EFFECT OF LEARNING CULTURE AND LEARNING MOTIVATION TOWARD LEARNING OUTCOMES OF CHEMISTRY STUDENTS

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Abstract

This study is a causal research aimed to find out the effect of direct and indirect learning culture and learning motivation on student learning outcomes. The sample selected was 114 of chemistry student educations and basic science students of the academic year 2015. Data collected using questionnaires and classroom test. Student outcomes were found by conducting classroom test. The questionnaires were distributed to student samples to obtain data of culture learning and student motivation to learn. It was found that direct effect of the learning culture towards student motivation to learn was 30.3%, direct effect of learning culture on student outcomes was 31.9%, and direct effect of learning motivation on student outcomes was 33.3%. In addition, indirect effect of learning culture through learning motivation on student outcomes was 0.100 (10%). Total effect of learning culture and learning motivation toward student outcomes was 66.2%. It can be concluded that the culture of learning and student learning motivation provide a great impact on learning outcomes.

Keywords: Culture of learning, learning outcomes, motivation to learn

A. BACKGROUND OF THE STUDY

Organization researchers have long reported that the culture is the most important actions that can be carried out by organization leaders. Educational experts similarly reported that impact of school leadership on learning is mediated through environmental and school culture indirectly (Hallinger and Heck 1998).

Watson (2001) reminded us that if the culture does not fit with learning environment, it could affect student learning outcomes negatively. Fink and Resnick (2001) also stated that school principals responsible for maintaining good culture on teaching and learning in schools. A Closer look at the special relationship of a particular aspect of school culture for student learning was investigated, which identified three categories of schools based on student learning outcomes, they are ‘Exemplary’ schools, ‘Recognized’ schools and ‘Acceptable’ schools.

A number of researches and publications focused on the impact and effect of principal leaderships on school cultures and student learning outcomes. There was a strong evidence in the literatures suggest that school headmasters must comprehend the culture before change (Leithwood et al. 2001). In addition, Bulach (2001) stated that a
leader supposed to identify existing school culture before trying to change it. Leonard (1999) stated that school principals should examine the dynamics and complexity of the culture of the school when the values are compatible or conflicting with school culture based on predictable results. Mortimore (2001) reminded that we must focus on strengthening knowledge about the complex interaction between culture and schooling.

Lakomski (2001) examined the need to change culture of organizations in order to carry out organizational changes and concluded that there is a causal relationship between the role of leaders and organizational learning.

Identification of the problems
Based on classroom observations it was found that assessment of student learning outcomes was emphasized on student cognitive level regardless motivation learning and student culture. But the students are mainly influenced by various factors such as the culture of learning and motivation to learn. Therefore, it is necessary to study how far the influence of culture of learning and student motivation to learn can affect student outcomes.

B. RESEARCH PURPOSES
1. To determine the direct effect of culture of learning on student learning outcomes
2. To determine the direct effect of learning motivation on student learning outcomes
3. To determine the effect of indirect learning culture through motivation toward student learning outcomes

C. RESEARCH HYPOTHESIS
1. There is a direct influence of the culture of learning on student learning outcomes
2. There is a direct effect of learning motivation on student learning outcomes.
3. There is an indirect effect of learning culture through motivation toward student learning outcomes

D. CULTURAL RELATIONS AND LEARNING CLIMATES
Taylor and Williams (2001) argued that accountability through testing is a threat, so that the principal needs to work on a long-term goal to strengthen cultural learning environment. Fullan (2001) argued that the concept of the principal too limited to sustain school improvement. He promoted the idea that the principal function as an agent of change to transform teaching and learning culture of the school. Testimonies from principals who successfully demonstrated that focusing on the cultural development of the school as a learning environment is fundamental to improve teacher morale and student
achievement. Nomura (1999) suggested that principals need to understand the culture of their schools.

Reavis and Vinson et al. (1999) explored how a new principal at a high school historically showed low performance but bring a change in the school culture and how they affect student achievements. Kytle and Bogotch (2000) studied school reform efforts through ‘reculturing’, rather than ‘restructuring’, model. They found that real and lasting change was more easily achieved by first changing the school culture, not just by changing the structure of how schools operate and function. Principals who choose to lead not only manage but first of all have to understand the culture of the school. It is important to realize that culture is complex because it has a very unique and special works. When an organization clearly understands the goals of the organization, so as to find out why and what to do and who to serve culture so as to ensure all work well.

When the complex roles, values, attitudes, expectations, ideas and behaviors in an organization are not appropriate or congruent, then the culture will ensure that bad things will happen. Successful principals who understand the organizational culture plays an important role in developing a successful school.

Organizational culture and climate of the school was seen as a concept that overlaps (Miner, 1995). Hoy and Tarter et al. (1991) showed the difference between climate and culture, with a school or organizational climate as seen from the perspective of psychological and school culture viewed from the perspective of anthropology. Differences between school climate and culture were highlighted in the study of organizations. Often it is viewed as the behavior of climate, while culture is regarded as the values and norms of the school or organization (Hoy, 1990; Heck and Marcoulides, 1996).

Lunenburg and Ornstein (2004) described organizational climate as a total environmental quality within an organization and believe that the recent attention to the effectiveness of public schools and their culture more emphasis on the importance of climate.

E. LEADERSHIP ROLES

There is strong evidence of the importance of leadership in creating a good school (Freiberg, 1999; Blase and Kirby, 2000; Donaldson, 2001; Sergiovanni, 2001, Snowden and Gorton 2002). In the end, the relationships that shape school culture and climate is strongly influenced by the principal. In schools where achievement is high and where there is a clear sense of community, we found that the principal always makes a
difference (Boyer, 1983). Hallinger and Heck (1998) proposed that the principal does not
directly affect student achievement, but indirectly effects school climates.

This perspective also indirectly occurs on newer models and more complex
research school leaderships. Leadership is no longer proposed to have a direct influence
on learning outcomes but have an influence indirectly through the effects of school
organization and school culture.

Current research suggests that principal has an indirect effect on learning and
mediated by their interactions with other people, events situational and organizational
factors and school culture (Hallinger and Heck, 1998; Hoy and Tarter et al., 2006;
Leithwood and Louis et al. 2004).

Leithwood (1992) was known as the actor 'agents of change' and suggested that it
had an impact on schools through the school culture transformation. Maslowki (2001)
further stated that the relationship between leadership values and behaviors and culture of
school and that the school different cultures can be identified with different consequences
for student outcomes. Furthermore, research studies explored the indirect effects of
school leadership on student outcomes and suggested that it related to the organization of
educational leadership and school culture, which is linked in turn to student achievement.

McLean and Fairman et al (1988), in their work with the health dimension of the
organization, believed that climate diagnosing or school health could be used to empower
school leadership that exists and to identify priorities for improvement that needs to
consider as the goal of school principals. Symbolic leadership is defined as the ability to
understand and shape the culture of the school. A school principal who created a culture
that promotes and encourages learning is very important in order to improve student
achievement in schools (Freiberg, 1999, Sergiovanni, 2001). Successful leaders learned
to look at their organizational environment "in a holistic manner. This is to describe what
the concept of school culture offers principals. It gives them a broader framework for
understanding difficult problems and complex relationships in schools. By deepening their
understanding of school culture, these leaders will be better equipped to shape the
values, beliefs and attitudes necessary to promote a stable learning environment and
maintain student performances (Bossert and Dwyer et al. 1982).

The relationship between school culture and effective leaderships was supported by
educational researches (Leithwood and Jantzi, 1990; Leithwood 1992; Hallinger and

Research methods
The total of 114 of the sample was selected as a sample total of four classes of Chemistry student in academic year 2014/2015. Data was collected by distributing questionnaires of organizational culture and motivation to the student samples. Assessment of learning outcomes was carried out at the end of the semester to student samples.

**E. DATA ANALYSIS**

Data were analyzed using SPSS version 21 and the results are shown in Table 1 below.

**Table 1. Calculation of correlation Coefficients, normality test, homogeneity test, linearity test and path coefficients**

<table>
<thead>
<tr>
<th>No.</th>
<th>Coefficient correlations</th>
<th>Normality test</th>
<th>Homogeneity test</th>
<th>Linearity test</th>
<th>Path coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>$r_{12} = 0.303$</td>
<td>$X_1$ Asymp.</td>
<td>$X_1 F = 48.55$</td>
<td>$X_3X_1 = F = 27.78$</td>
<td>$\beta_{21} = 0.303$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. = 0.238</td>
<td>Sig. = 0.000</td>
<td>Sig. = 0.000 &lt; 0.005</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>$r_{13} = 0.420$</td>
<td>$X_2$ Asymp.</td>
<td>$X_2 F = 48.34$</td>
<td>$X_3X_2 = 24.252$</td>
<td>$\beta_{31} = 0.319$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. = 0.122</td>
<td>Sig. = 0.000</td>
<td>Sig. = 0.000 &lt; 0.05</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>$r_{23} = 0.429$</td>
<td>$X_3$ Asymp.</td>
<td>$X_3 F = 57.84$</td>
<td></td>
<td>$\beta_{32} = 0.333$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. = 0.109</td>
<td>Sig. = 0.000</td>
<td></td>
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</tr>
</tbody>
</table>

Based on the above calculation, it can be described the influence of culture learning and learning motivation to student outcomes are shown in the following diagram.

![Figure 1. Diagram of Cultural of learning and learning motivation toward student outcomes](image-url)
F. RESULTS
Based on the data analysis above, it was found that:
1. Direct effect of the learning culture towards student motivation to learn was 30.3%
2. Direct effect of learning culture on student outcomes was 31.9%
3. Direct effect of learning motivation on student outcomes was 33.3%
4. Indirect effect of learning culture through learning motivation on student outcomes was 0.100 (10%).
5. Total direct and indirect effects of learning culture and motivation toward student outcomes was 66.2%

G. CONCLUSIONS
Based on the above results it can be concluded that:
1. Culture of learning and student motivation to learn have a great impact on student learning outcomes.
2. Improved student learning outcomes are influenced by learning culture and student motivation to learn in addition to other factors that need to be investigated.

H. SUGGESTIONS
1. Lecturer needs to pay attention and learn and develop the culture in improving student learning outcomes.
2. Lecturer needs to develop student learning motivation in improving learning outcomes.

I. REFERENCES


