advisable to replicate this research on a broader basis, or focus on developing models in one of the phases of the implementation of learning. For practical purposes, educational institutions need to disseminate this model to other fields in the region; the teacher forum needs to carry out this coaching model to solve the same problems, or other problems related to the implementation of learning; SPHE teachers with their own initiatives try out the processes and results obtained from this coaching in the implementation of the task of organizing learning.

SUGGESTION

For further researchers are expected to this model as and on subjects whose concepts relate to daily life and can enhance teachers professionalism and engagement.

LIMITATION

However, this model of this research lies some limitation. First, in the term of time allocation for implementation. The application of this coaching model requires 13 meetings with a duration of about four hours in each meeting. It requires high commitment and dedication from the participants, because this coaching is held during working hours.

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