International Journal of Scientific and Management Research
Volume 08 Issue 01 (January) 2025
ISSN: 2581-6888
Page: 1-28

Increasing Training Effectiveness Through Strengthening Instructor Competence, Training Design, Training Environment, Training Materials and Achievement Motivation

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DOI - http://doi.org/10.37502/IJSMR.2025.8101

Abstract

This study aims to produce a strategy to improve training effectiveness by strengthening the variables of instructor competence, training design, training environment, and training materials as independent variables and achievement motivation variables as intervening variables. A population of 685 resulted in 253 samples taken by proportional random sampling in 9 Fields of Expertise of Business and Tourism Vocational High School Teachers Participants in the BBPPMPV Business and Tourism Upskilling and Reskilling Training. This study used a survey method with a path analysis approach and SITOREM analysis. The results of this study can be concluded: 1) There is a significant positive direct effect between instructor competence, training design, training environment, and achievement motivation on training effectiveness (Y); There is a significant positive direct effect between instructor competence, training design, training environment and training on achievement motivation; There is a significant positive indirect effect between instructor competence, training design, training environment, and training materials on training effectiveness through achievement motivation. Achievement motivation cannot mediate instructor competence, training design, or training environment on training effectiveness. The results of the SITOREM analysis show that the indicators that are still weak and need to be improved are: 1. interpersonal skills, 2. clarity of training objectives, 3. alignment of learning components, 4. learning support, 5. visual and interactive quality, 6. up-to-date and accurate, 7. challenging objectives, 8. results orientation, 9. response to feedback, 10. learning support, 11. participant involvement, 12. learning, 13. reaction.

Keywords: Training Effectiveness, Instructor Competence, Training Design, Training Environment, Training Materials, Achievement Motivation and SITOREM

1. Introduction

Education is one of the factors that influences the sustainability of a nation and state. The current educational approach is determined by government regulations stating that education in Indonesia must produce individuals who can adapt to developments in the era, and technology, and have the ability to think creatively, innovatively, critically, and competitively at the global level. The regulation of the Ministry of Education, Culture, Research and Technology Number 3 of 2020 concerning Elementary and Secondary Education Process

Standards, is regulated learning methods that follow the needs and interests of students and develop students' social, emotional, thinking, and spiritual abilities. This changes the way of thinking about the goals of national education. In the development of science and technology, education now focuses more on developing life skills and skills that are not too technical. One of the efforts to develop an education strategy is organizing vocational education. Vocational education is part of the education system that aims for someone to be able to work in one job group or one particular field of work (Kulsum, 2020). Vocational education focuses on improving applied expertise, technical skills, and special skills needed to perform work in a particular field of expertise optimally and professionally adjusted to the demands required by industry or other specific sectors. Vocational education organizes educational programs that refer to work training, direct work practices, and mastery of skills in certain fields of competence that are following DUDI. To overcome the problems of vocational education currently faced, various solutions and actions are needed that can improve the quality, suitability and affordability of vocational education, including: 1) Reskilling and upskilling to improve the quality of educators and education personnel by organizing continuous education, training and development for vocational teachers so that they have competencies that are in accordance with the fields of expertise they teach; 2) Refinement and adjustment of the curriculum based on the needs of the business world and industry, and making DUDI a partner for educators and students to carry out direct work practices in DUDI; 3) Investment in infrastructure, improving facilities, equipment and supporting facilities that are learning media that are relevant to DUDI needs; 4) Developing student competencies, encouraging an entrepreneurial spirit in students so that they are able to create their own jobs and ensuring that vocational programs are accredited so that graduate qualifications can be recognized both nationally and internationally.

The need to improve the quality of vocational education graduates who have technical skills, and are innovative and resilient in adapting to the dynamic DUDI, is the basis for the transformation of vocational education. The transformation carried out includes; 1) Organizing short and flexible training, focusing on certain competencies in depth according to the needs of DUDI which continue to develop through stackable certificates and micro-credentials; 2) Reskilling and Upskilling, improving the skills and abilities of educators and education personnel so that they are able to adapt to the development of science and technology in DUDI; 3) Establishing partnerships with DUDI, including the development of infrastructure in vocational education units and being involved in compiling and designing learning curricula that are in accordance with technological developments and DUDI needs; 4) Learning with technology support, prioritizing the skills needed to face the Industry 4.0 era through the use of digital technology and teaching factories; 5) Industrial internships, providing opportunities for educators and students to gain skills and abilities through direct experience in DUDI; 6) Developing the Center of Excellence Vocational School (SMK-PK) program, realizing educational units that have superior educational quality, facilities and infrastructure, curriculum alignment and active partnerships with DUDI compared to other educational units.

Various efforts are made to reduce unemployment rates, especially for vocational school graduates, and the preparation of vocational graduate human resources for the future. 1) Upskilling and Reskilling for educators and students focused on practice and internships so that educators and students have competencies that are following DUDI competency needs, regional potential, and labor market demand; 2) Creating links and matches or alignment

between the world of education and industry so that information is obtained on the map of real DUDI needs as a basis for curriculum development and graduate profiles; 3) Implementing project-based learning methods; 4) Revitalizing vocational training, not only in the form of education but also training that is integrated with industry and the world of work; 5) Training for educators and students. With training, the exchange of knowledge and skills from DUDI to educational elements is easier. Vocational high school graduates who have participated in training and internships at DUDI have the competencies, skills, experience, and behavioral attitudes desired by DUDI compared to graduates who have never participated in training and internships. Training is one of the efforts made to provide more specific competency improvements in a field of expertise. The initial training model was carried out simply where training participants only learned from a teacher or tutor. The next development was joint learning activities in groups with the same learning objectives. Training is an important policy for improving teacher competency which aims to improve technical skills and also strengthen mental attitudes. Training is a way to make job responsibilities match the teacher's abilities, skills, abilities and expertise. In general, school management strongly recommends providing opportunities for teachers to learn and develop, so that they can improve their knowledge and skills which will ultimately make the teacher's work better.

Teachers are one of the main factors determining the success of students so that they have the appropriate and currently needed competencies (Sunardi and Agus, 2016). Teachers play a role in the level of quality of education and the quality of student graduates, in accordance with Law Number 20 of 2003 (article 39, paragraph 2), Teachers are professional workers who have the task of planning, implementing the learning process, providing guidance and training for students. The development of teacher professionalism must continue to be carried out as an effort to improve competence and performance so that they can adapt to the development of science and the needs of DUDI. Upskilling and Reskilling training is needed for vocational high school teachers because: 1) Facing the Industrial Revolution 4.0, the revolution 4.0 has a significant influence and impact on the world of education where there is a shift in the need for educational personnel who can manage industrial digitalization; 2) Expanding cooperation between vocational schools and DUDI, the collaboration that is established is a means of increasing work innovation with the exchange of knowledge and skills as an effort to improve the competence of educators and students based on the knowledge and skills used and needed by DUDI; and 3) Producing new perspectives in learning, training that will increase the ability of educators to create classroom learning methods with new perspectives.

The Center for the Development of Quality Assurance for Vocational Education in Business and Tourism (BBPPMPV Bispar) is one of the Technical Implementation Units (UPT) at the Ministry of Primary and Secondary Education (Kemendikdasmen). BBPPMPV Bispar plays a role in improving the competence of teachers and education personnel, and developing and ensuring the quality of vocational education, especially in the field of Business and Tourism expertise. Based on the Regulation of the Director General of Vocational Education Number 24 of 2022, the duties and functions carried out by BBPPMPV Bispar are to play a role in improving the quality and organizing links and matches between educational units and DUDI. One of the implementations of the Regulation of the Director General of Vocational Education is by organizing an Industry-standard Upskilling and Reskilling program for Productive Teachers of SMK with Business and Tourism Expertise Competencies so that teachers can improve their professional skills comprehensively. Upskilling is a program to improve the skills

of productive vocational school teachers, while Reskilling is a new skills training for productive vocational school teachers.

Upskilling and Reskilling are new breakthrough programs from the Ministry of Education and Culture Research and Technology which are mass marriage programs between Vocational Education and DUDI. BBPPMPV Bispar as the UPT of the Ministry of Elementary and Secondary Education acts as a bridge that bridges collaboration between schools and industry so that partnerships, cooperation, and harmony can be established. The implementation of Upskilling and Reskilling training aims for teachers to be able to improve their professionalism in the fields of expertise they teach following DUDI standards and needs, gain direct work experience in DUDI so that they can learn the culture and work climate in DUDI to then disseminate to colleagues and students as an effort to develop character and soft skills, establish cooperation in compiling and aligning curriculum that is adjusted to industry standards and needs.

Instructors are important positions in the success of professional development. Instructors play an important role in the development and change of organizations, achieving goals and competencies as well as the knowledge and skills needed by participants. A trainer influences training participants. According to the Cambridge Dictionary (2017), a trainer is someone who teaches skills to humans in preparation for work, activities, or sports. The instructor's job is not only to convey learning materials, but instructor is required to be able to apply concepts from the material presented so that the material learned affects the improvement of skills and knowledge of participants who take part in the training. The role of the instructor is so complex in the teaching and learning process in its efforts to lead the beneficiaries in a better direction. The instructor is a facilitator or information needed by the beneficiary. He is present to provide teaching and education. The instructor is the one who plays the educational role because he is present in contact and interacts directly with the beneficiary (Soedjarwo, 2017). Therefore, every instructor activity plan must be solely for the benefit of the beneficiary, following his profession and responsibilities.

The quality of human resources will greatly depend on the implementation of the training carried out. The success of a training implementation is measured by the extent to which the results of the training are transferred by the training participants in the workplace (transfer of training). Thus, the satisfaction of training participants will greatly determine the transfer of training. In recent years, empirical support has been found for the relationship between the quality of service received and business performance (Athanassopoulos, Gounaris, & Stathakopoulos, 2018), which may be difficult to replicate. As a result, formal instruments to measure consumer perceptions of the services provided are very important, especially because they can be evidence of consumer evaluations of service quality that result in satisfaction or dissatisfaction. This is then linked to repurchase power, loyalty, and the desire to maintain long-term relationships with service providers. According to Ivancevich (2010), there are three criteria used to assess training. These include internal, external, and participant reactions. Internal evaluation is an evaluation that is directly related to training content, such as whether the training content has been mastered. These external criteria include employee performance evaluation, the level of learning achieved during employee training, increased productivity, and reduced employee turnover, so external evaluation is a measure of employee effectiveness related to the objectives of the training program, such as increased third, participant reactions are what participants feel about the training that has been done.

Effectiveness is the relationship between output and the goals or objectives to be achieved. An activity process is considered effective if it achieves the goals and final targets of the policy. The effectiveness of training and development can be measured by the average time to diagnose problems, instructor success rate, overall employee productivity, ROI (return on investment), and customer or training satisfaction. From the various definitions above, effectiveness can be interpreted as the ability of an organization to achieve planned goals adequately. Therefore, training effectiveness is the ability of a company to achieve planned training goals adequately. Training effectiveness can be measured by training evaluation (Mahmudi, 2016). Meanwhile, according to Mardiasmo (2018), Effectiveness is a measure of the success or failure of an organization in achieving its goals. An organization operates effectively when it achieves its goals. The measure of effectiveness describes the effectiveness and extent of the effectiveness (results) of the program's results in achieving program goals. The greater the contribution of the output produced to achieve the goals or objectives that have been determined, the more effective the work process of the organizational unit. Human resource factors such as skills, attitudes, work values, needs, and population are human resources. The procurement of these resources depends on human resource management, and to produce reliable and high-quality human resources, it is necessary to be selective in selecting, training, and retaining human resources, from the withdrawal of human resources. Effectiveness is the relationship between performance and objectives, and can also be described as a measure of the extent to which an organization's performance, policies, and procedures are extended to the next level. Effectiveness is also related to the success of public sector operations so that an activity is said to be effective if it has a significant impact on its ability to provide public services. This is a predetermined goal (Beni. 2016).

Research conducted by Fan (2020) tries to explore things that influence the effectiveness of training from an employee perspective. To achieve this goal, this study uses a data collection method based on numbers, and data is collected from a small portion of employees working at the Chinese company Suning.com in conclusion, less than half of Suning.com employees feel that the training provided by the company is useful. There are several very important things that affect how effective a training is. There are many employees who say that they do not get an analysis of what they need for training, and the results of the training itself do not match the work they are currently doing. An additional 40% of respondents said that the required learning materials were not provided during the learning process. The training schedule affected its effectiveness. According to respondents, the training was conducted outside of regular working hours and the time given was not enough. Finally, some people in the company said that management or teachers did not check how well the training worked after the training was completed. These factors hinder effective training at Suning.com from an employee perspective.

2. Literature Review

2.1. Training Effectiveness

Training is a learning activity using certain methods to improve abilities, skills, expertise, and skills. In training, there is a process carried out as an effort to reinforce certain aspects to improve the knowledge, skills, and attitudes of participants so that they can develop and be independent due to the rapid development of science and technology. Training is a means for

group members to learn and develop the competencies needed when working to achieve organizational goals, Noe (2023).

Robin (2013) said that training is a program that aims to encourage and create a desire in a person to improve their skills when doing their work and to increase knowledge related to the work environment and the organization as a whole. Darmawan, et al., (2013) argue that training is an effort to improve the abilities and knowledge of employees so that they can work effectively and efficiently. According to Rivai (2014), training is a process that is carried out systematically as an effort to change employee behavior so that organizational goals can be achieved. Training is one way to develop employee abilities and expertise so that they can adapt and understand technology that is constantly developing from time to time (Sembiring, 2010).

Khurotin and Afrianty (2018) stated that training is a short-term cycle using structured and coordinated methods aimed at ensuring that employees gain the expected knowledge and skills. Sari (2018), training is an effort to provide, obtain, improve and maintain work skills. Training is a systematic process for achieving the skills, knowledge, and attitudes needed to be able to carry out tasks and responsibilities properly Goldstein and Ford (2018).

Taylor (2019) defines training as a process to improve employee skills, knowledge, and attitudes in order to achieve organizational goals. Training is an effort to improve work performance in a particular field that is the responsibility, Gomes (2019). To improve employee performance, knowledge, and skills, a policy is needed to organize training. A process to obtain and improve a person's work abilities and increase an employee's productivity. Training is part of the process of increasing human capital capitalization that can support organizational goals, Wibowo, et al., (2019).

Training is an activity needed to obtain and implement knowledge, competence, and skills in a particular field of expertise in an organization (Hajjar and Alkhanaizi, 2018). Training is an activity held for a certain period designed so that participants achieve the objectives of the training held (Adnan and Khalid, 2021). Furthermore, Kajwang (2022) defines training as a form of learning activity that aims to improve competence and self-skills. Through the training that is followed, skills will be obtained that are useful for improving the abilities of each training participant, Lan (2021). Based on this definition, the author concludes that training is a process of an activity that aims to train training participants to obtain knowledge, improve competence, change attitudes, and develop themselves so that they are able to face, adapt, and compete with changes that occur in the organizational environment. There are five indicators of training according to Wahyuningsih (2019), namely 1). training objectives must be realistic and easy to implement. 2). materials must be easy to learn and use. 3). training methods are participatory learning methods. 4). qualification of participants, the qualifications of participants who take part in the training must be in accordance with the required qualifications. 5). qualification of trainers, mastering training materials, the ability to motivate and inspire participants to be actively involved in taking part in training, factors that influence training according to Kasmir (2016) are: 1). training participants. 2). mentors or trainers. 3). training materials. 4). training location. 5). training environment. 6). training time. 7). other factors that can influence the implementation of training.

2.2. Training Effectiveness

Training effectiveness is a design to measure success in the goals and objectives to be achieved from a training activity. A training is considered successful if the participants who take part in the training get results and can implement them. The success of training is marked by the quality of good graduates as a form of improving Human Resources Wahyudi and Retnowati (2014). Effectiveness is a broad concept and is difficult to measure in an organization (Daft, 2018). This considers various variables in an organization to evaluate the extent to which organizational goals are achieved.

Mindtools (2016) defines effectiveness as the extent to which something can produce the desired results. The most famous model used to measure the effectiveness of a training program is the Kirkpatrick model which discusses the specific relationship of the four steps to measure training effectiveness. 1) The first step is reaction, measuring how participants understand the training that is being followed. By measuring participant reactions, it will improve future training programs and identify important topics that are not discussed during the training. 2) The second step is learning, measuring what has and has not been learned by training participants. 3) The third step is behavior, evaluating how the behavior of training participants changes after training. 4) The last step is the results, including the benefits and results of training, which are beneficial to the organization (Kirkpatrick & Kirkpatrick, 2016).

The use of the Kirkpatrick evaluation model is still relevant because it has several advantages, namely: 1). a comprehensive framework, providing a comprehensive picture of the effectiveness of training, consisting of important aspects ranging from reactions to the impact of training on the organization; 2). practical and easy to understand; 3). flexible and easy to apply; 4). the use of this model has been carried out for a long period so its resilience and relevance have been proven to be applied in various contexts.

Murniati and Rahmat (2021) argue that the effectiveness of training is influenced by four factors, namely the response of participants during training activities, how participants learn, changes in behavior after participating in training and implementing training results. Factors that influence the effectiveness of training can be internal or external. Internal factors include participant characteristics, motivation, and behavioral attitudes, while external factors include trainer competence, training environment, and social environment. In line with Marcellyna, Sutarto (2017) argues that the effectiveness of training is influenced by factors of competence, motivation, training environment, commitment, and facilities and infrastructure.

Soebagio (2003), Training is an educational activity for employees or prospective employees related to efforts to improve knowledge, skills, and attitudes to achieve organizational goals effectively and efficiently to meet the requirements of certain functional positions. The indicators of effectiveness are as follows: 1) training is an activity to improve and develop the work abilities of an employee; 2) helping in understanding practical knowledge and helping to improve the skills, abilities, and attitudes of a person needed by the company in achieving goals.

From the explanation of the theories above, it can be synthesized that the effectiveness of training is the level of achievement of training objectives in improving the ability to carry out work and achieve predetermined work results. With creativity indicators, namely: 1) reaction, 2) learning, 3) behavior, and 4) organizational results.

2.3. Instructor Competence

The trainers in the Upskilling and reskilling activities in this study are called facilitators, consisting of Widyaiswara (WI) from BBPPMPV Business and Tourism, Mentors from Productive Teachers at SMK and industry practitioners who have a background in expertise in accordance with the required competencies.

Ahmed and Sayed (2021) argue that trainers are one of the main components in the competency-based training & assessment approach, which is designed to suit employee training. Wibowo (2013) states that competence is the ability to carry out or do a job or task based on skills and knowledge and supported by the work attitude required by the job. Knowledge and skills are visible and can be assessed and embedded in a person's life through appropriate training and development activities, while the other three are hidden and difficult to develop. Trainers must teach in a focused and disciplined training atmosphere (Olowoselu, et al. 2016).

Competence is a combination of several components including knowledge, skills, attributes, and individual traits, all of which lead to superior performance (Haruna 2017). Competence is the knowledge, skills, and abilities that are expected to demonstrate effective performance in any work environment. Tran and Nyland (2013) define competence as knowledge, skills, attitudes, behaviors, and actions that are important for directing competence and obtaining the standards required in the labor market.

According to Klein-Collins (2013), competence is the result of learning. Competence can be measured, verified, and applied in various situations. Competence can be used in terms of individual learning, but can also be used in terms of mastery-based education, proficiency-based education, and performance-based education (Patrick, et al., 2013). There is no single definition of Competence agreed upon by experts, although various definitions of Competence have many similarities (Evans, et al. 2021). Competence is a major factor in performance. Competence can be broadly interpreted as various types of psychological or behavioral characteristics related to success in a person's life. Competence is a basic character that is directly related to individual work performance. Competence is a concept of nature, self-concept, attitude, value, knowledge, and skills of each individual that can be measured and produced to significantly differentiate the level of performance whether superior, average, or ineffective (Spencer & Spencer, 2013).

Wibowo (2013), states that there are five types of competency characteristics, namely 1) motives, things that are continuously thought or desired by someone and then manifested in actions or deeds. 2) nature, physical characteristics, and consistent responses to information and situations. 3) self-concept, attitude, values, and self-image of a person. 4) knowledge, information that a person has in a particular field specifically. knowledge is a complex competency. 5) skills, the ability to perform certain tasks, both physical and mental tasks. Wibowo also stated that the competencies that must be possessed by a worker include: a) flexible, b) motivation to study the development of new science and technology enthusiastically and skillfully collaborate and interact with each other. c) Motivation to innovate and improve competence. d) Motivation to work under time pressure, expected to have good stress management. e) Able to work and cooperate cooperatively in groups. Based on the theories put forward by experts, it can be synthesized that instructor competence is the knowledge, skills, attitudes, and abilities possessed by the instructor in ensuring the success of the training process to meet the expectations and goals to be achieved by the training participants supported by the

utilization of the development of innovations that are following the demands of the development and progress of science and technology. The indicators are: 1) mastery of training material; 2) interpersonal skills; 3) instructional skills; 4) professionalism; 5) training management.

2.4. Training Design

Nafukho, et al., (2017) define training design as the effectiveness and relevance of a training. Training design is a factor that has a significant influence on learning transfer. Yunus and Yasin (2014) conducted a study on the characteristics of training participants, training design and work environment, which affect the training transfer process through face-to-face interviews. The training design consists of six components, including the ability of participants to transfer training, training materials, knowledge implementation, learning design, training curriculum and learning effort performance. The findings show that relevant materials are very important in encouraging training transfer capabilities. The training design process refers to a systematic approach to formulating training planning. Training design can be interpreted as a systematic planning stage before developing or implementing training activities. The concept of training design is expressed in the form of a model.

The stages of training design developed by Dick and Carey (2011) are as follows: 1) identifying training objectives, applying a training design model, which will determine the abilities that participants must have after attending the training. 2) analysis instructional, a procedure for determining the relevant skills and knowledge needed by training participants to achieve training abilities or objectives. 3) analysis of training participants and context, analyzing the characteristics of training participants. 4) developing assessment instruments, which can measure the realization of training results. 5) developing training strategies in implementing pre-training activities. use of teaching materials as learning media used in delivering information to training participants. 6) designing and implementing formative and summative evaluations. 7) revising the training program based on the results obtained from the evaluation that has been carried out.

According to Heinrich (2005) training design consists of six stages, namely, 1) analyze learners, and the training media used is adjusted to the characteristics of the training participants. 2) state objectives, is a stage in determining training objectives. 3) select methods, media, and material, determine the appropriate method for training activities, then choose media that is appropriate to training needs and finally choose or design the media that has been determined. 4) utilize media and materials. 5) require learner participation, and involvement of training participants in training activities. 6) evaluate and revise, evaluation of the training media used to test the effectiveness and impact of the training. Training design is an important part of training.

According to Snell and Bohlander (2013), training design must be viewed from the needs of an organization. Several factors need to be considered, such as; (1) training instructional objectives; (2) readiness and motivation of training participants; (3) learner principles, and (4) instructor characteristics. Training design influences training outcomes for individual participants, groups, and organizations (Swart, et al., 2005). Training design needs to consider the learning environment as an effort to support participants in obtaining optimal learning outcomes (Noe, 2017). In previous studies, training design has an important role in training transfer. As in the study of Baldwin and Ford (2018) which placed training design as input from

training. The key factors of training design require the integration of learning principles, training materials, and job relevance in the context of training (Davids, et al. 2019). From the various theories above, it can be synthesized that training design is a systematic planning process before the development or implementation of training activities is carried out. The indicators are: 1) suitability to participant needs; 2) clarity of training objectives; 3) instructional component alignment); 4) participant engagement; 5) evaluation and feedback.

2.5. Training Environment

A supportive training environment has a major influence on the success of a training implementation. The training environment can generally be interpreted as all kinds of conditions and places that can support the training process. Here, the training environment refers to two things, namely the physical training environment, referring to the place and supporting objects for training (classrooms and accommodation), and the non-physical environment (classroom atmosphere and lighting). The more conducive the training environment, the more positive the influence on the success of the training, and vice versa.

Hicks, et al., (2007) define the training environment as a place where the process of acquiring knowledge, skills, and other mental capacities takes place when training participants complete learning activities, leading to increased competence. The training environment is a place where participatory processes occur that involve social interaction and joint knowledge construction, which requires an active role from all participants in deciding how they are involved and participate (Billett, 2004). Temessek (2009) states that the design and decoration of the training environment are needed to improve better performance. Likewise, Haynes (2008) found that the training environment has a significant impact on training participant satisfaction. This affects the way individuals work and their physical, mental, and emotional health.

According to Chandrasekar (2011) and Hammed (2009), a pleasant physical training environment can minimize absenteeism and increase the productivity of training participants. Furthermore, Awan and Tahir (2015) found that interaction between training participants and fellow training participants has a positive effect on increasing the competence of these training participants. According to Vallerand, et al., (2007), the training environment contributes positively to the effectiveness of implementing a training. Furthermore, according to Patel, et al., (2015), individuals who learn in a pleasant atmosphere have better results, indicating that the training environment has a positive effect on learning achievement. Burke, et al. (2015) found that a healthy training environment increases learning productivity. Other studies have found that the training environment has a direct and positive effect on learning achievement (Bonneville-Roussy, et al. 2011). To understand the training environment, how the training center provides opportunities for learning and how participants are involved in training activities (Billett, 2001).

From the various theories above, it can be synthesized that the training environment is a condition in the form of physical, social, and psychological conditions in the training area that can influence training participants in participating in training activities. the indicators are: 1) physical comfort; 2) availability of learning environment; 3) instructional support; 4) conducive learning environment; and 5) participant involvement.

2.6. Training Materials

Training materials should always be updated and adjusted to the situation and needs so that the content of the training is truly by the needs and abilities of the participants. The main thing in determining the material to be designed in a training program is to analyze whether the material to be provided is something that is essential. If the theme of the material has been determined, then the next stage is to choose important topics to be studied in the training, how to teach it and what things need to be explained further so that participants can more easily understand the material.

Generally, training materials consist of knowledge, skills and attitudes that will be learned by training participants to achieve the predetermined competency standards. In detail, the types of learning materials consist of knowledge (facts, concepts, principles, procedures), skills, attitudes, and values that must be learned by training participants to achieve the predetermined competency standards (Shih, W.C., Tseng, S.S., & Yang, CT, 2008). The use of materials by trainers and training participants is an effort to facilitate the learning and training process to increase knowledge and experience. Training materials present a complete picture of the competencies that will be mastered by training participants in learning. Trainers support individual and adaptive learning, trainers are encouraged to develop a variety of training materials according to different areas of expertise. The benefit of preparing training materials is that trainers can develop training materials that are appropriate to the needs in preparing learning devices and implementing learning.

According to Tomlinson (2018), it is necessary to prepare good-quality learning materials to facilitate training. The form of training materials can be in the form of guides, textbooks, and various other forms of teaching materials that can be used to improve the knowledge and skills of training participants. Furthermore, Cunningsworth (2015) stated that no training design has a greater influence on the learning process than textbooks. In organizing the contents of textbooks, Dubin and Olstain (2012) stated that it is necessary to consider the level of difficulty and sequence of the series. In addition, repetition also needs to be considered, especially in difficult material.

The content of the training material should be information needed by training participants and be contemporary with an innovative presentation so that the training material has different characteristics from other training materials. The effect of uniqueness on training materials is in accordance with the opinion of Oberauer, et al. (2018), visually signaling an element to make it more prominent will help make it more memorable. This strategy allows trainees to focus only on the main discussion material being studied rather than diverting memory resources to process irrelevant information.

Learning materials are a collection of knowledge, skills, and attitudes that must be mastered by training participants to meet competency standards. According to the National Center for Vocational Education Research Ltd (2021), there are three definitions of learning materials, namely: 1) information, tools, and texts needed by trainers in planning and implementing training results; 2) various forms of teaching materials used by trainers in training activities; 3) composition of learning material content that is systematically and completely arranged from the competencies that will be learned by participants in the training process.

According to Brubacher (2008), educational materials consist of the true, the good, and the beautiful. The truth is a discussion of the nature of knowledge. The good and the beautiful are discussions of ethics and aesthetics. Thus, educational materials according to Brubacher (2008)

are knowledge, ethics, and aesthetics. In line with this, Langgulung (2017) stated that in general, three things are the material or content of education, namely knowledge, skills, and values. From the various theories above, it can be synthesized that training material is all materials that are arranged systematically, which display a complete figure of the competencies that will be mastered by training participants and used in the learning process with the aim of planning and reviewing the implementation of learning. The indicators are: 1) content suitability; 2) clear and structured; 3) visual and interactive quality; 4) up-to-date and accurate; and 5) learning support capacity.

2.7. Achievement Motivation

Achievement motivation is a need that drives individuals to make an effort to achieve a goal, namely to produce better performance. Achievement motivation in a person is based on the tendency to achieve success and the tendency to avoid failure. To achieve better performance, a person will try to organize the work environment and overcome various obstacles to complete the task well. Furthermore, trying to be better than the achievements that were previously achieved and surpassing the achievements of others.

According to Salami (2008), achievement motivation is the drive to work to achieve a high standard (standard of excellence) and achieve success in a competitive situation. The indicators related to achievement motivation are: 1) The desire to complete work based on personal abilities; 2) Setting goals with a moderate level of difficulty. 3) Calculating the risks in acting; 3) Strong desire to get feedback on performance.

Siburian (2003) stated that achievement motivation (need for achievement) is the desire to exceed a set standard and to strive to achieve success. The indicators are: 1) Dare to take risks; 2) Desire to get feedback on performance; 3) Seek satisfaction by achieving; 4) Take responsibility for work. In this life, we will always need motivation to do various things, especially when we lose our enthusiasm which of course will greatly affect our performance at work. Where motivation is a stimulus or stimulation for everyone to work or make efforts to achieve their goals. According to (Gibson, James, 2012) motivation is a concept that describes the force that works on a person to start and direct behavior. The concept is used to explain differences in the intensity of behavior, and also to indicate the direction of behavior. Two motivational factors, namely: 1) a set of extrinsic conditions, the context of work. Including salary, status, and working conditions; and 2) a set of intrinsic conditions, workload. These conditions include feelings, increased achievement, responsibility, and recognition. Meanwhile, according to (Devadass, 2011) work motivation is a phenomenon related to people in a work context, which is described as a set of internal and external forces that initiate work-related behavior, and determine the form, direction, intensity, and duration. With its indicators: 1) environmental forces (eg, organizational reward systems, the nature of the work being done); and 2) forces inherent in the person (eg, individual needs and motives).

According to Karaman and Smith (2019) achievement motivation is a personality disposition that requires a person to meet their internal standards of success. The indicators are a) Having a strong drive from within to achieve work performance, b) Directing actions taken towards achieving achievement, c) Receiving feedback, d) Having a strong desire to excel in competition, e) Having standards of work success.

From the explanation of the theories above, it can be synthesized (concept definition) that achievement motivation is a strong desire from within an individual that influences behavior to develop themselves and achieve optimal potential in various aspects of life. Indicators of achievement motivation are; 1) drive to excel; 2) results orientation; 3) response to feedback; and 4) challenging goals.

3. Research Methods

The research was conducted on respondents of Productive Teachers of Business and Tourism Vocational High Schools who had participated in the Upskilling and Reskilling training organized by BBPPMPV Business and Tourism in 2022. Respondents were teachers from 9 fields of expertise (Accounting, OTKP, BDP, Peksos, Hotel Accommodation, UPW, Culinary Arts, Fashion Design and Beauty Design).

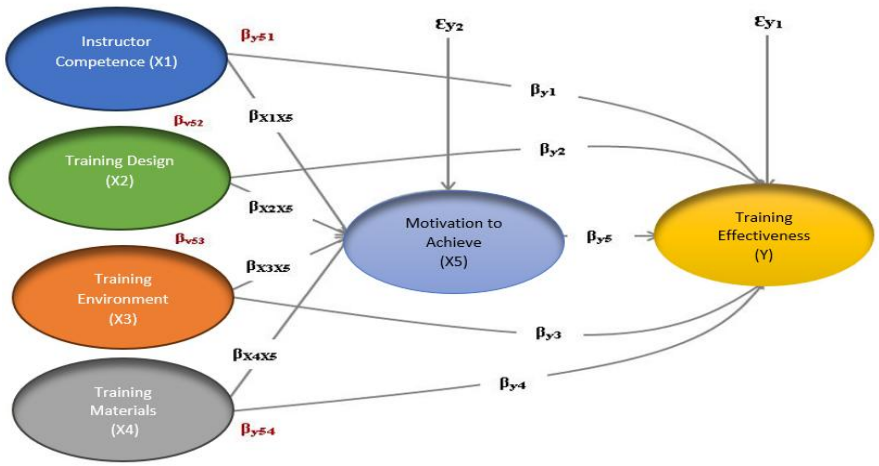

Figure 1. Research Constellation

Population is a generalization area consisting of: objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, 2015). The population of this study was Business and Tourism Vocational High School Teachers who participated in Upskilling and Reskilling Training at BBPPMPV Business and Tourism, totaling 685 Vocational High School Teachers. Determination of the number of research samples in this quantitative stage used a random sampling technique based on the Taro Yamane Formula. The meaning of a sample is a portion of the number and characteristics that represent and are owned by the population. In this study, the error rate and confidence level used were 5%.

Based on the sample determination calculation technique, the number of samples was determined to be 253 respondents. Then the determination of the number of samples was carried out in each study program that was the sample area by determining the proportion according to the number of lecturers in the study program being studied. The collection of research data was carried out using the technique of giving questionnaires to respondents. A questionnaire is a research instrument that asks respondents to fill in questions or statements given by researchers related to the thoughts, feelings, attitudes, beliefs, values, perceptions, experiences, personalities, and behaviors of participants or respondents according to the variables being studied. The data analysis technique used in this quantitative research is using descriptive statistics and Sitorem analysis.

4. Result

Description of research data obtained from each variable of training effectiveness (Y), instructor competence (X1), training design (X2), training environment (X3), training materials (X4), and achievement motivation (X5), obtained from the answers of the research sample, then processed with descriptive statistical calculations. The data used as the basis for describing the results of this study are the scores of instrument items that refer to four research variables, namely training effectiveness (Y) as an endogenous variable, instructor competence (X1), training design (X2), training environment (X3), training materials (X4) and achievement motivation (X5) as intervening variables.

4.1. Training Effectiveness

The training effectiveness variable (Y) based on the research results, the scores obtained from the respondents' answers are presented in the following data description:

Table 1. Statistical Description of Training Effectiveness Variables (Y)

No	Type Description	Value
1.	Mean	147.2490119
2.	Standard Error	0.866879039
3.	Median	133.5
4.	Mode	142
5.	Standard Deviation	13.78855522
6.	Sample Variance	190.124255
7.	Kurtosis	1.062073778
8.	Slope of the Curve	-0.370638315
9.	Range	93
10.	Minimum Score	87
11.	Maximum Score	180

Based on Table 1, it is known that the respondent's score statement in answering the statement items obtained the lowest score of 87 and the highest score of 180. Meanwhile, from the calculation results, the average empirical score (mean) was obtained at 147.25. Furthermore, the most frequently appearing score (mode) was 142. In addition, the sample variance (S) was obtained at 190.12 and the standard deviation (standard deviation) was 13.79. Based on the calculation results with the number of interval classes of 7 with a class interval length of 13 (rounded). The frequency distribution of training effectiveness variable data (Y) can be seen in the following table:

Table 2. Frequency Distribution of Principal Supervision Effectiveness (Y)

No	Interval Class	F	F Relatively	F Cum <	F Cum >
		Absolute	%		
1	87-100	1	0.40	1	253
2	101-114	3	1.19	4	252
3	115-128	15	5.93	19	249
4	129-142	78	30.83	97	234
5	143-156	94	37.15	191	156
6	157-170	46	18.18	237	62
7	171-184	16	6.32	253	16
Total		**253**	**100**		

Based on Table 2, the frequency of training effectiveness data (Y) can be seen as the empirical score of the research results was obtained with the lowest score of 87 and the highest score of 180. The training effectiveness variable instrument (Y) consists of 37 valid questions so that the lowest theoretical score was obtained (37 x 1) = 37 and the highest (37 x 5) = 185 and the theoretical median was obtained (37 + 185: 2) = 111. The empirical score of the research results obtained was the lowest 87 and the highest 185. Based on Table 2, the highest frequency of score distribution is in the fifth interval class (143 - 156), namely 94 respondents (37.15%) of the 253 existing respondents. When comparing the empirical median score (87 + 185: 2) = 136 with the theoretical median score (37 + 185: 2) = 111, this shows that the empirical median score is greater than the theoretical median score, this shows that the effectiveness of training (Y) is relatively high, namely 136 > 111. The average score of the indicator along with the details of the indicators are in the following table:

Table 3. Average Score of Training Effectiveness Variable Indicators

No	Indicator	Average Score
1.	Reactions	3.88
2.	Learning	3.92
3.	Behaviors	4.12
4.	Results	4.00
Average Indicator Score		**3.98**

4.2. Instructor Competence

The instructor competency variable (X1) based on the research results, the scores obtained from the respondents' answers are presented in the following data description:

Table 4. Statistical Description of The Instructor Competency Variable (X1)

No	Type Description	Value
1.	Mean	150.1225296
2.	Standard Error	1.055172293
3.	Median	140.5
4.	Mode	166
5.	Standard Deviation	16.78354277
6.	Sample Variance	281.6873079
7.	Kurtosis	0.39057208
8.	Slope of the Curve	-0.592224618
9.	Range	81
10.	Minimum Score	100
11.	Maximum Score	181

Based on Table 4, it is known that the respondent's score statement in answering the statement items obtained the lowest score of 100 and the highest score of 181. Meanwhile, from the calculation results, the average empirical score (mean) was obtained at 150.12. Furthermore, the most frequently appearing score (mode) was 166. In addition, the sample variance (S) was obtained at 281.69 and the standard deviation (standard deviation) was 16.78. Based on the calculation results with the number of interval classes of 7 with a class interval length of 12

(rounded). The frequency distribution of instructor competency variable data (X1) can be seen in the following table:

Table 5. Frequency Distribution of Instructor Competency (X1)

No	Interval Class	F Absolute	F Relatively %	F Cum <	F Cum >
1	100-111	9	3.56	9	253
2	112-123	10	3.95	19	244
3	124-135	22	8.70	41	234
4	136-147	66	26.09	107	212
5	148-159	70	27.67	177	146
6	160-171	51	20.16	228	76
7	172-183	25	9.88	253	25
Total		**253**	**100**		

Based on Table 5, the frequency of instructor competency data (X1) can be seen as the empirical score of the research results was obtained with the lowest score of 100 and the highest score of 181. The instructor competency variable instrument (X1) consists of 37 valid questions so that the lowest theoretical score was obtained (37 x 1) = 37 and the highest (37 x 5) = 185 and the theoretical median was obtained (37 + 185: 2) = 111. The empirical score of the research results obtained was the lowest at 100 and the highest at 17, the highest frequency of score distribution is in the fifth interval class (148-159), namely 70 respondents (27.67%) of the 253 respondents. When comparing the empirical median score (100 + 171: 2) = 135.5 with the theoretical median score (37 + 185: 2) = 111, this shows that the empirical median score is greater than the theoretical median score, this shows that the instructor's competence (X1) is relatively low, namely 135.5 > 111. The average indicator score along with the details of the indicators are in the following table:

Table 6. Average Score of Instructor Competency Variable Indicators

No	Indicator	Average Score
1.	Mastery of Training Material	4.06
2.	Interpersonal Skills	3.92
3.	Instructional Skills	4.06
4.	Professionalism	4.13
5.	Training Management	4.14
Average Indicator Score		**4.06**

4.3. Training Design (X2)

Training design variables (X2) based on research results, the scores obtained from respondents' answers in the data description are as follows:

Table 7. Statistical Description of Training Design Variables (X2)

No	Type Description	Value
1.	Mean	152.6798419
2.	Standard Error	0.968033743
3.	Median	145
4.	Mode	151
5.	Standard Deviation	15.39751928

No	Type Description	Value
6.	Sample Variance	237.0836
7.	Kurtosis	0.265146582
8.	Slope of the Curve	-0.054324106
9.	Range	84
10.	Minimum Score	103
11.	Maximum Score	187

Based on Table 7, it is known that the respondent's score statement in answering the statement items obtained the lowest score of 103 and the highest score of 187. Meanwhile, from the calculation results, the average empirical score (mean) was obtained at 152.68. Furthermore, the most frequently appearing score (mode) was 151. In addition, the sample variance (S) was obtained at 237.08 and the standard deviation (standard deviation) was 15.39. Based on the calculation results with the number of interval classes of 7 with a class interval length of 9 (rounded). The frequency distribution of training design variable data (X2) can be seen in the following table:

Table 8. Frequency Distribution of Training Design (X2)

No	Interval Class	F	F Relatively	F Cum <	F Cum >
		Absolute	%		
1	103-115	5	1.98	5	253
2	116-128	12	4.74	17	248
3	129-141	38	15.02	55	236
4	142-154	88	34.78	143	198
5	155-167	67	26.48	210	110
6	168-180	29	11.46	239	43
7	181-193	14	5.53	253	14
Total		**253**	**100**		

Based on Table 8, the frequency of training design data (X2) can be seen that the empirical score of the research results was obtained with the lowest score of 103 and the highest score of 187. The training design variable instrument (X2) consists of 38 valid questions so that the lowest theoretical score was obtained (38 x 1) = 38 and the highest (38 x 5) = 190 and the theoretical median was obtained 114 = (38 + 190: 2). The empirical score of the research results obtained was the lowest 103 and the highest 187. Based on Table 8, the highest frequency of score distribution is in the fourth interval class (142-154), which is 88 respondents (34.78%) of the 253 respondents. When comparing the empirical median score (103 + 187: 2) = 145 with the theoretical median score (38 + 190: 2) = 114, this shows that the empirical median score is greater than the theoretical median score, this shows that the training design (X2) is relatively low, namely 145 > 114. The average score of the indicator along with the details of the indicators in the following table:

Table 9. Average Score of Training Design Variable Indicators

No	Indicator	Average Score
1.	Suitability to Participant Needs	4.13

No	Indicator	Average Score
2.	Clarity of Training Objectives	3.99
3.	Instructional Component Alignment	3.83
4.	Participant Engagement	4.02
5.	Evaluation and Feedback	4.10
Average Indicator Score		**4.01**

4.5. Training Environment (X3).

The training environment variable (X3) based on the research results, the scores obtained from the respondents' answers are presented in the following data description:

Table 10. Statistical Description of The Training Environment Variable (X3)

No	Type Description	Value
1.	Mean	150.1225296
2.	Standard Error	0.861669576
3.	Median	144
4.	Mode	144
5.	Standard Deviation	13.70569364
6.	Sample Variance	187.846038
7.	Kurtosis	-0.331737057
8.	Slope of the Curve	0.152959388
9.	Range	72
10.	Minimum Score	108
11.	Maximum Score	180

Based on Table 10, it is known that the respondent's score statement in answering the statement items obtained the lowest score of 108 and the highest score of 180. Meanwhile, from the calculation results, the average empirical score (mean) was obtained at 150.12. Furthermore, the most frequently appearing score (mode) was 144. In addition, the sample variance (S) was obtained at 187.85 and the standard deviation (standard deviation) was 13.71. Based on the calculation results with the number of interval classes of 7 with a class interval length of 11 (rounded). The frequency distribution of training environment variable data (X3) can be seen in the following table:

Table 11. Frequency Distribution of Training Environment (X3)

No	Interval Class	F	F Relatively	F Cum <	F Cum >
		Absolute	%		
1	108-118	4	1.58	4	253
2	119-129	5	1.98	9	249
3	130-140	56	22.13	65	244
4	141-151	89	35.18	154	188
5	152-162	45	17.79	199	99
6	163-173	45	17.79	244	54
7	174-184	9	3.56	253	9
Total		**253**	**100**		

Based on Table 11, the frequency of training environment data (X3) can be seen that the empirical score of the research results was obtained with the lowest score of 108 and the highest score of 180. The training environment variable instrument (X3) consists of 36 valid questions so that the lowest theoretical score is obtained (36 x 1) = 36 and the highest (36 x 5) = 180 and the theoretical median is obtained (32 + 180: 2) = 108. The empirical score of the research results obtained was the lowest 108 and the highest 180. Based on Table 11, the highest frequency of score distribution is in the fourth interval class (141-151), which is 89 respondents (35.18%) of the 253 respondents. When comparing the empirical median score (108 + 180: 2) = 144 with the theoretical median score (32 + 180: 2) = 108. This shows that the empirical median score is greater than the theoretical median score, this shows that the training environment (X3) is relatively low, namely 144 > 108. The average score of the indicator along with the details of the indicators in the following table:

Table 12. Average Score of Training Environment Variable Indicators

No	Indicator	Average Score
1.	Physical Comfort	4,37
2.	Learning Resource Availability	4,13
3.	Instructional Support	3,98
4.	Conducive Learning Environment	4,14
5.	Participant Engagement	3,97
Average Indicator Score		**4.12**

4.6. Training Material (X4)

The training material variable (X4) based on the research results, the scores obtained from the respondents' answers are presented in the following data description:

Table 13. Statistical Description of Training Material Variable (X4)

No	Type Description	Value
1.	Mean	142.8221344
2.	Standard Error	0.863395244
3.	Median	132
4.	Mode	131
5.	Standard Deviation	13.73314205
6.	Sample Variance	188.5991907
7.	Kurtosis	1.814127244
8.	Slope of the Curve	-0.300572507
9.	Range	90
10.	Minimum Score	87
11.	Maximum Score	177

Based on Table 13, it is known that the respondent's score statement in answering the statement item obtained the lowest score of 87 and the highest score of 177. Meanwhile, from the calculation results, the average empirical score (mean) was obtained as 142.82. Furthermore, the most frequently appearing score (mode) was 131. In addition, the sample variance (S) was obtained as 188.59 and the standard deviation (standard deviation) was 13.73. Based on the calculation results with the number of interval classes of 7 with a class interval length of 13 (rounded). The frequency distribution of training material variable data (X4) can be seen in the following table:

Table 14. Frequency Distribution of Training Material (X4)

No	Interval Class	F	F Relatively	F Cum <	F Cum >
		Absolute	%		
1	87-99	4	1.58	4	253
2	100-112	2	0.79	6	249
3	113-125	10	3.95	16	247
4	126-138	81	32.02	97	237
5	139-151	95	37.55	192	156
6	152-164	46	18.18	238	61
7	165-177	15	5.93	253	15
Total		**253**	**100**		

Based on Table 14, the frequency of training material data (X4) can be seen as the empirical score of the research results was obtained with the lowest score of 87 and the highest score of 177. The training material variable instrument (X4) consists of 37 valid questions so that the lowest theoretical score was obtained (37 x 1) = 37 and the highest (37 x 5) = 185 and the theoretical median was obtained (37 + 185: 2) = 111. The empirical score of the research results obtained was the lowest at 87 and the highest at 177. Based on Table 14, the highest frequency of score distribution is in the fifth interval class (139-151), namely 95 respondents (37.55%) of the 253 respondents. When comparing the empirical median score (87 + 177: 2) = 132 with the theoretical median score (37 + 185: 2) = 111, this shows that the empirical median score is greater than the theoretical median score, this shows that the training material (X4) is relatively high, namely 132 > 111. The average indicator score along with the details of the indicators are in the following table:

Table 15. Average Score of Training Material Variable Indicators (X4)

No	Indicator	Average Score
1.	Content Suitability	4.15
2.	Clarity and Structure	4.02
3.	Visual and Interactive Quality	3.47
4.	Currency and Accuracy	3.87
5.	Learning Support	3.82
Average Indicator Score		**3.87**

4.7. Achievement Motivation (X5)

The achievement motivation variable (X5) based on the research results, the scores obtained from the respondents' answers are presented in the following data description:

Table 16. Statistical Description of the Achievement Motivation Variable (X5)

No	Type Description	Value
1.	Mean	140.4782609
2.	Standard Error	0.666609381
3.	Median	128.5
4.	Mode	141
5.	Standard Deviation	10.60307129
6.	Sample Variance	112.4251208
7.	Kurtosis	2.383625828
8.	Slope of the Curve	-0.302721257

No	Type Description	Value
9.	Range	85
10.	Minimum Score	86
11.	Maximum Score	171

Based on Table 16, it is known that the respondent's score statement in answering the statement items obtained the lowest score of 86 and the highest score of 171. Meanwhile, from the calculation results, the average empirical score (mean) was obtained at 140.48. Furthermore, the most frequently appearing score (mode) was 128.5. In addition, the sample variance (S) was obtained at 112.43 and the standard deviation (standard deviation) was 10.60. Based on the calculation results with the number of interval classes of 7 with a class interval length of 15 (rounded). The frequency distribution of achievement motivation variable (X5) can be seen in the following table:

Table 17. Frequency Distribution of Achievement Motivation (X5)

No	Interval Class	F	F Relatively	F Cum <	F Cum >
		Absolute	%		
1	86-98	1	0.40	1	253
2	99-111	0	0.00	1	252
3	112-124	13	5.14	14	252
4	125-137	88	34.78	102	239
5	138-150	105	41.50	207	151
6	151-163	41	16.21	248	46
7	164-176	5	1.98	253	5
Total		**253**	**100**		

Based on Table 17, the frequency of achievement motivation data (X5) can be seen as the empirical score of the research results was obtained with the lowest score of 86 and the highest score of 171. The achievement motivation variable instrument (X5) consists of 36 valid questions so that the lowest theoretical score was obtained (36 x 1) = 36 and the highest (36 x 5) = 180 and the theoretical median was obtained (36 + 180: 2) = 103. The empirical score of the research results obtained was the lowest at 86 and the highest at 171. Based on Table 17, the highest frequency of score distribution is in the fifth interval class (138-150), namely 105 respondents (41.50%) of the 253 existing respondents. When comparing the empirical median score (86 + 171 : 2) = 128.5 with the theoretical median score (36 + 180 : 2) = 103, this shows that the empirical median score is greater than the theoretical median score, this shows that achievement motivation (X5) is relatively high, namely 128.5 > 103. The average indicator score along with the details of the indicators are in the following table:

Table 18. Average Score of Achievement Motivation Variable Indicators (X5)

No	Indicator	Average Score
1.	Drive to Excel	4.01
2.	Results Orientation	3.77
3.	Responsive to feedback	3.58
4.	Challenging goals	3.94
Average Indicator Score		**3.83**

The results of the SITOREM analysis are as follows:

Table 19. Determination of SITOREM Analysis Results

INSTRUCTOR COMPETENCY (βy_1 = 0,313) (Rank. I)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Mastery of Training Material	1st	Professionalism (22.30%)	4.13
2	Interpersonal Skills	2nd	Instructional Skills (20.94%)	4.06
3	Instructional Skills	3rd	Training Management (18.93%)	4.14
4	Professionalism	4th	Training Material Mastery (18.93%)	4.06
5	Training Management	5th	Interpersonal Skills (18.90%)	3.92

TRAINING DESIGN (βy_2 = 0,261) (Rank. II)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Suitability to Participant Needs	1st	Suitability to Participant Needs (21.43%)	4.13
2	Clarity of Training Objectives	2nd	Clarity of Training Objectives (21.43%)	3.99
3	Instructional Component Alignment	3rd	Participant Engagement (20.00%)	4.02
4	Participant Engagement	4th	Evaluation and Feedback (19.28%)	4.10
5	Evaluation and Feedback	5th	Instructional Component Alignment (17.85%)	3.83

TRAINING ENVIRONMENT (βy_3 = 0,119) (Rank. V)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Physical Comfort	1st	Physical Comfort (22.08%)	4.37
2	Learning Resource Availability	2nd	Learning Resource Availability (20.70%)	4.13
3	Work Standards	3rd	Conducive Learning Environment (19.99%)	4.14
4	Conducive Learning Environment	4th	Instructional Support (18.61%)	3.98
5	Participant Engagement	5th	Participant Engagement (18.61%)	3.97

TRAINING MATERIALS (βy_4 = 0,137) (Rank. III)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Content Suitability	1st	Content Suitability (22.21%)	4.15
2	Clarity and Structure	2nd	Clarity and Structured (20.16%)	4.02
3	Visual and Interactive Quality	3rd	Learning Support (20.16%)	3.82
4	Currency and Accuracy	4th	Visual and Interactive Quality (19.43%)	3.47
5	Learning Support	5th	Currency and Accuracy (18.03%)	3.87

MOTIVATION TO ACHIEVE (βy_5 = 0,134) (Rank. IV)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Drive to excel	1st	Drive to excel (26.67%)	4.01
2	Results Orientation	2nd	Challenging goals (26.67%)	3.94
3	Responsive to feedback	3rd	Results orientation (23.33%)	3.77
4	Challenging goals	4th	Responsiveness to feedback (23.33%)	3.58

EFFECTIVENESS OF PRINCIPAL SUPERVISION (Y)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value (IV)
1	Reactions	1st	Results (25.86%)	4.00
2	Learning	2nd	Learning (25.86%)	3.92
3	Behaviors	3rd	Reactions (25.00%)	3.88
4	Results	4th	Behaviors (23.28%)	4.12

SITOREM ANALYSIS RESULTS			
Priority Order of Indicators to be Strengthened		Retained indicators	
1st	Interpersonal Skills	1	Professionalism
2nd	Clarity of Training Objectives	2	Instructional Skills
3rd	Instructional Component Alignment	3	Training Management
4th	Learning Support	4	Mastery of Training Materials
5th	Visual and Interactive Quality	5	Suitability to Participant Needs
6th	Currency and Accuracy	6	Participant Engagement
7th	Challenging Objectives	7	Evaluation and Feedback
8th	Results Orientation	8	Content Suitability
9th	Response to feedback	9	Clarity and Structure
10th	Instructional Support	10	Drive to Excel
11th	Participant Engagement	11	Physical Comfort
12th	Learning	12	Availability of Learning Resources
13th	Reactions	13	Conducive Learning Environment
		14	Results
		15	Behaviors

5. Conclusion

Based on the results of the research conducted, it was concluded that the strategy to increase the effectiveness of Upskilling and Reskilling training organized by BBPPMPV Business and Tourism can be done through strengthening Instructor Competence by optimizing the interpersonal skills of instructors who teach in the training; Designing a Training Design that contains clear information about the objectives of the training and the alignment of all learning elements; Involving participants and providing instructional support in creating a comfortable training environment to support the implementation of the training; The training materials provided contain information that is relevant to the needs of the participants and discusses the latest developments in the field of expertise being studied; Providing challenging and novel learning objectives, explaining the orientation of the results obtained after participating in the training and responding to feedback provided by participants in order to increase the motivation of training participants.

6. Implications

Based on the conclusions above, the implications of this study are as follows:

a. Optimization of instructor competency indicators that need to be improved to increase the effectiveness of the training, namely: 1) Interpersonal Skills. Maintaining or developing indicators 1) Professionalism; 2) Training Management and 3) Mastery of Training Materials.

Methods that can be done include: a) providing opportunities for instructors to participate in activities to improve and develop interpersonal skills; b) providing structured and constructive evaluation and feedback for facilitators on assessments carried out by training participants and colleagues; 3) Providing mentoring and coaching by other more experienced instructors so that instructors gain guidance and direct experience.

b. Optimizing training designs that need to be improved to increase training effectiveness, namely: 1) Clarity of training objectives and 2) Alignment of instructional components. Maintaining or developing indicators: 1) Suitability of training design to participant needs; 2) Participant involvement in designing training designs; and 3) Evaluation and feedback. Methods that can be done include: a) making a needs analysis (TNA); b) educational objectives must be SMART (specific, measurable, achievable, relevant, and time); 3) varied training methods; 4) interesting training materials that are relevant to participant needs; 5) continuous evaluation of training implementation and instructors. 3. Optimization of the training environment that needs to be improved to increase training effectiveness, namely: 1) Instructional support and 2) Participant involvement. Maintain or develop indicators: 1) Physical comfort in the training environment; 2) Availability of learning resources in the training environment; and 3) Conducive learning environment. The methods used include: a) providing facilities and technological tools to support the learning process in training, such as comfortable classrooms, wifi, libraries, laptops, and LCDs for presentations; b) creating a learning environment that supports participants to discuss and collaborate more often to share knowledge and experiences. 4. Optimization of training materials that need to be improved to increase training effectiveness, namely: 1) Learning support; 2) Visual and interactive quality; and 3) Up-to-date and accurate. Maintain or develop indicators: 1) The content of the training materials must be following the material to be studied; 2) Training materials must be clear and structured. The methods used include: a) the training materials that are prepared should be by the latest scientific developments and refer to reliable sources; b) The material is arranged clearly and structured, using easy-to-understand language and there is an explanation of important points so that participants can more easily remember and understand the material being studied. 5. Optimization of achievement motivation that needs to be improved to increase training effectiveness, namely: a) Challenging goals; b) Results orientation; and c) Response to feedback. Maintain or develop the Drive to Excel indicator. Methods that can be done include: awards for participant achievements can be in the form of certificates or STTPL, industry-recognized competency pins that can be used to add performance assessment points and certification, and provide conducive feedback containing specific suggestions and recommendations as a reference for each participant's work unit for future competency improvement.

7. Suggestion

Based on the explanation above, several strategies can be obtained to improve the effectiveness of Upskilling and Reskilling training organized by BBPPMPV Business and Tourism. The strategy to improve the optimization of training effectiveness is to strengthen the variables of instructor competence, training design, training environment, training materials and achievement motivation. The way to improve training effectiveness is to make improvements to indicators that are still low and maintain or develop indicators that are already good.

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