

The Influence of Learning Styles and Kolb Preferences on Training Effectiveness at the Learning and Behavior Level (Kirkpatrick Model): a Study at PT. Revass Utama Medika

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ABSTRACT

This study aims to analyze the influence of Kolb's learning style on the effectiveness of Customer Management training for employees of the Sales Division of PT. Revass Utama Medika, as measured through two levels of Kirkpatrick evaluation, namely Level 2 (learning) and Level 3 (behavior), and considering the role of learning preferences as a moderating variable. This study used a total population sampling method on 58 respondents, all of whom were training participants. Data collection was conducted one week after the online training, using a Likert-scale questionnaire instrument. Data analysis was carried out using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. The results showed that Kolb's learning style had a positive and significant effect on material understanding (Level 2) with a p value <0.05, but did not have a significant effect on changes in work behavior (Level 3). Conversely, learning preferences had a positive and significant effect on changes in work behavior (p <0.05). The moderating effect of learning preferences on the relationship between learning styles and work behavior was not significant (p > 0.05). These findings indicate that matching training methods to individual preferences contributes to the application of training outcomes in the workplace, while learning styles play a greater role in shaping understanding of the material. This study provides theoretical contributions by integrating Kolb's learning style model and Kirkpatrick's training evaluation into a single analytical framework, as well as practical contributions to human resource management in designing training that adapts to employee learning styles.

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INTRODUCTION

The current scale of economic and social change, the process of globalization, the rapid transition to a knowledge society, and demographic pressures resulting from diverse generations and ages present challenges that require new approaches to the education of learning organizations and the development of their human resources. Employee knowledge and skills must be continuously developed to keep pace with change, the flow of information,

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and new technologies. A changing environment means that all employees must adopt a learning philosophy. The goal of learning is for employees to master the information, skills, and methods presented in employee training programs and apply them in their daily work. Implementing learning in a company requires company commitment, systematic strategies, and methods to effectively convey messages in the form of knowledge and experience to employees. As stated by Pelder et al. (1989), a learning organization is one that facilitates the learning of all its members and fosters their own transformation. Organizations, or in this case, companies, play a crucial role in transforming their employees.

In implementing the learning concept, an appropriate training design or plan is required in accordance with the goals and objectives of the organization or company. The training design or plan is able to synergize with the character and nature of the learning organization. Pedler et al. (1989) stated that the establishment of this learning organization as a practice of self-development approach to individual member learning combined with organizational transformation goals, some implications are quite clear. Synergy or alignment between training design or training plan and learning organization is not automatically able to create effective training that is right on target but it needs to be supported by an appropriate training material delivery strategy so that the material is easily accepted and absorbed by employees. In delivering training materials or modules, knowledge is needed in recognizing the character and characteristics of employees so that the appropriate learning style can be identified in a training. An understanding of this learning style or learning style is what PT. Revass Utama Medika, a company engaged in the field of Medical Device Distributor, is trying to adopt in this case to determine the training design and feedback from the training that will be implemented.

The implementation of Kolb's learning style preferences in a company or organization, implemented to increase knowledge and skills gained through the training process, needs to be measured for effectiveness through training evaluation. The most popular training evaluation model is the Kirkpatrick model, which is widely used to measure the effectiveness of training programs using four sequential levels of evaluation. The first level is Response, which assesses the extent to which participants respond positively to training; the second level is Learning, which assesses improvements in knowledge, skills, and attitudes; and the third level is Behavior, which measures changes in risk. Organizations can assess learning and satisfaction through this model. It also ensures that training has value and helps achieve larger business goals (Kirkpatrick & Kirkpatrick, 2009). Kolb and Kirkpatrick's work is crucial in learning and teaching, but it cannot be grouped into a long and systematic quantitative model. Kolb focuses on individual learning through experience, while Kirkpatrick emphasizes the effectiveness of teaching in an organizational context. However, there is a lack of an integrative quantitative model that directly relates individual learning preferences to learning outcomes at all Kirkpatrick levels, such as learning, performance changes, and organizational success, making it an interesting topic for further research.

Research on training in the healthcare industry and distribution sectors has primarily relied on descriptive and evaluative approaches, such as employee performance evaluations

or traditional regression models. However, using predictive models to identify key factors influencing training performance, such as skill enhancement, job changes, and organizational performance, remains challenging. Complex operational dynamics, stringent regulations, and the need for human resource development make predictive modeling crucial for optimizing data-driven training design.

Literature Review

Definition of Learning Organization

Pedler et al. (1989) stated that the definition of a learning organization as a practice of self-development approach to individual member learning combined with the goal of organizational transformation has several clear implications. From the definition of a learning organization as a practice of self-development approach to individual member learning combined with the goal of organizational transformation, several clear implications. The nature of a learning company or organization is defined as an organization that facilitates the learning of all its members and continuously transforms itself and is explained by Pedler, Burgoyne and Boydell (1989).

Learning Styles

Learning Theory Based on Experience and Individual Learning Styles

The theory of learning based on experience and individual learning styles was developed by Kolb, better known as the concept of Experiential Learning Theory (ELT), where in this theoretical concept Kolb refers to the works of leading twentieth-century experts who gave experience a central role in their theories of learning and human development - especially John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers, and others to develop a holistic model of the learning process based on experience and a multilinear model of adult development.

Experiential Learning Cycle

The Experiential Learning Theory (ELT) model posits a four-mode learning cycle or process that typically begins with Concrete Experience (CE), moves to Reflective Observation (RO), then to Abstract Conceptualization (AC), and finally to Active Experimentation (AE), with the most effective and complete learning occurring when learning activities encompass these modes. Learning emerges from the creative resolution of the tensions between these four modes. This process is depicted in Figure 5 as an ideal learning cycle in which the learner touches all the fundamentals of Experiencing (CE), Reflection (RO), Thinking (AC), and Action (AE).

Training

Training is the application of organized and methodical instruction to support learning. The term "learner-driven training" summarizes this methodology. It involves the application of formal procedures to impart knowledge and assist individuals in acquiring the skills necessary to perform their jobs satisfactorily. It is cited as one of many actions organizations can take to encourage learning (Armstrong, 2006). As Reynolds (2004) points out, training can also be used to accelerate learning in a complementary manner. However, training should only be used in situations that require a more focused, expert-led approach, not as a

comprehensive and complete human resource development solution. Furthermore, he notes that traditional training methodologies emphasize subject-specific knowledge, rather than attempting to build core learning capabilities.

Training Effectiveness

Effective training involves a systematic approach focused on skills analysis. Training objectives should be clearly defined, with a focus on 'criterion behaviors' and 'end behaviors'. These behaviors form the basis for evaluation, which is crucial to the success of the training. Defining these behaviors ensures that participants can achieve the desired outcomes. Training should be tailored to the participants' work context, with a focus on their work as a key feature. Training techniques should be appropriate to the training objectives and participants' characteristics, including their jobs, learning needs, prior experience, knowledge level, and motivation. A combination of techniques is recommended. Management, supervisory, and interpersonal skills training should facilitate active learning through discussions, case studies, and simulations. Lectures should be a small part of the training (Armstrong, 2006).

RESEARCH METHODS

This research approach uses a quantitative type with the main objectives of control, accuracy, and fairness. Methodologically, this strategy is based on a deductive design intended to refute or strengthen arguments in support of certain theories and hypotheses (Leavy, 2017). According to Sugiyo (2017), the quantitative method is a research method based on positivistic (concrete data), research data in the form of numbers that will be measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion.

The population for this study was employees of the Sales Division of PT. Revass Utama Medika, a Medical Device Distributor company, who participated in the training. Data collection for this study was conducted one week after the Customer Management training was held on June 12, 2025. This training was conducted online and attended by all employees of the Sales Division of PT. Revass Utama Medika spread across various regions in Indonesia.

This study used the total population sampling method, a type of purposive sampling technique that involves examining the entire population that shares a specific set of characteristics (Laerd, 2021). These characteristics in this study include: employees working in the Sales Division of PT. Revass Utama Medika, having attended Customer Management training, and being willing to be research respondents. With this method, the entire population that met these criteria was used as the research sample, which in this case amounted to 58 people. The data analysis method used SEM PLS analysis, which was used to test the hypotheses in this study. SEM is a multivariate analysis technique that allows researchers to examine complex relationships between variables (both unidirectional and reciprocal relationships) to obtain a comprehensive picture of the overall model (Ghozali, 2013).

RESULTS AND DISCUSSION

Convergent Validity & Construct Reliability Test

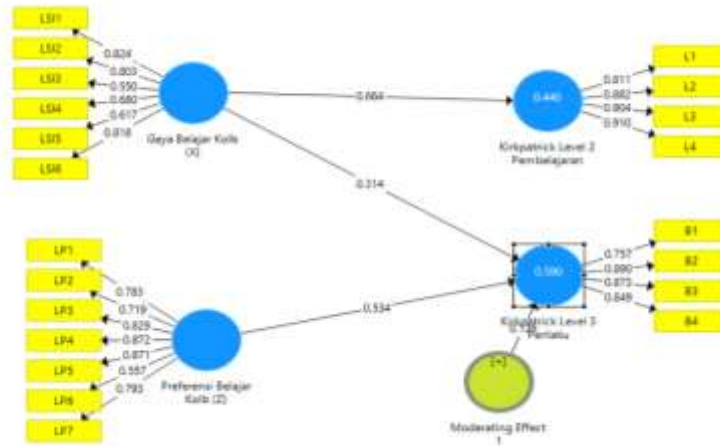


Figure 1. Convergent Validity Test

Table 1. Construct Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Gaya Belajar Ko...	0.821	0.854	0.866	0.523
Kirkpatrick Lev...	0.900	0.910	0.930	0.770
Kirkpatrick Lev...	0.864	0.868	0.908	0.713
Moderating Eff...	1.000	1.000	1.000	1.000
Preferensi Belaj...	0.891	0.915	0.915	0.611

From table 7 it can be explained that:

1. Kolb's Learning Style (X) has valid & reliable construct reliability.
2. Kirkpatrick Level 2 Learning) has good construct reliability, is very reliable and valid. Very Valid
3. Kirkpatrick Level 3 Behavior has construct reliability & reliability
4. Moderating Effect 1 has perfect construct reliability (because it is the result of calculating two variables)
5. Kolb's Learning Preferences (Z) has a valid & reliable construct reliability.
6. Therefore, it can be concluded that all constructs meet the criteria for reliability and convergent validity. The AVE value is above 0.5, and the Composite Reliability value is > 0.7.

Path Significance Test

This test focuses on evaluating the relationships between variables in a structural model using path coefficients, t-statistics, and p-values. The goal is to understand the significant relationships between variables and their statistical significance. The results show a 5% significance level ($p < 0.05$), making this study significant for addressing the problem and

supporting the hypothesis.

Table 2. Path Coefficients

	Original Sampl...	Sample Mean C...	Standard Devia...	T Statistics (JD...	P Values
Gaya Belajar Kolb (X) → Kirkpatrick Level 2 Pembelajaran	0.664	0.679	0.064	10.410	0.000
Gaya Belajar Kolb (X) → Kirkpatrick Level 3 Perilaku	0.314	0.325	0.161	1.954	0.051
Moderating Effect 1 → Kirkpatrick Level 3 Perilaku	0.136	0.125	0.103	1.319	0.188
Preferensi Belajar Kolb (Z) → Kirkpatrick Level 3 Perilaku	0.534	0.540	0.153	3.488	0.001

Based on the output of table 2, it can be explained that:

1. Kolb Learning Style (X) → Kirkpatrick Level 2 Learning: Very significant influence. Kolb learning style positively and strongly influences the level of understanding or learning of participants.
2. Kolb Learning Style (X) → Kirkpatrick Level 3 Behavior: Almost significant. The effect is positive, but the p-value (0.051) is slightly above 0.05, so it is not statistically significant at the 5% level.
3. Moderating Effect → Kirkpatrick Level 3 Behavior: Not significant. This means that the moderating effect of Kolb's Learning Preferences on the relationship between Learning Styles and Behavior is not proven.
4. Kolb Learning Preference (Z) → Kirkpatrick Level 3 Behavior: Significant. Learning preference has a positive and significant influence on behavioral changes after training. From the data in table 2 and the explanation of the output, it can be concluded that:
 1. Kolb's Learning Style (X) has a strong influence on Kirkpatrick level 2 (Learning), but is only nearly significant on Kirkpatrick level 3 (Behavior).
 2. It is proven that Kolb's learning preferences (Z) influence changes in Kirkpatrick's work behavior (Level 3).
 3. Moderation does not matter: Learning preferences have not been shown to moderate the relationship between behavior and learning styles.
 4. Although some variables have not been proven to be statistically significant, the relationships between variables are mostly positive.

Discussion of Results

This study aims to analyze the influence of Kolb's learning style on training effectiveness, as measured through two levels of Kirkpatrick evaluation, namely learning (Level 2) and changes in work behavior (Level 3), by considering the role of learning preferences as a moderator variable. This study was conducted on employees of the Sales Division of PT. Revass Utama Medika who participated in customer management training, with a total population sampling approach to 58 respondents and using the Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis method. The results showed that

Kolb's learning style had a positive and significant effect on increasing the understanding of training participants (Kirkpatrick Level 2) based on a p-value of 0.000 with a significance level of 5% ($p < 0.05$). This indicates that individual learning styles play an important role in shaping the effectiveness of the internalization process of training materials. However, the influence of learning styles on changes in work behavior (Kirkpatrick Level 3) was not statistically significant, although the direction of the relationship remained positive with a p-value (0.051) slightly above 0.05, so it was not statistically significant at the 5% level.

On the other hand, learning preferences have a significant influence on changes in work behavior based on a p-value of 0.001 with a significance level of 5% ($p < 0.05$), which indicates that the suitability between training methods and individual preferences contributes significantly to encouraging the application of training results into daily work practices. Although testing the moderating effect of learning preferences in strengthening the relationship between learning styles and behavior did not show significant results based on a p-value of 0.188 with a significance level of 5% ($p > 0.05$), this finding still provides implications that a training approach that takes into account individual preferences is worth considering in developing more adaptive and effective training programs.

Learning is best facilitated by existing processes to awaken students' beliefs and thoughts about the subject so that they can be explored, tested and examined, integrated with new, more complex ideas. In research, Kolb's Theory supports the effectiveness of training (especially the Kirkpatrick Level 2 Model of learning) because effective learning not only provides new information, but also activates and enhances existing knowledge, resulting in deeper and more relevant understanding. It is a reasonable result if in this study the test of the moderating effect of learning preferences in strengthening the relationship between learning styles and behavior does not show significant results based on a p-value of 0.188 with a significance level of 5% ($p > 0.05$). The results of the study that show that the hypothesis of preferences as moderating variables is not supported by the results of the study which are results that are inconsistent with Kolb and Kirkpatrick's theory in Chapter 2. Several possible contributing factors include:

1. Kirkpatrick's Levels 2 & 3: Although participants learn according to their preferences, behavioral change in the workplace is also influenced by other factors, such as work culture, support from superiors, and the organizational environment. Therefore, even if learning styles and preferences match, it's not enough to drive real behavioral change.
2. Kolb argued that learning preferences (e.g., preference for simulation, discussion, reflection) are flexible and can change depending on context or experience. Learning is an ever-changing process and not always linear. Therefore, even if someone prefers a particular method, they may still adapt to other methods in practice.

CONCLUSION

In this study, there is a correlation between the ability of the proposed PLS-SEM model to predict training effectiveness outcomes. The results of the structural analysis indicate that the PLS-SEM model is proven to be able to predict the relationship between the main variables—

learning styles, learning preferences, and the level of training effectiveness based on the Kirkpatrick model (Levels 2 and 3). The model shows a moderate R² value at Level 2, indicating that there is variation in training outcomes. In addition, the path significance test, also known as the path coefficient, indicates that learning styles significantly influence learning outcomes. However, at Level 3 (Behavior), the relationship between learning styles and changes in participant behavior is not very strong, and the moderating role of learning preferences is not significant. This indicates that the PLS-SEM model is still inadequate in predicting training outcomes comprehensively, especially at the behavioral level. The strong influence of external elements not included in the model, such as organizational support, work environment, and post-training policies, is one potential cause. The model's predictive power may also be affected by the limited sample size.

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