

## **Utilizing Authentic Problem Based Learning (APBL) Method as a Part of Contextual Teaching and Learning (CTL) Model for Improving Students' Achievement in Entrepreneurship Subject**

Munawaroh<sup>1</sup>, Nanik Sri Setyani<sup>2</sup>  
<sup>1,2</sup> Stkip Pgri Jombang

---

**Abstract:** *The objectives of this present research are to determine the appropriate sets of learning stuff for teachers to support their teaching and learning activities, especially in SMK 1 Jombang. The teaching and learning components consisted of a syllabus, lesson plans, student handouts, Worksheets 1, Worksheet 2, Worksheet 3, PowerPoint media, and Assessment Sheet. Furthermore, the feasibility of the developed learning stuff can be identified from several criteria namely: 1) the validation of learning stuff, 2) the observation of teacher and students' activities, 3) test, and 4) students' responses to the learning stuff. One-shot case study was applied to the design of a research and students of class XI majoring in financial accounting in SMK N 1 Jombang was the subjects of this research. The researcher employed questionnaires, observation and test as data collection technique. Then, the data were analyzed using quantitative data analysis technique for finding the percentage of student learning achievement and students' teaching and learning process. The finding showed that 1) the teaching and learning process runs well by using Authentic Problem-Based Learning method as a part of contextual teaching and learning model, 2) the students' achievement reached 81.5% and 96.3 for cognitive and psychomotor aspect respectively, and in term of affective assessment, only 7% students perform poorly, 52% students perform well and 41% achieve very well. 3) The students responded positively on the learning stuff in which 91.3% students showed good responses to the learning model, handouts, worksheets, and power point media during the teaching and learning process dealing with the topic of business opportunities for vegetable and animal substance processing into typical food products of the region.*

**Keywords:** *Achievement, Contextual Teaching and Learning Model, Authentic Problem-Based Learning Method*

---

### **I. Introduction**

Education influences the quality of life of nations. The role of education is very important to create intelligent, peaceful and democratic life. Therefore, education reform is always carried out for improving the quality of education. The development of a nation can be achieved through the conformity of good education. Various efforts to improve the quality of education must be done for rising Indonesian's human dignity.

Nowadays, problems faced by Education in are the low quality of education especially in a primary and secondary education. Various attempts have been done to improve the quality of education through training and improving the teachers' competence, stipulating of textbooks and teaching stuffs, fixing facilities and infrastructure to education, improving school management, however, it has not showed any significant increase.

From the point of view of autonomy paradigm, the implementation of School-Based Quality Improvement Management is considered to be one of solutions for achieving the quality of schools. In terms of implementing the 2013 curriculum and improving the quality of schools, sharing among teachers can provide motivation and innovation for teachers to create enjoyable learning by applying Contextual Teaching and Learning (CTL) model.

Contextual teaching and learning is a teaching and learning concept that assist teachers to connect the content of lesson to real world conditions and encourage students to relate knowledge and its practices to their lives (Berns and Erickson 2001, Johnson, 2002). Through CTL, educators have followed the three principles of modern scientific namely: 1) interdependence, 2) differentiation, and 3) self-regulation. The principle of interdependence implies that everything in the universe is interdependent and interconnected. This principle encourages educators to connect with other educators, students, community and environment. Furthermore, it stimulates students to work together, to express opinions, to listen to each other to solve problems, to design plans, and to find solutions to problems. In addition, this principle connects various experiences of each individual to achieve high academic standards. The principle of differentiation refers to the encouragement for constructing diversity, differences and uniqueness in the universe. For the context of differentiation, it gives freedom for students to explore their ability, to be aware of each learning style and strategy. Consequently, students are encouraged to use their creative and critical thinking in order to produce a great thing.

The principle of self-regulation asserts that everything is set up, maintained and recognized by ourselves. This principle requires students to demonstrate their potential. They accept responsibility for their own decisions and behavior, assessing alternatives, making choices, developing plans, analyzing information, making solutions and critically evaluating evidence. Furthermore, the interaction among students will lead to a new understanding, an outlook for identifying personal interests, as well as the power of imagination and ability to survive for their lack of expertise. In the contextual teaching and learning, teachers are required to facilitate students to achieve their goals. Teachers are responsible for providing appropriate strategy rather than to be the source of information. Teachers manage classes in such way for improving students' achievement. Teaching and learning activities focus on Student-centered rather than teacher-centered approach. Westwood (2008) stated that student-centered approach is teaching and learning process in which teachers provide a good chance for students to develop acquisition of independent study skills, greater student autonomy and working collaboratively with others.

According to National Education Department of Indonesia (year), teachers must follow some indicators during teaching learning process. They are as follows: 1) reviewing the concept or theory that will be learned by students. 2) Understanding students' background knowledge through in-depth reviewing process. 3) Analyzing the students' learning environment in terms of their school and house for connecting to the concept or theory that they will be discussed in contextual learning. 4) Designing teaching and learning activities by connecting the theory with the students' experiences in their environment. 5) Conducting an assessment for students' comprehension, in which the results will be used for reflection. Curriculum and instruction based on CTL should be developed to encourage five important structure of learning, namely connecting, experiencing, applying, cooperating and transferring. National Education Department of Indonesia (year) stated that CTL has seven major components, namely Constructivism, Inquiry, Questioning, Learning Community, Modeling Reflection and Authentic.

2013 Curriculum provides entrepreneurial skills for students in secondary level. It is started from an observation of the characteristics existing products in the market, an analysis of structural part of the material of the products, an analysis of the structure and set of processes and necessary equipment as well as market, costs and prices analysis. Students are supported for not only producing creative ideas but also producing the prototypes of real product. Also, it followed by market activities to boost economic value.

The subjects of entrepreneurship is deemed as an uninteresting subject, even it is viewed as an unimportant and detrimental for the cognitive development. The understanding of the content, meaning, and purpose of this lesson is not deeply grasped. The entrepreneurial learning also has not benefit to the students' psychological development. Moreover, this subject is not included in the national examination so that students think that this lesson is not pivotal. On the other hand, entrepreneurship is an essential lesson because students can explore themselves to be creative, innovative and independent citizens. Referring to the case the entrepreneurial subject is offered in Vocational High School for providing specific value to the vocational school graduates. It entails that having graduated from vocational schools, graduates are expected to open new business or become young entrepreneurs. As a result, the role of entrepreneurial teacher is important to give provisions to vocational students in order to have an understanding of business for their daily life so that they can run their own business.

Entrepreneurial teachers should apply various methods in the teaching and learning process. This material is not focused on the theory but on the practical applications. The vocational students at the tenth until twelfth grade must learn materials that require practical application both in individual and group works. Hence, teachers must select appropriate learning methods in accordance with Competence Standards and Basic Competence in the curriculum of entrepreneurial subject.

The first step to be addressed is to improve entrepreneurial learning, because it has a very important role in growing entrepreneurial attitudes. Through entrepreneurial learning, the knowledge (cognitive), attitudes (affective) and skills (psychomotor) for business can be enhanced. By selecting appropriate methods and media, the entrepreneurial learning will be interesting, as a result, students will be motivated to learn entrepreneurial subject. Dealing with the importance of motivation and life skills in a learning process in the vocational school, it is necessary to develop learning model that assist students to boost their motivation and life skills. It can be done through implementing Authentic Problem based learning (APBL) method. It is a method of student-centered learning that stimulates students to acquire and apply knowledge and skills including solving problems (Barrows & Neo Lynda, 2007: 1). They say further that this method is designed to provide knowledge and skills needed for the job, the ability to continually learn in solving problems and facing challenges, as well as the ability to develop. Therefore, the implementation of Authentic Problem based learning (APBL) is expected to enhance students' problem solving skills in the field of entrepreneurship subjects.

According to the research that has been undertaken by Yuliati (2012), Authentic Problem based learning (APBL) can improve learning outcomes in the cognitive, affective, and psychomotor aspects. The improvement of the learning outcomes was due to the existence of APBL facilitates students to learn actively

independently by using physical phenomena directly. Then, research conducted by Susiana (2012) reported that the teaching of science by using Authentic Problem based learning (APBL) can enhance creativity, interpersonal relationship and concept mastery. Through reflection of their learning experience, students were motivated to produce higher quality works that increase not only their learning outcomes in terms of cognitive knowledge aspect, but also enhance motivation and life skills such as personal skills, ability to gather information, ability to communicate both in oral and in written form as well as problem solving skills.

Responding to the above challenges, the implementation of Authentic Problem Based Learning for the entrepreneurial subject in the vocational schools is expected to solve the problems in the entrepreneurship subjects in Vocational High School in Jombang regency. The research problem of this present study is "How can the use of Authentic Problem Based learning method as a part of Contextual Teaching and Learning improve students' achievement in the Entrepreneurial subject in the financial accounting major of the State of Vocational High School 1 Jombang?". The objectives of this study are to apply the appropriate learning stuffs employed by teachers to support learning activities, especially in the State of Vocational High School 1 Jombang. The teaching and learning components consisted of syllabus, lesson plans, student handouts, Worksheets 1, Worksheet 2, Worksheet 3, PowerPoint media, and Assessment Sheet. Furthermore, the feasibility of the developed learning stuffs can be identified from several criteria namely: 1) the validation of learning stuffs, 2) the observation of teacher and students' activities, 3) test, and 4) students' responses to the learning stuffs

## II. Research Methods

This present study was descriptive research design using one shot case study. The treatment was given to a group by implementing Authentic Problem-Based learning method as a part of Contextual Teaching and Learning model which was then given a post-test to determine students' achievement. This research was conducted in the State of Vocational High School 1 Jombang (SMK Negeri 1 Jombang) in the second semester in March 2016 on the subjects of Crafting and Entrepreneurship by using Authentic Problem-Based learning method as a part of Contextual Teaching and Learning model. The subject of this research was the students at the XI grade majoring in the financial accounting major.

The procedures of this present study were at three stages, namely, 1) preparation; 2) implementation; and 3) analysis. Observations, questionnaires, and tests were employed as the method of collecting data. Then, the data were analyzed using quantitative data analysis technique for finding the percentage of student learning achievement and students' teaching and learning process. The first data were about the teaching-learning process. The learning process assessment category based on Likert Scale from every aspect being observed. Likert scale was utilized to determine attitudes and perception about events or social phenomena (Ridwan, 2003: 12). Every aspect has a scale of 1-4 Sugiyono (2010: 143) in which 1 is for poor, 2 is for pretty good, 3 is for good and 4 is for excellent. It was then calculated by using the following formula :

$$\text{Average} = \frac{\text{The number of scores obtained}}{\text{Total maximum score}}$$

From the average data was then converted into the percentage (%) by the formula:

$$\text{Average} = \frac{\text{The number of scores obtained}}{\text{Total maximum score}} \times 100\%$$

The Description of criteria of the percentage assessment scale is as follows:

**Table1:** criteria of the percentage scale (Ridwan, 2003)

Percentage	Criteria
0 – 20 %	Very poor
21 – 40 %	Poor
41 – 60 %	Medium
61 – 80 %	Good
81 – 100%	Very Good

Then, the data of learning achievement were obtained through two tests, namely cognitive and psychomotor tests. This test is used to determine the extent of completeness of student learning and student achievement that can be calculated by the formula:

**a. The cognitive learning achievement**

$$\frac{\text{The number of scores obtained}}{\text{Total maximum score}} \times 100\%$$

In which:

The score obtained by the students: Score that was obtained by each student

Scores Maximum: maximum score of the cognitive tests

**b. Psychomotor learning achievement**

$$\frac{\text{The number of scores obtained}}{\text{Total maximum score}} \times 100\%$$

In which:

The score obtained by the students: Score obtained psychomotor each student

Scores Maximum: maximum score of psychomotor tests

To calculate the percentage of the total of student learning achievement in the classroom, the following formula was applied.

$$\text{Total Score} = \frac{\text{The number of students who completed the task}}{\text{Total number of students}} \times 100\%$$

If a student scores in the cognitive and psychomotor aspect were the same or more than 75, then students were considered successful in the learning process. Furthermore, If 75% of students get good grades, it implies that students' achievement have been achieved

**c. Affective learning achievement**

$$\frac{\text{The number of scores obtained}}{\text{Total maximum score}} \times 100\%$$

In which:

The number of scores obtained: score in attitude scale

Total Maximum points: maximum sore from the scale of attitudes

The data about students' responses were employed by using Guttman rating scale by using "Yes" and "No" responses and it was calculated by using the following formula

$$P = \frac{\text{The number of scores obtained}}{\text{Total maximum score}} \times 100\%$$

The results obtained were then categorized according to the following criteria:

Table 2. Score Interpretation (Sudjana, 2005)

Percentage	Criteria	Category
0 – 20	Very Poor	Require improvement
21 – 40	Poor	Do not show improvement
41 – 60	Medium	Show a slight improvement
61 – 80	Good	Show improvement
81 – 100	Very Good	Show a great improvement

**Research Findings**

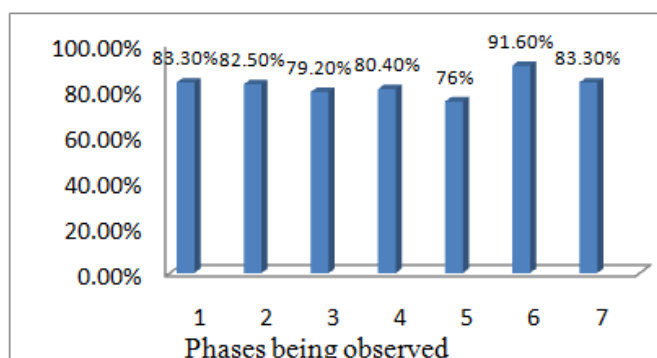
The findings showed that the learning stuff are suited to the students' needs by using Problem Based Authentic learning method as a part of CTL model. The objectives are to guide students to face to real-world situations. Learning stuff was firstly tested for expert's validation to get the improvement result before

implemented in the classroom. There were 4 experts that validated the learning stuff, 2 lecturers from STKIP PGRI Jombang and 2 teachers from SMKN 1 Jombang. The teaching and learning components consisted of a syllabus, lesson plans, student handouts, Worksheets 1, Worksheet 2, Worksheet 3, PowerPoint media, and Assessment Sheet.

The average score from syllabus showed 95.4% and it can be categorized into “very good”. Furthermore, both teaching materials and media are classified into “very good” at 94.6% and 85.9% respectively. Similarly, the cognitive and psychomotor test items showed “very good” category at 93.7% and 97.9% correspondingly. Then, the result of expert validation for observation sheet instrument showed “very good” responses at 95.8%. Lastly, the questionnaire, also, is in a “very good” category in which the experts scored 94.8%. Having validated and achieved “very good” criteria, the learning stuff would be applied in the research subjects.

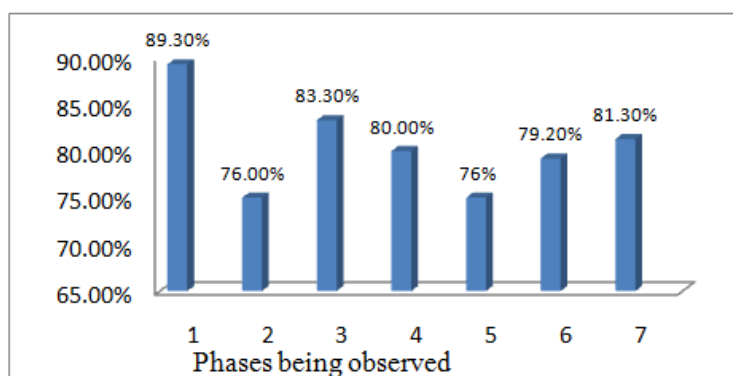
**A. The successful teaching and learning process using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

Observation was conducted three times by two teachers who had training for analyzing business opportunities for vegetable and animal substance processing into typical food products of the region. The observation for the 1<sup>st</sup> meeting aimed at achieving the students’ thinking skills and concept mastery for analyzing business opportunities for vegetable and animal substance processing into typical food products of the region. Also, students are expected to implement the concept based on the provided situation and analyze thoroughly the vegetable and animal substance processing into typical food products of the region. The result of observation can be depicted into the following figure:



**Figure 1:** The result of observation of the learning process Based on CTL in the 1<sup>st</sup> meeting

The diagram above illustrates the percentage of all phases of teaching and learning by using APBL as a part of CTL model. It shows that 75% achieved the standard due to the total phases reached an average score of 82, therefore, it is categorized into “very good”. It is immediately clear that the highest aspect is in the 6<sup>th</sup> phase in the reflection part at 91.6%. However, the lowest aspect is the learning community in the 5<sup>th</sup> phase at 76% and it is classified into “good” category. The observation for the 2<sup>nd</sup> meeting was intended to boost students’ practical skills for analyzing business opportunities for vegetable and animal substance processing into typical food products of the region based on the theory which was got previously. The result of observation can be illustrated as follows:



**Figure 2:** The result of observation of the learning process Based on CTL in the 2<sup>nd</sup> meeting

Figure 2 depicts the percentage of all phases of teaching and learning by using APBL as a part of CTL model. It illustrates that 75% achieved the standard due to the total phases reached an average score of 80.4, therefore, it is categorized into "good". It is also obvious that the highest part is in the 1<sup>st</sup> phase in the constructivism phase at 89.3% and it is considered "very good". Nevertheless, the lowest achievement is the inquiry and learning community aspects in the 2<sup>nd</sup> and the 5<sup>th</sup> phase at 76% and it is categorized into "good" category. The observation for the 3<sup>rd</sup> meeting had a purpose to see how well students apply their ability based on the model provided. This observation, also, focus on how well they interact to each other, particularly consumers and to tackle various problems In analyzing business opportunities for vegetable and animal substance processing into typical food products of the region based on the theory which was got previously. The summing result can be seen into the figure below:

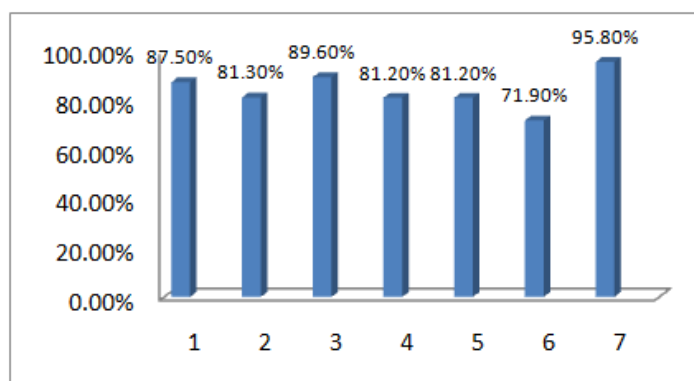


Figure 3: The result of observation of the learning process Based on CTL in the 3<sup>rd</sup> meeting

Figure 3 shows that among 7 aspects being observed, the average score reached 84.1% and it had "Very Good" category. The highest percentage is in the 7<sup>th</sup> phase in the aspect of authentic assessment at 95.8% and it is categorized into "very good", while the lowest percentage are in the 6<sup>th</sup> phase for the reflection aspect at 71.9% and it is at "good" category. The result can be seen in the following figure.

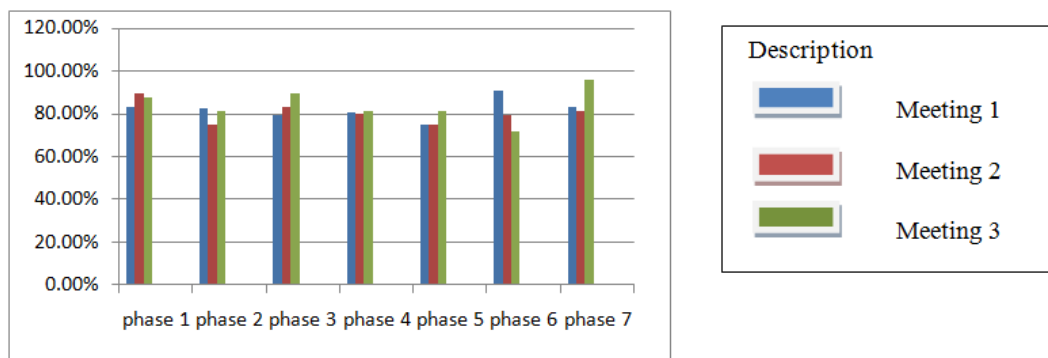


Figure 4: The result of Phases being observed for the implementation of APBL method as a part of CTL method in 3 meetings

Referring to the figure above, it is obvious that the lowest percentage in the 1<sup>st</sup> and 2<sup>nd</sup> meeting is constructivism and inquiry respectively. However, questioning phase took the lowest percentage in the 1<sup>st</sup> meeting. Then the modeling phase is almost in the same proportion for each meeting. Furthermore, the learning community phase achieved the same proportion in the 1<sup>st</sup> and 2<sup>nd</sup> meeting; however, it reached the highest achievement in the 3<sup>rd</sup> meeting. Moreover, there is a decrease proportion of performance during reflection phase in each meeting correspondingly. Finally, the authentic assessment phase performed best in the 3<sup>rd</sup> meeting at 95.8%.

**B. Students' Learning Achievement using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

The students' learning achievement measured in this study includes three aspects namely, cognitive, psychomotor and affective. The results of students' cognitive learning achievement in three meetings is shown in the following figure

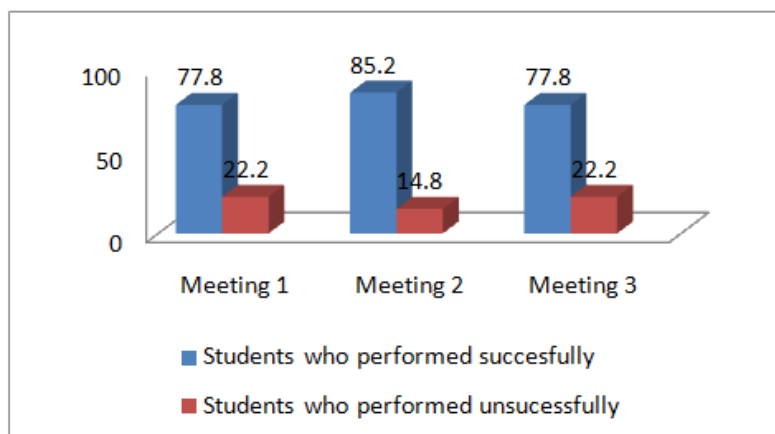


Figure 5 : The percentage of Cognitive Learning Achievement

Referring to Figure 5, it illustrates that the average cognitive score for 3 meetings is 79.6 and it is considered greater than the Minimum Completeness Standard at 75. It also reports that 22 students or 81.5% performed successfully and only 3 students or 18.5% did not achieve the standard. In the psychomotor aspect, the results of students' learning achievement in three meetings can be viewed as follows

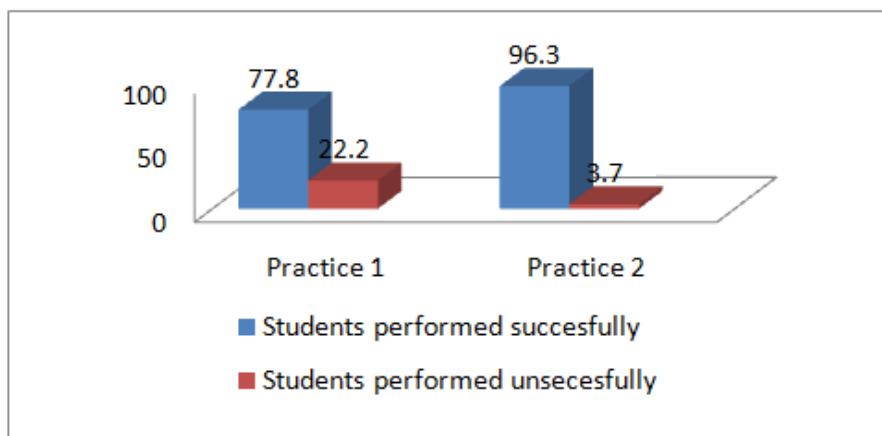


Figure 6 : The percentage of Psychomotor Learning Achievement

Referring to the figure 6, we can see the average score of psychomotor learning achievement from two performances is 80.7 and it is deemed greater than the Minimum Completeness Standard at 75. Furthermore, it informs that 26 students or 96.3% performed successfully and only 1 student or 3.7% student did not achieve the standard. In the affective aspect, the result of assessment that was done in three meetings is presented in the following.

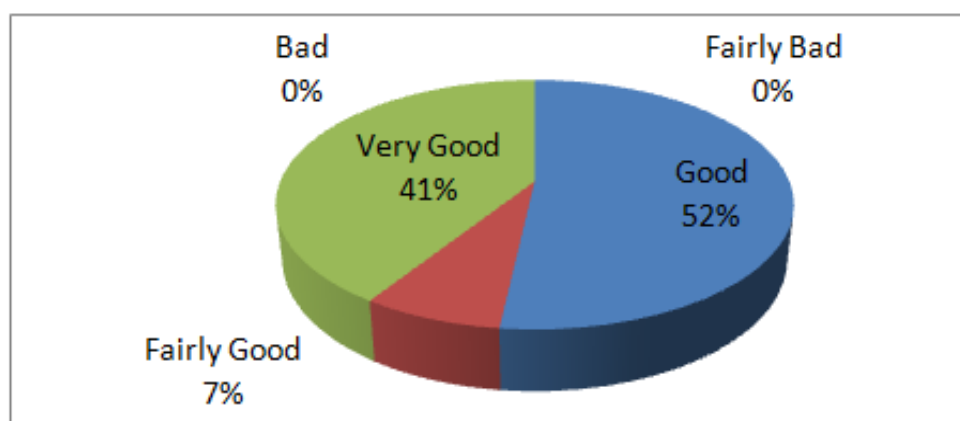
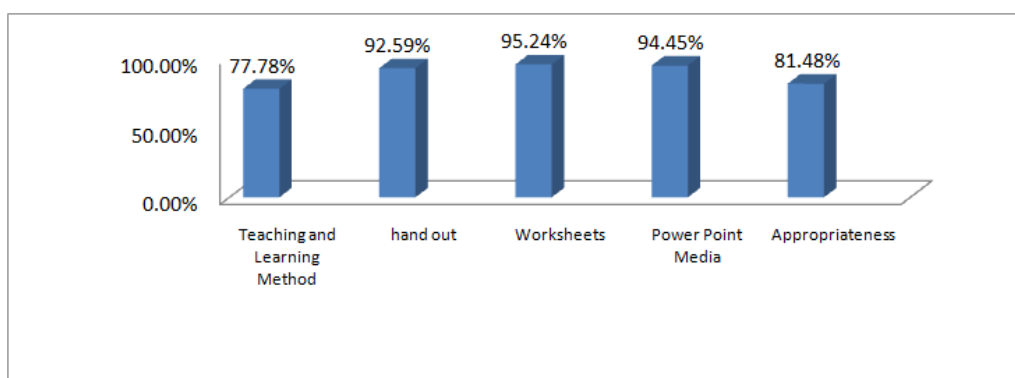


Figure 7: The Percentage of Affective Learning Achievement

Figure 7 illustrates the result of observation for students' attitudes during the implementation of APBL method as a part of CTL model. It shows that 52% of the students were in "good" criteria. Then 41%, 7% of students were in "very good" and "fairly good" criteria respectively. On the other hand, No one was included as "bad" and "fairly bad" criteria.

**C. The Students' Responses on the Instructional Materials by using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

In this present study, student responses refers to students opinion dealing with instructional materials applied in APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region. The result of questionnaire revealed the students' responses. It is clearly presented in the following:



**Figure 8:** The Percentage of Students' Responses on Instructional Materials

Figure 8 informs that most students showed good responses on the instructional materials. 77.8% students responded positively to the learning model employed. Then, 92.6% and 95.2% students showed good responses on the applied handout and worksheet respectively. In addition, students' responded positively on power point media and the appropriateness of the instructional material to the students' needs at 92.6% and 81.5 % accordingly.

**III. Discussion**

According Aunurrahman (2009: 34) learning is considered as a teaching and learning process which the interaction between teachers and students as well as students and students occur in order to change in students' behavior as its final goal. In this present research, the implementation of APBL method as a part of CTL model refers to 2013 curriculum. According to the Regulation of the Minister of Education and Culture Affairs of Indonesia No. 70 in the year of 2013, the implementation of 2013 curriculum must be accordance to the core competencies. In order to support the successful implementation of 2013 curriculum, there is a need for strengthening the management of particular schools including in the Vocational High school. The activities could be in the form of 1). Teaching approach must be transformed into collaborative work rather than individual one and 2). The development of infrastructure must support the teaching and learning process. Thus, teaching by using APBL method as a part of CTL model is deemed appropriate for supporting the successful implementation of 2013 curriculum.

**A. Discussion of the successful teaching and learning process using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

Process Assessment focuses on the effectiveness of teaching and learning activities in order to achieve learning objectives. The successful of teaching and learning process using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region has an impact on student learning achievement. This process assessment is carried out by using direct observation during the learning process took place. The findings showed that in the first meeting, the process of teaching and learning process focus on the comprehending theory by using APBL method as a part of CTL model. There is 7 aspects to be observed namely 1) constructivism, 2) inquiry, 3) questioning, 4) modeling, 5) learning community, 6) reflection and 7) authentic assessment. The average score for all the aspects are 82% and it categorized into "Very Good". Furthermore, in the second meeting emphasized more on practical skills for analyzing business opportunities for vegetable and animal substance processing into



typical food products of the region based on the theory which was got previously. The result of observation showed that the average score is 80.4% and it is considered to be “. "Good". Then the third meeting was taken into account of the ability of the students to apply theory into practice. All the CTL aspects were performed well at 84% and it is categorized into “Very Good”.

Referring to the result of observation in 3 meetings, it has achieved the criteria of completeness. Still, it is difficult to avoid the decrease and increase of each aspects being observed. For example, the average score for constructivism aspect as the first phase is only 83.3% in the first meeting. This happened due to teachers lead students more for understanding the materials. On the other hand, teachers get used to make acquainted students to actively construct their own knowledge in analyzing business opportunities. Focusing on the second phase in CTL learning called inquiry got the lowest score in the second meeting. This phase is considered central for teaching learning process by using APBL as a part of CTL model because the process of acquiring knowledge and skills is not a result of retaining information but as a result of finding answers from their own questions. In this case, knowledge as the part of learning does not get by considering a number of facts but also from stimulating learning that allows the students to find their own material in the real context. At the second meeting, students were still put into practice for identifying business opportunities. Thus, the students are still not accustomed to finding the answer to their own questions. It seems that they still tried harder to comprehend the materials. However, this could be solved by regular practice or familiarize students to use critical thinking in finding answers to their questions in relation to the subjects of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.

In the questioning phase, the lowest achievement is in the first meeting. It is found that students had not actively rise questions due to the influence of regular practice previously and the involvedness to follow new method being applied. Nonetheless, the average percentage for modeling in each meeting was relatively similar. Model in Contextual Teaching and Learning can be a kind of writing instruction, reading instruction or teacher gives an example in doing something. The teacher seemed apply appropriate step in giving instruction. Similarly, in the community learning aspect, each meeting gains the same mean of proportion. Yet, there is the greatest achievement for the third meeting. Learning community suggests that learning achievement can be obtained through working with each other. This phase is beneficial for practicing students' communicative skills. Therefore, it is undeniable that students were used to perform well for communication with each other in the third meeting.

In the reflection phase, there is a decrease percentage at each meeting. Reflection is the ways of thinking about what the students have learned and thinking about what they have done in the past. Teachers can recall the information that acquired in the action. In this case, the teacher provides times for students to reflect what they have learnt that day. Due to limited time, this phase could not be done completely in each meeting.

The last phase is authentic assessment which was most prominent at the third meeting at 95.8%. It is important to have assessment for the teacher in order to check whether the students have mastered the material or not. The focus of this assessment is providing the tasks which are relevant to the process and product of the teaching and learning. Observation revealed that in the third meeting, the teacher observe thoroughly how students applied hair bun to the model by moving around in order to get closer to each student.

## **B. Discussion of students' learning achievement of the implementation of APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

The students' learning achievement measured in this study includes three aspects namely, cognitive, psychomotor and affective. Referring to the results of students' cognitive learning achievement in three meetings, it reveals that the average cognitive learning achievement for 3 meetings is 79.6 and it is considered greater than the Minimum Completeness Standard at 75. It also reports that 22 students or 81.5% performed successfully and only 3 students or 18.5 students did not achieve the standard. From the view of psychomotor learning achievement, the students' average score of from two performances is 80.7 and it is greater than the Minimum Completeness Standard at 75. Furthermore, it informs that 26 students or 96.3% performed successfully and only 1 student or 3.7% student did not achieve the standard. Psychomotor domain relates discreet physical functions, reflex actions and interpretive movements. It concerned with the physically encoding of information with movement such as cooking, farming, sewing and others. Psychomotor learning achievement, according to Simpson (1956) which is presented in this study is in the form of performance and ability of the individual. In line with the result of observation for students' attitudes during the implementation of APBL method as a part of CTL model. It shows that 52% of the students were in “good” criteria. Then 41%, 7% of students were in “very good” and “fairly good” criteria respectively. According Bloom (1978) includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. This present research applied the authentic assessment in terms of 1) the result of students' self-assessment in the form of questionnaire and 2) the result of teacher's observation

on students' attitudes during teaching learning process in each meeting. The aspects being observed is Religious attitude (Core Competence 1) and discipline, polite, care, communicative, responsible, responsive, active, honest and creative manners (Core Competence 2).

### **C. Discussion of Students' Responses on the Instructional Materials by using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region.**

Data about students' responses to learning stuffs are obtained by using questionnaire by using Guttman scale that provide two option "Yes" and "No" response. From the data obtained, it is obvious that most students showed good responses on the instructional materials. 77.8% students responded positively to the learning model employed. Then, 92.6% and 95.2% students showed good responses on the applied handout and worksheet respectively. In addition, students' responded positively on power point media and the appropriateness of the instructional material to the students' needs at 92.6% and 81.5 % accordingly.

## **IV. Conclusion**

In accordance with the findings and discussion of teaching and learning by using APBL method as a part of CTL model for the topic of analyzing business opportunities for vegetable and animal substance processing into typical food products of the region can be concluded that; Firstly, teaching and learning by using APBL method as a part of CTL model which are being observed by 2 experts is successful. Even though, different average percentage in each phase is occurred due to a number of particular factors. Secondly, the average score for cognitive and psychomotor learning achievement could meet the Minimum Completeness Standard. Further, it showed that 81.5% and 96.3% performed successfully for cognitive and psychomotor aspect respectively. Then in the affective aspect, It shows that 52% of the students were in "good" criteria and 41%, 7% of students were in "very good" and "fairly good" criteria correspondingly. Finally, most students showed good responses on the learning stuffs. 91.3% students responded positively to the learning model, handout, worksheets, power point media and the appropriateness of the instructional material to the students' needs for analyzing business opportunities for vegetable and animal substance processing into typical food products of the region

## **Bibliography**

- [1]. Aunurrahman. (2009). Belajar dan Pembelajaran. Bandung : Alfabeta
- [2]. Berns R.G., P. M. Erickson. P.M, (2001) Contextual Teaching and Learning: Preparing Students for the New Economy, *The Highlight Zone: Research @ Work* No. 5, 2001. Retrieved May 8, 2016 from: <http://www.nccte.org/publications/infosynthesis/highlightzone/highlight05/highlight05-CTL.pdf>
- [3]. Barrows, Howard S and Lynda, Wee Keng Neo, 2007, Principle and Practice of APBL Singapore: Prentice Hall
- [4]. Bloom, Benyamin S (1978) *Taxonomy Of Educational Objective*. New York : Longman=
- [5]. Johnson, E.B. (2002) Contextual Teaching and Learning: What it is and why it' here to stay London: Corwin Press.
- [6]. Kementrian Pendidikan dan Kebudayaan. 2013. Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 70 Tahun 2013
- [7]. Riduwan. 2003. *Skala Pengukuran Variable-Variabel Penelitian*. Bandung: Alfabeta.
- [8]. Rizki Amelia, Lia Yulianti, Muharjito, Pengaruh Authentic Problem Based Learning (APBL) terhadap kemampuan pemecahan masalah mahasiswa pendidikan fisika Universitas Negeri Malang.
- [9]. Sudjana. 2008. *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT. Remaja Rosdakarya.
- [10]. Susiana, nanci, 2012, *The Application of APBL (Authentic Problem Based Learning) to Enhance Generic Entrepreneurial Competencies in a Basic Chemistry Course*. (Online) (<http://www.davidpublishing.com/download/id=6159>), diakses tanggal 20 agustus 20133
- [11]. Sugiyono (2010). Metode Penelitian Kuantitatif Kualitatif & RND. Bandung : Alfabeta
- [12]. Simpson, A.W.B., 1956, A History Of The Land Law , Second Edition, New York: Clarendon b Press,
- [13]. Westwood, P. (2008). *What teachers need to know about teaching methods*. Camberwell, Vic.: ACER Press.
- [14]. Yulianti, Lia (2012), Authentic Problem Based Learning untuk meningkatkan hasil Belajar fisika Siswa SMA. Makalah ,Seminar nasional MIPA dan Pembelajaran. Fakultas Matematika dan ilmu pengetahuan Alam Universitas Negeri Malang.