

**THE DEVELOPMENT OF TRAINING MANAGEMENT MODEL OF SOFT SKILL LEARNING INTEGRATED WITH CHEMO-ENTREPRENEURSHIP (CEP) FOR HIGH SCHOOL CHEMISTRY TEACHERS IN SEMARANG****Anang Budi Utomo[✉], Joko Widodo, Supartono, Haryono**

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Training management of learning for high school chemistry teachers in Semarang has not been implemented properly. It can be seen from the need analysis of chemistry teachers that have not been managed well. Pedagogical competence of teachers is not optimal, so that it is necessary for developing a better training management model. This study aims to analyze the factual model, design the hypothetical model, and set the final model of training management for high school chemistry teachers in Semarang, along with the effectiveness test. The research method used was research and development method. The results showed that in the factual model, the need analysis of training was not done, so the relevance was low and the learning process was less attractive and meaningful. Moreover, the control was also not carried out effectively so it could not assess the reaction and the impact of the training. Based on that factual model, the researcher arranged hypothetical model and then compiled the final model that is the development of training management model of Chemo-entrepreneurship (CEP) integrated soft skill learning for high school chemistry teachers in Semarang. The training management model includes three stages: (1) the planning stage; (2) the implementation stage; and (3) the control stage. The Training Management Model of Soft Chemo-Entrepreneurship Integrated Soft Skill Learning (MPPSS-CEP model) has high level of effectiveness and it is easy to be implemented for high school chemistry teachers.

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INTRODUCTION

A teacher does needs special assistance in sharpening and developing professional skills (Jones & Walters, 2008: 227). One of the programs that can be used for sharpening and developing skills is through systemic training, which means that the training activity should be done continuously and repeatedly with planned and regular stages. A training which is systematic and well managed will produce qualified teachers since through training; qualified teachers will keep on developing their insight to support their profession as teachers (Rivai & Murni, 2008: 49).

Training for teachers is really needed since the learning program is a conceptual framework which describes systematic and regular procedure which functions as a guidance for planning, implementing, evaluating, and following up the teaching and learning (Arghode *et al.*, 2013; Winataputra, 2001:3). Teacher as an educator is obliged to create educational atmosphere which is meaningful, fun, creative, dynamic, and dialogite. Teacher is a determinant factor for the education success at school since teacher is a center and source of teaching and learning activity which influences the education quality improvement at school (Boyd 2015; Aqib, 2000:46).

Education quality improvement can be done through integrated learning that is a learning model which aims to habituate student to see something from various viewpoints or think more systematically (Zhou, 2013). Integrated learning is an approach which aims to make learning to be more comprehensive and based on holistic learning paradigm. Integrated learning sees the importance of seeing the bigger picture rather than just grouping the learning into small pieces which separate one another. (Kim & Cho, 2015).

The concept of soft skill in education is actually not something new. Previously, the *broad-based curriculum* (BBC) concept which is defined broadly defined as competence-based curriculum has been centered with an aim that the learners can have the skills needed by the

society. However, the competences now are still limited on the normative learning objective, not the applicative one. In the *Chemo-entrepreneurship* (CEP) integrated soft skill learning, it needs teacher's skill to conduct soft skill learning by integrating CEP into the appropriate topics to be implemented.

The training of CEP integrated soft skill learning is seen to be very appropriate to be given to the chemistry teachers. The training model given is adjusted with the need of the training participants which has clear operational and conceptual base. The CEP integrated soft skill learning is a model which is able to unite hard skill and soft skill in balance when the teachers design, implement, and evaluate the learning activity (Schulz, 2008; Zhang 2012; Idrus, 2009; Chabalengula *et al.*, 2012).

According to the interview result with the chief of high school chemistry teacher association (MGMP) in Semarang, the total number of high school chemistry teachers in Semarang is 120. The trainings conducted were mostly about the curriculum implementation which were so much administrative and did not touch the learning material development which become the student's need.

The problems that become the main topics to study are; how the factual model of chemistry teacher training management which is going on until now is, how the hypothetical model of training management development of *Chemo-entrepreneurship* integrated soft skill learning is, and how the effectiveness of the final model of training management development of *Chemo-entrepreneurship* integrated soft skill learning for high school chemistry teacher in Semarang is.

The aim of this study is to analyze the training management model of learning which is implemented up till now, make a hypothetical model design of the training management development of *Chemo-entrepreneurship* integrated soft skill learning, and examine the effectiveness of the final model of training management development of *Chemo-entrepreneurship* integrated soft skill learning for high school chemistry teacher in Semarang.

METHODS

This study aims to portray the training management which is focused on the management function which includes planning, organizing, and controlling, with R & D method by using qualitative approach, to reveal deeply the factual model of training management which is going on until now and give an alternative model of training management for chemistry teacher by designing hypothetical model of training management development of CEP integrated soft skill learning, and examining the effectiveness of the final model of training management development of CEP integrated soft skill learning for high school chemistry teacher in Semarang.

This development of training management model was conducted through 2 stages, as what had been developed by McKenny (2001), they were: (1) stage of preliminary study *as needs and content analysis*; and (2) stage of model development *as design, development, and evaluation*. In detail, the stages of research and development design were done as follow: (1) Stage of preliminary study included literature review, field study, and describing as well as analyzing the finding or the existing model. The activities done included analyzing the training management model which covered planning, implementation, and control done for the chemistry teachers. Those activities were done by direct observation to observe the training implementation document and discuss it with the practitioners to dig the

information and obstacle faced to find a solution, and ended up in describing and analyzing the model found. (2) Stage of development was done with some activities such as: Arranging the training management model design, arranging training set, conducting *Focus Group Discussion* (FGD), consultation to the experts and practitioners, and arranging the hypothetical model. Afterward, the testing of model effectiveness was done to get the final model.

RESULTS AND DISCUSSION

The model design arranged in this study implemented training management system approach. The components of the design included three stages: planning stage, implementation stage, and control stage.

There were six weaknesses of the training factual model of CEP integrated soft skill learning which was implemented so far in Semarang, they: (1) the need analysis was not done; (2) the time setting was imprecise; (3) planning and control were not done (material, instructor, strategy, and method); (4) there was no CEP analysis on the training material; (5) the training was not completed with training set; and (6) the teacher's initial competence level was not considered. From the analysis of those weaknesses, it is expected that there will be an improvement towards the existing model, so that the need and purpose of the training can be achieved effectively and efficiently.

The existing training management factual model for chemistry teacher on Figure 1.

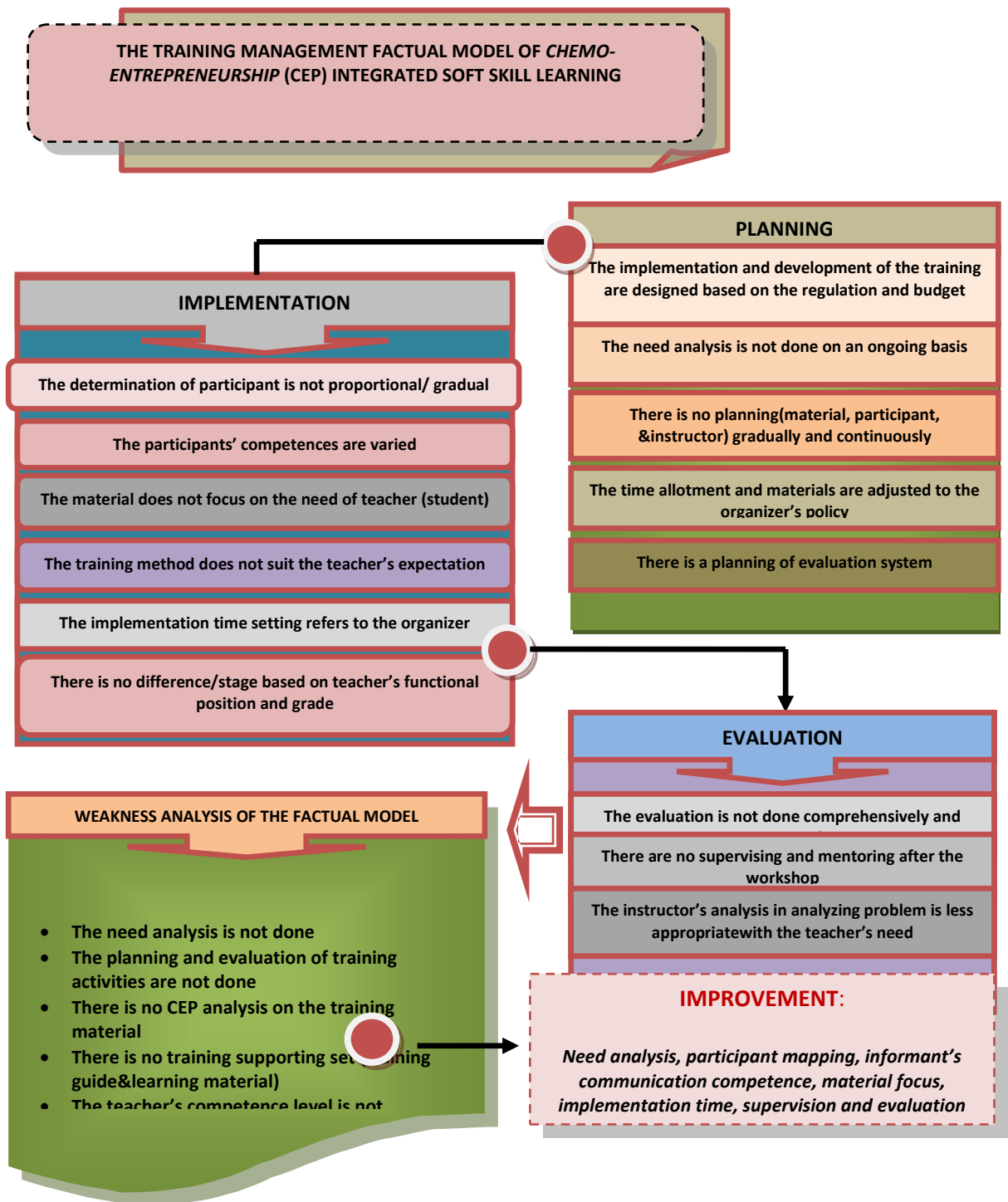


Figure 1. Factual Model for chemistry teacher

According to the suggestions from the experts and practitioners, this training model of CEP integrated soft skill learning got some changes to simplify the model and sharpen the significance of the model. From those suggestions, the researcher formulated the

training hypothetical model of CEP integrated soft skill learning on Figure 2.

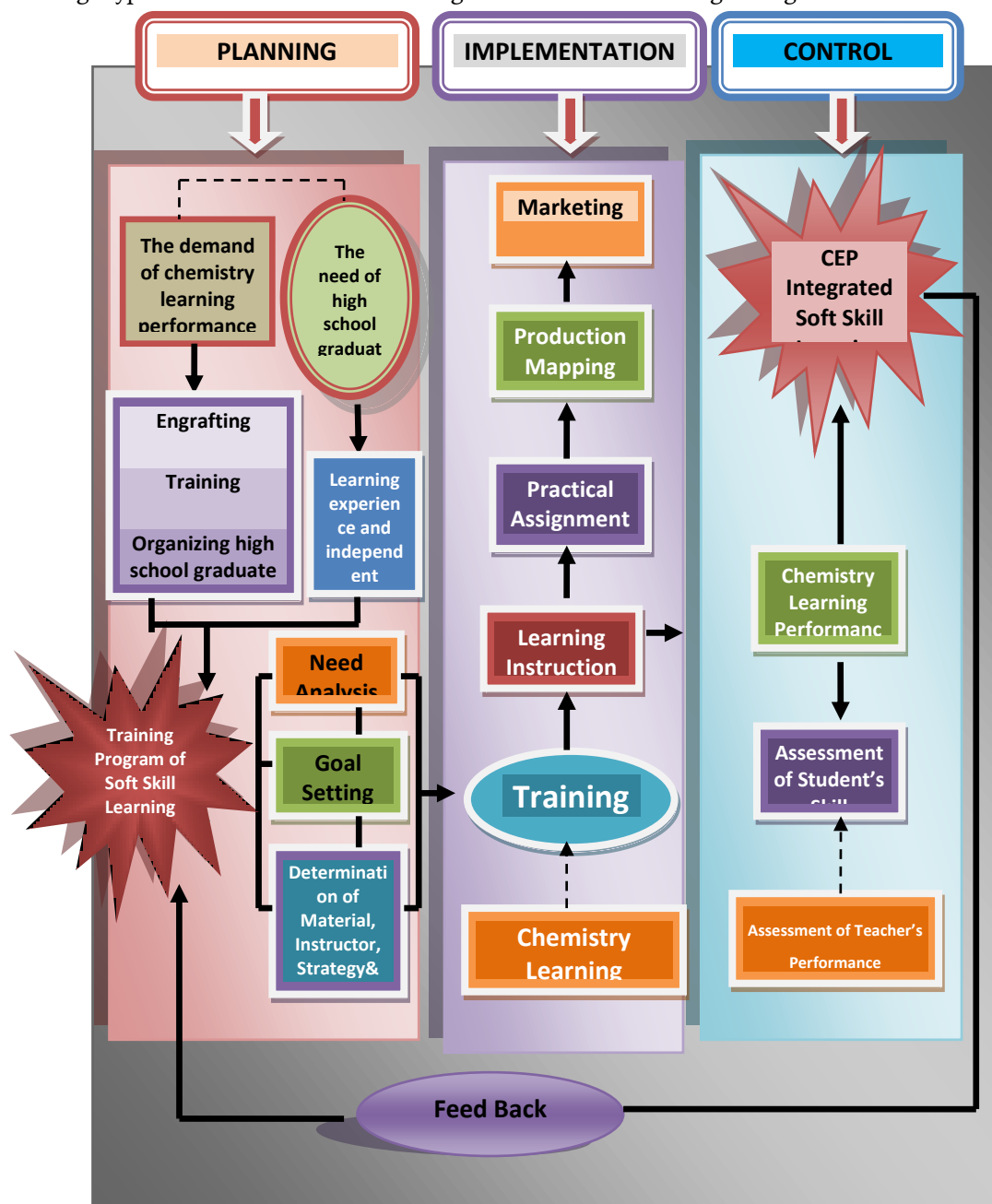


Figure 2. Hypothetical model of CEP integrated soft skill learning

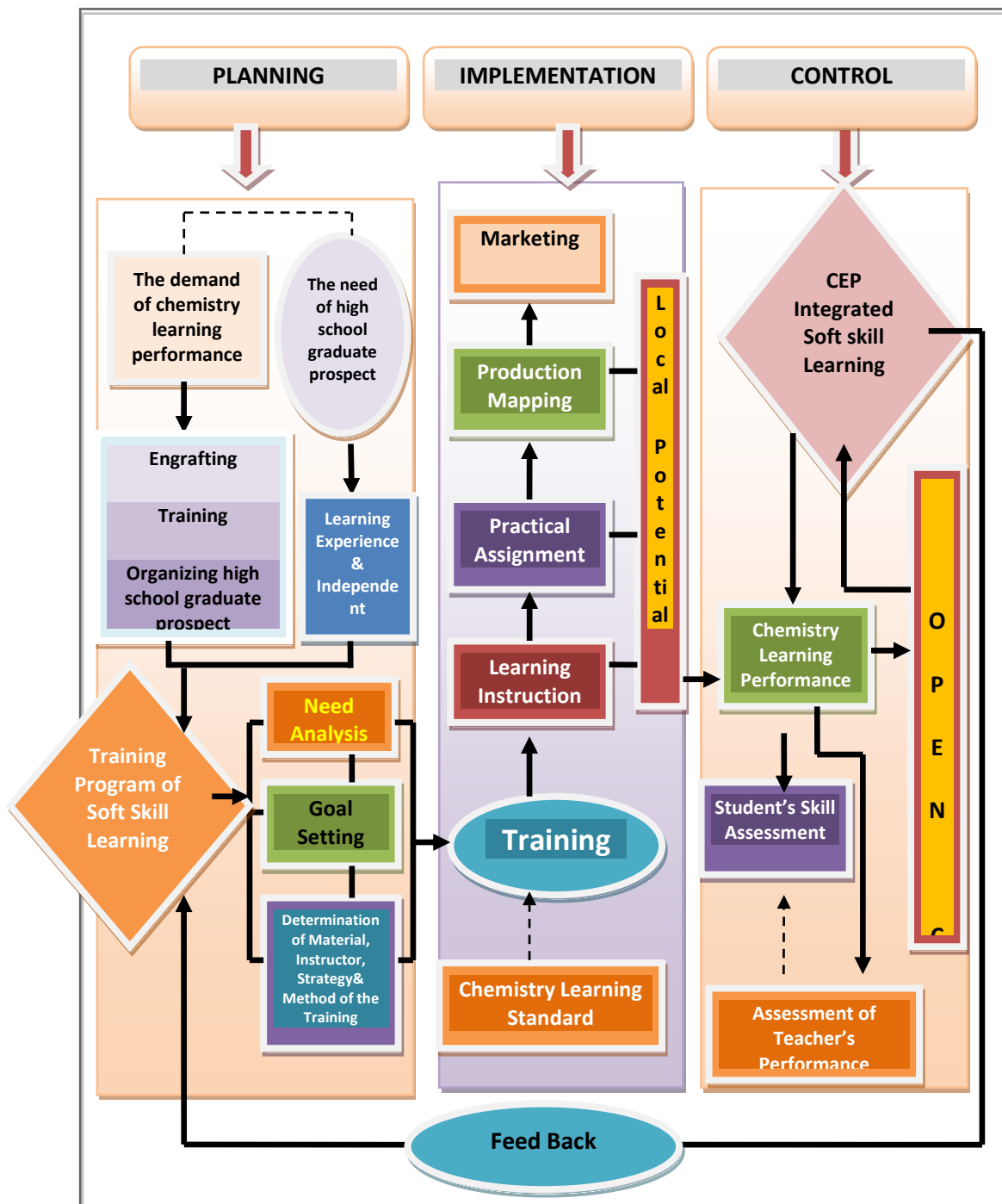


Figure 3. final model of CEP integrated soft skill learning

From the hypothetical model, the researcher conducted testing for three times, they were: (1) limited testing; (2) first expanded testing, and (3) second expanded testing. On each testing, the students were given pretest and posttest. The training participants were also given questionnaire to assess the module feasibility which included the training material,

instructor's competence, planning, and training control. In addition, there were also suggestions from the experts and practitioners to perfect the hypothetical model to be the final model. Those additional suggestions were the efforts of using local potentials in Semarang on the implementation stage and open class on the control stage. The following is the training final

model of CEP integrated soft skill learning (Figure 3).

This training management model of CEP integrated soft skill learning is given the name “MPPSS-CEP” model which is the abbreviation of *Manajemen Pelatihan Pembelajaran Soft Skill Terintegrasi Chemo-entrepreneurship*. This MPPSS-CEP model can be used for chemistry teaching and learning model in senior high school which can assist the teacher in developing chemistry teaching and learning as well as help the students in growing soft skill and entrepreneurship spirit by implementing economical chemistry lesson.

CONCLUSION

The training management model of learning implemented to the high school chemistry teachers in Semarang has not been managed well, without any preliminary need analysis, and mostly conducted by private organizers. There were only some trainings conducted by the government, but those were mostly top down only to succeed the government’s program, mostly too much administrative, and without sufficient evaluation.

It is needed to design the training management hypothetical model of *Chemo-entrepreneurship* (CEP) integrated soft skill learning for high school chemistry teachers in Semarang, so that the training management can be managed well and the chemistry teaching and learning will be more interesting and meaningful.

The final model arranged is the development of the hypothetical model which has been proven effective, which is expected to be the final model, that is the development of training management model of *chemo-entrepreneurship* integrated soft skill learning (MPPSS-CEP) for high school chemistry teachers in Semarang.

The implementation of MPPSS-CEP model is divided into three main functions: planning, implementation, and control.

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