Teaching Applied: Synectics Application using Leadership Instructional on Creative Design Subject for Upgrading Creativity

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Abstract. The main purpose of this study to identify the upgrading creativity student relation to Synectics learning model using leadership instructional. Leadership instructional used as a mentoring and learning assessment. The methodology of this research is Classroom Action Research manage through 6 Phase study. In cycle 1, practice photography techniques are about 70.1% and the technique of photography with the concept of beauty pre-wedding increase 89.6%, completeness study by 82.45% and 88.3%, in cycle 2 psychomotor learning outcomes also influent in cycle 1 to cycle 2. In cycle 1 amounted to 81.25%. in cycle 2, the percentage of completeness cognitive learning outcomes increase. In both cycle increased to 85%. It can be concluded that Synectics learning can enhance student creativity and improve student learning outcomes both cognitive and psychomotor, and also all of them exactly influence by leadership instructional like Student discipline, Student attendance, Curriculum, and Instruction, Personal Professional Development

1. Introduction
The creative process is the emergence of a new product in action which grew out of the uniqueness of the individual, from experience that emphasizes the new product, and the interaction of individuals with their environment or culture [1] [10].
Katzenmeyer and Moller attempt to demystify teacher leadership [13-16] by providing a series of assumptions to form a more precise definition, including: (1). All teachers versus select teachers; (2). Either formal or informal leadership versus both formal and informal leadership; (3). Classroom-based versus administration-based leadership; (4). Primarily focus on teaching and learning versus primary focus on organizational issues; (5). Responsibility for outcomes versus powerlessness; (6). Leaders are born versus leadership can be learned; (7). Results-driven quality professional development versus disconnected staff development workshops; and 8. Reflective teacher as professional versus teacher as technician [2].
There is a difference of poetry writing skill which is taught by synectics and CTL learning [17], a difference of poetry writing skill which has high vocabulary mastering and low, and an interaction between the synectic learning model and vocabulary mastering of poetry writing skills of grade V students SDN 066041 Medan [8].
The School Improvement Model (SIM) Center at Iowa State University was established in 1980 with a mission of helping school organizations improve teacher performance and student achievement. In the late 1980s, based on research showing that what teachers teach is more important in student achievement than how teachers teach, the Center developed a framework for creating well-written curriculum documents that align with state and national standards as well as with locally identified needs. Since then, the SIM Center has provided curriculum development training in school organizations across the nation to help them meet their goals for improving student achievement [3].

The synectics learning model leads to learning that can develop the creativity of students [4]. The Synectics approach relies on bringing the three keys of Climate, Thinking and Action together. Foremost is a supportive climate, which is made up of the behaviors we use to work with others, to give and receive ideas and to build the trust environment for speculative ideas to be offered. Thinking requires pushing out our idea boundaries using the spectrum of ‘Thinking and Developmental Thinking’, which takes promising but speculative ideas, and builds feasibility into them. Synectics emphasis on developmental thinking is a key differentiating feature compared to brainstorming and other creative [21] problem-solving techniques. Finally, there is a set of action steps which move the process along with an emphasis on creative problem-solving to get to actionable execution [4], as figure 1.

As one learning model, Synectics has several advantages, such as, (1) increasing the ability to live in an atmosphere which appreciates differences, (2) to be able to stimulate creative thinking abilities, (3) to be able to activate both hemispheres, and (4) to be able to create new ideas. The basis of the Synectics model is to enrich the creativity of learning outcomes [4][11-12].

Base on the Center for Teaching Quality, National Board for Professional Teaching Standards, and National Education Association outline competencies for three specific types of leadership roles—instructional, policy, and association leadership—as well as overarching competencies that apply to all three groups, including: (1) Instructional: Coaching/mentoring, collaboration/relationships, community; (2) Policy: Implementation, advocacy, policy-making, and engagement; (3) Association: Leading with vision, leading with skill, organizing/advocacy, building capacity, and community/culture; (4) All Teacher Leaders: Reflective practice, personal effectiveness, interpersonal effectiveness, communication, continuing learning, group processes, adult learning, and technological facility [5].
2. Method
In this study using classroom action research, this activity was conducted to determine the level of creativity created after the second cycle, as figure 3. The number of the respondent in one cycle amount 91 students, divide as two classes of cosmetology education, bachelor degree 2016 and the number of validators and that activity 3 people as professional in curriculum development.

2.1. Data analysis technique
This study uses data analysis techniques as follows:
1. Analysis of learning observation data - lecturers manage the analysis of lecturer/classroom data on the application of this learning model. Synectics is analyzed by calculating the average category of learning carried out. Checking the activities of the person in charge of the class (PJ) in leading the class such as reminding assignments, class cleanliness, dress code themes every week.
2. Analysis of observations of student creativity - an analysis of student creativity data was measured using a scale and Likert percentage. Formulations and tables are combined to make an analysis of learning observation data.
3. Test data on student results analysis - at this stage, analysis of achievement tests aims to identify student learning outcomes in terms of completeness of student learning. The analysis is done by calculating the evaluation value and turning it into a percentage.
4. Analysis of student work - analysis of student performance aims to determine the results of the evaluation of creative thinking that was previously theorized in groups. The analysis is done by calculating the performance value which is then modified in the percentage calculation.

In addition to those qualities, outlines several core values that effective teacher leaders should espouse, including: (1) Equity: Having a belief in all children’s abilities, and challenging inequity; (2) Service: Listening and seeking to understand others, and working to address student needs; (3) Community: Supporting, celebrating, challenging, and collaborating with colleagues; (4) Growth: Developing oneself and others, identifying one’s limitations, and seeking opportunities to leverage strengths and develop growth areas; and (5) Results: Demonstrating diligence, high expectations, commitment, and personal responsibility. [5].
3. Results and Discussion

In cycle 1, practice photography techniques are about 70.1% and the technique of photography with the concept of beauty pre-wedding increase 89.6%. In cycle 1 completeness study by 82.45% and 88.3%, in cycle 2 psychomotor learning outcomes also influent in cycle 1 to cycle 2. In cycle 1 amounted to 81.25% and on cycle 2 increased to 85%.

Cycle 1:
Students are given basic photographic material, then given the task of photography to make a magazine cover, then the next week evaluates the results, it turns out the results are as shown below 4;

![Figure 4. Cycle 1 photography material for the cover of fashion magazines](image)

After being evaluated in the following week, the results are not yet satisfactory because students lack concepts, search for less inspirational ideas, and creativity is still not optimal. Then the lecturers coordinate with PJ to require each week for college students to use dress code, with the aim of increasing creativity as figure 5

![Figure 5. Adjustment of dress code for each lecture](image)

Between the first and second cycles, the project was made to make beauty product photography which the final output made a packaging design. Creativity begins to be seen, the product photography results are valid based on the questionnaire given to the validator, such as figure 6

![Figure 6. Photography of beauty products for packaging design](image)
Cycle 2:

Because based on the validity of the results stated to be accepted by the validator, then the lecturer coordinates with the person in charge of the class (PJ) to make the concept of pre-wedding with an outdoor location, which hopefully the results of the photography are better.

The following is the result of the second cycle after the 4th week the photo shoot was conceptualized by PJ leadership intervention in motivating his classmates to produce the best and maximum portfolio. in cycle 2, the percentage of completeness cognitive learning outcomes increase.

![Figure 7](image)

Figure 7. Fashion Photography using the pre-wedding concept

4. Conclusion

It can be concluded that Synectic learning can enhance student creativity and improve student learning outcomes both cognitive and psychomotor, and also all of them exactly influence by leadership instructional like Student discipline, Student attendance, Curriculum and Instruction, Personal Professional Development, that are suitable for statement The Center for Teaching Quality, National Board for Professional Teaching Standards, and National Education Association outline competencies for three specific types of leadership roles—instructional, policy, and association leadership—as well as overarching competencies that apply to all two classes in 15 groups, including [5]: (1) Instructional: Coaching/mentoring, collaboration/relationships, community; (2) Policy: Implementation, advocacy, policy-making, and engagement; (3) Association: Leading with vision, leading with skill, organizing/advocacy, building capacity, and community/culture; (4) All Teacher Leaders: Reflective practice, personal effectiveness, interpersonal effectiveness, communication, continuing learning, group processes, adult learning, and technological facility.

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