Analysis of Learning Styles on Several Types of Job

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Abstract

This study aims to figure the learning style profiles on several types of job. A total of 97 employees of government agencies, state enterprises, private universities and non-governmental organizations in Yogyakarta participated in this study. The instrument namely The Learning Style Inventory (early version) were used to examine the individual learning styles. The result showed that Assimilation, Divergent, Accommodation and Convergent learning styles appear on the several types of work such as lecturer, teacher, family consultant, finance staff, sales staff, receptionist and administration staff.

Keywords: analysis; learning styles; types of job

1. Introduction

People who work in the organization have their own uniqueness, have different ways to behave, which is often called styles, the patterns of habit or preferred way of behaving [1]. One form of these styles is learning styles, described as the preferred attitudes and behavior of individuals in formal learning [2]. The learning process encourages individuals to know how to deal with everyday situations, how to cultivate concepts and ideas, how to deal with all the problems they face, which shows the function of the individual as a learner.

Learning styles characterize each of the job functions. This is due to special feature on jobs that require specific characteristics of the individual, so that certain types of work colored by the particular characteristics of the job holder.

The purpose of this study was to determine the tendency of individual learning styles in the organization. Results of this study are expected to help the management of the organization on the importance of recognizing and identifying individual learning style tendency of employees to achieve maximum work.

Style is the way chosen someone to use his or her abilities [2]. The definition refers to the definition of the style of thinking, but actually the style can show specific ways in a particular activity. A style is not the level of a person's intelligence or personality trait, but an interaction between intelligence and personality. This term arises when Allport introduced the term lifestyle to identify the type of a person's behavior.

Divides styles into three major groups: a. cognition-oriented style, which is based on individual differences, where individuals show perceptual and intellectual activity that is relatively consistent; b. personality-oriented style, by looking at individual differences that tend to settle at the level of cognitive, values, interests and personality development; c. activities-oriented style, which include the teaching style and learning styles.

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formulate the cognitive-oriented style, namely Theory of mental self-government (MSG) or also called Intellectual force theory, which says that people basically need to adjust or to govern or to manage their activities every day. There are many ways to do that activities, people can use these styles in flexible way to make adjustment to the demands of different styles.

A learning process can take place anywhere, including in the organization. To do good job duties, someone could rely on how he studied in the past, through formal learning or experience. Individuals are required to demonstrate its capabilities for learning (ability to learn), so that the individual can be able to perform the job successfully. Experience is an important factor for a person to learn, and Kolb raised the theory of learning through experience (Experiential Learning Theory) as one of the theories that emphasize the experience as a learning resource. This theory emphasizes the central role of experience in the learning process; differentiate cognitive learning theory and behavioral learning theory [4]. Many managers, corporate leaders, and policy makers succeed in his job as much to learn from experience. With this experience, people are trying to earn returns on their decisions and actions, and variety of problem-solving efforts can also be reached on the basis of experience.

The learning process and problem-solving can be viewed as a single process, which has the active, passive, abstract and concrete characteristics. This combination may explain how people understand the concept, rule or principle that would lead to a behavior in new situations, which are all derived from the experience that has been gained. According [5], it is described as a circle in four phases consisting of (a) concrete experience/CE), followed in (b) reflective observation/RO, followed in (c) abstract concepts and generalizations (abstract conceptualization/AC) and followed in (d) the hypothesis that will be proved in future action (active experimentation/AE) and then re-generate new experiences.

Furthermore, the learning process is directed by the needs and goals of the individual, so that the type or style of learning is also highly individual, and each person tends to have a certain pressure on each phase of the learning process. Someone might be able through a phase of concrete experience, but failed to draw lessons from that experience. This means that people have more power in concrete experience phase. People with various professional backgrounds also have their own character in the learning phase, and individuals tend to develop their own style of learning. Thus, it can be said that learning style is a method used to understand the concepts, rules or principles that will lead to a behavior in new situations (Kolb et al, 1984), and also to be used to concentrate, process and absorb new information, further engage in challenging tasks [5].

a. concrete experience phase
This phase focused on the involvement and experience relating to the human situation, the feeling as opposed to the mind, attention to the uniqueness and complexity of reality as opposed to theory and generalizations, emphasis on intuition, artistic approach to the solution as opposed to systematic and scientific approach. Those who are in this phase are usually happy to relate to others, sometimes have good intuition as a decision maker, able to work well in unstructured situations, emphasize the value of relationships with people, and happy to engage in a real situation.

b. reflective observation phase
This phase focused on the understanding of ideas and situation with careful observations. This phase emphasizes on understanding as opposed to practical application, attention to what is or how something is going on, and an emphasis on reflection as the opposite of action. Individuals with this phase are happy to think about the meaning of the situation, ideas and
see the implications properly, see things from different perspective. They were pleased to rely on their own thoughts and feelings in shaping opinions, emphasizes the value of patience, intact, caring, and thoughtful consideration

c. abstract conceptualization phase

The point is on the use of logic, ideas and concepts, in understanding problems or situations[7], emphasis on the mind, the establishment of a general theory as opposed to a scientific sense, the approach to the problems of a scientific nature. The characteristics of the individual is capable in systematic planning, manipulation of abstract symbols and quantitative analysis, as well as emphasizing the value precision, discipline in analyzing ideas, aesthetic, and conceptual system

d. active experimentation phase

This phase focused on practical, influence people and changes the situation actively. This phase emphasizes the practical application as opposed to reflective understanding, practical attention on what is going on, and the emphasis on action as opposed to observations. Individuals are happy to take risks to achieve goals, emphasizing on the value to influence the environment and want to see the results.

Furthermore, the combination of these four basic modes of learning are:

a. Convergent learning style

The biggest strength of this style is problem solving, decision making and implementation of ideas. A converger will do best in situations that require only one correct solution. The knowledge organized through deductive reasoning, which can be focused on specific issues. They prefer to deal with problems and technical tasks rather than matters relating to social and interpersonal problems. These people usually have specialized in the field of physical sciences, such as engineers or technicians. On the other side, people with this style do not focus on work, and weak in designing experiments.

b. Divergent learning style

The biggest strength of this type is the imaginative ability and awareness of the meaning and value. Adaptive capabilities of this type is looking at the concrete situation of many perspectives and organizing in the overall relationship that has meaningfulness. A diverger will perform better in situations that require alternative ideas and brainstorming. They tend to be attracted to people, have imaginative and feeling orientation. They also have a broad interest in the field of culture and art. Counsellor, personal managers, those who engaged in the organization development is people who usually have this character. The weaknesses of this style are poor of ideas and not able to recognize the emergence of the problem[7].

c. Assimilation learning style

The biggest strength of this type is in inductive reasoning, creating theoretical models, and assimilate separate observation into one unified explanation. This type is not focus on people, but more on idea and abstract concepts. Individuals with basic science and mathematics background have this style. The weakness of this type is working without basic theory, and is not able to learn from their past mistakes[7].

d. Accommodation learning style

The greatest strength is in doing something; finalize plans and tasks, and involvement in new experience. When the theory or plan does not fit with reality, people with this type would rule out the theory or plan (in the assimilation style, people will look back on that fact). People with this type tend to solve problems using trial and error intuitively, rely on information from
others rather than their own analytical capabilities. These people tend to be "good" with others, but sometimes impatient. People with this type exist in the action-oriented departments, such as marketing or sales. The weakness of this style is not working completely in the right time, and has no direction in setting goals [7].

2. Material and Methods

The Learning Style Inventory (early version), was used in this research. This version is used by the consideration that this tool has been published and can be used commonly. The tool consists of four sets of words and each set consists of nine pieces of word. These sets are arranged such that represent individual characters in phase CE (concrete experience), RO (reflective observation), AC (abstract conceptualization) and AE (active experience).

The next step is to find the individual learning style by combining scores (AC - CE) with (AE - RO), and if there is a negative score still be calculated to determine the position in the type grid. The combination of the two scores is consulted on The Learning Type Grid. Quadrant is used as a reference using data obtained from the original normative group, which consists of 1033 adults aged 18 to 60 years. Two-thirds of them are men, and two-thirds of the whole subject has a level of college education. This type of work subjects includes teachers, counsellors, engineers, sales people, managers, and lawyers [5].

The score obtained by each dimension of learning styles namely AC, AE, CE and RO can be referred back to the group norms. This norm indicates the percentile of the dimension of individual learning styles.

3. Result and Discussion

Table 1 describes predicted learning styles based on several types of job. The data reflects learning styles, types of job, number of respondents and percentage.

<table>
<thead>
<tr>
<th>Learning styles</th>
<th>Types of job</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assimilation</td>
<td>Lecturer</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Divergent</td>
<td>Personnel staff</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Consultant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convergent</td>
<td>Financial technician</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Marketing</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Selling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secretary,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Receptionist</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>97</td>
<td>100</td>
</tr>
</tbody>
</table>

As compared with empirical findings, it is known that there are differences between them, as shown below:
Table 2. Learning styles based on hypothetical and empirical findings

<table>
<thead>
<tr>
<th>Learning styles</th>
<th>Hypothetical</th>
<th>Empirical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assimilation</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Divergent</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Convergent</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Accommodation</td>
<td>34</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>97</td>
<td>97</td>
</tr>
</tbody>
</table>

If the score is calculated from AE-RO and AC-CE then referred back to the learning style quadrants will appear as below:

![Learning Styles Grid](image)

**Figure 1.** The learning styles grid

P1: assimilation (hypothetical) | E1: assimilation (empirical)
P2: divergent (hypothetical)   | E2: divergent (empirical)
P3: convergent (hypothetical)  | E3: convergent (empirical)
P4: accommodation (hypothetical) | E4: accommodation (empirical)

In quadrant assimilator, P1 is located in one place with E1, meaning that the assimilation learning styles for lecturers and teachers fit between predictions and empirical data.

In quadrant diverger, P2 is located in one place with E2, meaning that the divergent learning styles for personnel staff and consultants is also appeared in the field. There were 9 people working as personnel staff and consultants, but in the field divergent learning style become 13 people, meaning that there are 4 workers from other professions have divergent learning styles.

In quadrant converger, P3 is located in one place with E3, meaning that the convergent learning styles for financial staff and technician fit between predictions and empirical data.
In quadrant accommodator, P4 positions is located in one place with E4, meaning that accommodation learning styles for sales job, secretary, public relations, receptionist and general services are also found in the field. The amount of the original 34 people in fact reduced to 25 people, meaning that there are 9 people from this group does not have accommodation learning style and dispersed in the other quadrants.

Based on the description above, it is known that Kolb's learning style models that theoretically found on some certain types of work, also found in some types of work in this study. It is seen from the location of the dots mean score of AC-CE and AE-RO in The Learning Style Grid that fit between the theoretical predictions with empirical as described previously. If there are some people from certain professions that do not have the tendency of learning styles as predicted, does not mean that he will fail in his profession. Theoretically, each learning styles has weaknesses and strengths, so if he does not have a tendency to certain learning styles, it will be supported by the tendency of other learning styles stronger.

For example, if the assimilation learning styles is indicated by a strong characteristic on the ability to build abstract models needed to select priority issues and creates an alternative solution, then those who do not learn this style might be able to construct an abstract model but will not be as good as the people who have this learning style. Theoretically, it is said that the power of solving in an assimilator is organizing information, build conceptual models, test theories and ideas, designing experiments and analyzing quantitative data. People who do not have this style will choose other ways of solving problems that might also be effective. Thus the success of a person in a job is determined by many factors outside of their learning styles.

This explanation applies to the other learning styles. Someone must have different styles, and if he finds that learning style is not effective, does not provide an advantage, then he will try to find different learning styles with changing patterns of appropriate behaviour.

4. Conclusion

All four learning styles predicted to occur in some types of work are also found in this study. Some people do not have a learning style as predicted and this suggests that individual can use other learning styles as an alternatives. A successful job performance is not only determined by the individual's learning style, but also influenced by other factors.

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References

