Implementation of a Participatory Training Model in Order to Improve Competence in Writing Scientific Papers

Japar Rohimat
Universitas Pendidikan Indonesia
e-mail: japar.ro@upi.edu

Article Info	ABSTRACT
	This study aims to evaluate the effectiveness of a participatory training model in improving teachers' scientific writing competence at SMAN 1 Gunungsindur, Bogor Regency. The participatory training was designed to actively involve teachers in the entire process, from identifying training needs to applying the skills acquired. A qualitative approach was used, with observations and interviews conducted to collect data from 43 teacher participants. The results indicated a significant improvement in teachers' abilities, particularly in formulating research problems, developing scientific frameworks, and publishing their works through digital platforms. This training model also successfully enhanced participants' confidence in writing and motivated them to continue creating. Additionally, the teachers were able to produce research-based teaching modules that could be applied in classroom instruction. Ongoing evaluation and follow-up ensured the sustainability of the teachers' competence development.

INTRODUCTION

The background to this problem arises from the importance of increasing competency in writing scientific papers among teachers, especially at SMAN 1 Gunungsindur. Scientific writing is part of teacher professionalism, which not only aims to improve academic skills, but also supports career development and educational quality. Challenges faced include a lack of understanding of research methodology, writing that meets academic standards, and lack of access to relevant references. Therefore, a training program is needed that is able to answer these needs systematically.

About training, there is so much that can be said. Training is not only about transferring knowledge but also about changing behavior and building skills that can be applied in real contexts. Every training program is designed with a specific goal in mind, whether to increase productivity, improve specific skills, or change individual paradigms and attitudes. The importance of training is not only limited to the immediate results that can be measured but also to the long-term impact on the development of individuals and the organization as a whole. In an ever-changing world, training is key to preparing individuals to face new challenges and opportunities. It's not just about getting information into someone's mind, but about inspiring and motivating them to learn more. Effective training must be able to adapt to changing needs and empower individuals to take initiative in their career development (Ginting, 2018, p. 43)

Training not only changes one's technical skills but also hones interpersonal and leadership skills. This creates an environment where individuals feel valued and encouraged to continue learning and growing. In this context, training becomes not only an investment in the individual but also in an inclusive and progressive organizational culture. Today, with advances in technology, training is no longer limited to physical classrooms. The digital platform allows access to training from anywhere and at any time, increasing flexibility and accessibility for

individuals worldwide. However, new challenges arise in ensuring the quality and interaction necessary for effective learning. The role of mentors and instructors in training is very important. They are not only conveyers of information but also facilitators in an inspiring and motivating learning process. Their involvement in identifying individual needs and adapting learning approaches is key to successful training that influences real change (Simamora, 2017, p. 5).

Training is not just about giving people new skills but also about building their confidence to apply those skills in real-world situations. It involves simulations, case studies, and challenging exercises to prepare participants for the challenges they may face in the future. In the digital era, training also plays an important role in overcoming the skills gap. This involves training to develop digital skills, data literacy and the ability to adapt to new and emerging technologies. This initiative is not only relevant for individuals but also for overall economic progress. Lifelong learning is a core value of effective training. This applies not only to individuals but also to organizations seeking to remain relevant and competitive in an ever-changing marketplace. In this context, training never ends but continues to evolve according to the demands of time and changes in the business environment. In the author's view, effective training is about empowering individuals to become the best version of themselves. This involves developing core skills, such as communication, leadership, and problem solving skills, that support their personal and professional growth (Sondang, 2015, p. 6).

Participatory Training Model (Participatory Training Model). This training model includes 10 sequential activity steps which can be described as follows. This training model is actually an update (innovation) of the models previously described. The participatory learning model actually emphasizes the learning process, where learning activities in training are built on the basis of active participation (participation) of training participants in all aspects of training activities, starting from planning, implementing, to the stage of assessing learning activities in training. In principle, the efforts made by trainers are more focused on motivation and involving activities. (Mustofa Kamil, 2010. p.27).

RESULTS AND DISCUSSION

Based on the module "Participatory Training Model to Improve Competence in Writing Scientific Papers at SMAN 1 Gunungsindur", highlighting each step of participatory training:

1. Identification of Training Needs: Research begins by identifying the needs of training participants, especially related to their difficulties in writing scientific papers. Most teachers expressed that they needed guidance in choosing the right research topic and understanding the appropriate structure of scientific work. These results were obtained through initial surveys and group discussions.
2. Job Testing and Analysis: Furthermore, this training emphasizes the importance of understanding the roles and responsibilities of teachers in their academic duties, including scientific writing. PAI, PJOK, and Deputy Principal (Wakasek) teachers at SMAN 1 Gunungsindur were identified as the main participants who needed this training to improve the quality of their work.
3. Classification of Training Participants: Based on previous writing experience, participants are grouped into three categories: beginner, intermediate, and advanced. These groups are organized to provide a more specific approach, according to each teacher's level of ability and needs.
4. Formulate Training Objectives: The main objective of this training is to improve scientific paper writing skills, especially in selecting relevant topics, formulating research problems, and compiling scientific work frameworks that comply with academic standards.
5. Curriculum and Syllabus Design: The designed curriculum involves the basic theory of scientific writing, direct writing practice, and the publication of scientific papers. The syllabus includes steps starting from topic selection to preparing research-based teaching modules.
6. Training Program Plan: The training program is structured in stages, involving theory and practical sessions, where each participant is given guidance for compiling scientific work based on the research they have conducted. The facilitator provides guidance throughout this process.

7. Development of TOR (Terms of Reference): training TOR is prepared to direct the entire training process. This TOR includes objectives, training methods, duration, and evaluation of the training program to ensure all parties involved understand clear expectations.

8. Implementation of the Training Program: This program is implemented in two days with a structured schedule. On the first day, participants were given theories about the structure of scientific work and research methodology. The second day focuses on writing drafts of scientific papers with direct guidance from mentors.

9. Training Program Evaluation: Evaluation is carried out based on the results of scientific work produced by participants. This evaluation measures the extent to which participants are able to apply theory in their writing, including analysis of the quality of the drafts produced during the training.

10. Training Follow-up: Follow-up to this training includes further guidance for participants who need further assistance in completing their drafts, as well as encouraging the publication of scientific papers in educational journals or other platforms such as PMM (Platform Merdeka Mengajar).

11. Technical Barriers and Solutions: One of the barriers identified was participants' lack of digital skills in using applications such as Mendeley for reference management. To overcome this, participants are given special training on the use of reference software.

12. Data Analysis and Methodology: Many participants lacked confidence in selecting and applying appropriate research methodology. Therefore, additional sessions on qualitative, quantitative and mixed research methodologies were organized to help them.

13. Collaboration in Writing: This program also facilitates collaboration between teachers in compiling scientific work, with the aim that they can share ideas and feedback in the working groups that have been formed.

14. Writing Abstracts and Introductions: The focus of the training also includes how to write effective abstracts and introductions, where participants are taught to create clear problem statements and adequate introductions.

15. Publication of Scientific Work: One of the expected results of this training is the publication of teachers' scientific work in journals or social media. They are also encouraged to utilize the PMM platform to share their research results.

16. Scientific Writing Ethics: Apart from technical skills, participants are also taught about the importance of writing ethics, including how to avoid plagiarism and cite sources correctly.

17. Time Management for Writing: Most participants admitted to having difficulty managing time between teaching and writing. Therefore, material on effective time management is provided to ensure they can complete their written work on time.

18. Writing Research-Based Teaching Modules: Teachers are encouraged to compose research-based teaching modules, which can then be used directly in the classroom learning process.

19. Use of Technology for Publication: Participants are also taught how to use technology to publish their scientific work, such as reference management applications and digital platforms for publishing work.

20. Motivation and Confidence in Writing: This training also focuses on building participants' confidence in writing and publishing their scientific papers, especially for those who are writing scientific papers for the first time.

Effective training is about empowering individuals to reach their full potential, driving innovation and creating added value for the organization. This involves a commitment from all parties to create an inclusive and sustainable learning environment that facilitates sustainable growth and development. Managing participatory training according to Ikka Kartika (Fauzi, 2011) involves several main principles which aim to ensure that training participants are actively involved in the learning process. The following are several principles that are usually applied in managing participatory training:

a. Inclusivity and Active Engagement: Participatory training emphasizes the importance of actively involving all participants in every stage of the training. Participants are expected to participate in discussions, share experiences, and engage in practical activities. Experience-Based Learning: Participants are given the opportunity to learn from their own experiences and from the experiences of others. This can be done through case studies, simulations, role-playing, and group activities.

Collaboration and Cooperation: Participatory training encourages cooperation and collaboration among participants. Group activities and joint discussions are used to build shared understanding and strengthen interpersonal skills.

b. Flexible Facilitation: The facilitator acts as a companion who helps participants in the learning process. They must be flexible and responsive to the needs and dynamics of the group, and able to adapt training methods and strategies according to the situation. Participant Empowerment: Participatory training aims to empower participants by giving them control over the learning process. Participants are encouraged to take initiative, make decisions, and direct their own learning.

c. Evaluation and Reflection: The process of evaluation and reflection is an integral part of participatory training. Participants are given the opportunity to reflect on their learning, provide feedback, and plan follow-up actions based on the results of the training.

d. Contextual and Relevant: Training materials and activities must be relevant to the context and needs of participants. This ensures that the training provides practical value and can be applied in the participant's life or work. By applying these principles, participatory training can be an effective tool for developing participants' skills and knowledge, and building dynamic and collaborative learning communities.

"Training Models" by Mustofa Kamil (2012), the following is a summary of various training models:

1. The Importance of Training: Training is a program to increase participants' knowledge and skills. Training models develop according to the needs of the business world, government and other organizations.

2. Training Needs Assessment Model: a. Inductive: Identify the immediate needs of participants, effective for adapting material to specific needs but less efficient for large groups. b. Deductive: Needs are identified in a general way, suitable for mass training, although less effective for participants with a variety of specific needs. c. Classic: Learning materials are adapted to the curriculum, bringing participants' initial abilities closer to the training material.

3. Model Based on Process and Material (Subject Matter Analysis):There are various models such as the four-step, seven-step, and nine-step models, which include needs analysis, objectives, method selection, and evaluation.

4. Participatory Training Model: Emphasizes the active participation of participants in the entire training process, using various techniques to increase interaction and learning effectiveness.

Each model has its own advantages and challenges that are tailored to the needs, characteristics of participants and training objectives.

Implications in Research: The participatory training model was chosen because of its benefits in encouraging direct improvement in scientific writing skills. In this training, teachers participate actively, learn through experience, and engage in practical exercises that are relevant to their daily tasks. The main benefit of this model is the ability of teachers to directly apply the skills learned in real contexts, which will support their scientific writing skills. This participatory approach is expected to significantly improve skills and accelerate the improvement of their competencies.

CONCLUSION

The conclusion of this participatory training module is that the training aims to improve teacher competence in writing scientific papers at SMAN 1 Gunungsindur. With a participatory approach, this training actively involves teachers in the learning process, starting from identifying needs, determining goals, to preparing teaching modules and publishing scientific papers. The training focuses on improving writing skills, data analysis, scientific publications, and preparing research-based teaching modules. Evaluation and follow-up are carried out to ensure that teachers are able to apply the knowledge gained and produce quality scientific work.

REFERENCES

Fauzi, I. K. (2011). *Mengelola Pelatihan Partisipan.* Bandung: Alfabeta.

Ginting, M. (2018). *Pelatihan dan Pengembangan Sumber Daya Manusia.* Jakarta: Rajawali Pers.

Simamora, H. (2017). *Manajemen Sumber Daya Manusia.* Jakarta: STIE YKPN.

Sondang, P. (2015). *Manajemen Sumber Daya Manusia.* Jakarta: Erlangga.