



Project-Based Assessment Blended Learning To Improve Students' Psychomotor Competence

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Abstract

This research and development aim to produce an appropriate blended learning-based assessment project that can improve student competence. Project assignment by utilizing various contemporary applications such as Tik Tok, Instagram, and Youtube as a medium for product promotion. The data were researched and developed using Research and Development methods, the research model used was adopted from Borg & Gall. The feasibility of the development product in the form of an instrument was validated by a validator of assessment experts, validators of material experts. Student competence is measured by cognitive and psychomotor aspects. Data analysis by percentage and paired sample T-test analysis. The results of expert validation were declared "Very Feasible" with a score of 86.4% (cognitive) and 88.2% (psychomotor). The results of material expert validation were 89% (cognitive) and 87.5% (psychomotor) with the "Very Feasible" category. The results of the large class trial resulted in a score of 86.7% for the teacher's response and 88% for the student's response to the assessment instrument product. The increase in student competence is measured through project assignments, where the results of the calculation of the paired sample T-test show that there is a difference in the average score before and after using the assessment instrument in either the cognitive or psychomotor domain.

Abstrak

Penelitian dan pengembangan ini bertujuan menghasilkan project based assessment blended learning yang layak dan dapat meningkatkan kompetensi siswa. Tugas proyek dengan memanfaatkan berbagai aplikasi kekinian seperti Tik Tok, Instagram, dan Youtube sebagai salah satu media untuk melakukan promosi produk. Data yang diteliti dan dikembangkan menggunakan metode Penelitian dan Pengembangan, model penelitian yang digunakan mengadopsi dari Borg & Gall. Kelayakan produk pengembangan berupa instrumen divalidasi oleh validator ahli penilaian, validator ahli materi. Kompetensi siswa diukur aspek kognitif dan psikomotor. Analisis data dengan persentase dan analisis paired sample T-test. Hasil validasi ahli dinyatakan "Sangat Layak" dengan skor 86,4% (kognitif) dan 88,2 % (psikomotor). Hasil validasi ahli materi 89% (kognitif) dan 87,5% (psikomotor) dengan kategori "Sangat Layak". Hasil dari uji coba kelas besar menghasilkan skor 86,7% untuk respon guru dan 88% untuk respon siswa terhadap produk instrumen penilaian. Peningkatan kompetensi siswa diukur melalui tugas-tugas proyek, yang mana hasil dari perhitungan paired sample T test menunjukkan bahwa terdapat perbedaan nilai rata-rata sebelum dan sesudah menggunakan instrumen penilaian baik dalam ranah kognitif atau psikomotor.

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INTRODUCTION

The development of knowledge and technology as well as the challenges of the future that are getting bigger are some of the foundations for developing curriculum in Indonesia to improve the quality of education and prepare the next generation of the nation in the future. The revised 2013 curriculum is the curriculum currently applied in Indonesia. Based on Regulation of the Minister Of Education And Culture No. 34 of 2018 concerning National Standards for Vocational Secondary Education/Vocational Madrasah Aliyah, educational assessment standards are one of the elements that have changed due to the implementation of the revised 2013 curriculum.

Assessment can be defined as an activity designed to use a tool that can make it easier for teachers to determine the material that has been understood by students and determine the level of success in cognitive, affective, and psychomotor aspects (Wanner & Palmer, 2015; Mulongo & Amod, 2017), Kippers et al.(2018). Based on Regulation of the Minister Of Education And Culture No. 23 of 2016 concerning Education Assessment Standards, in Chapter IV article 5 states that the principles of assessment of learning outcomes include several things, including (1) valid, (2) objective, (3) fair, (4) integrated, (5) open, (6) comprehensive and continuous, (7) systematic, (8) based on criteria, and (9) accountable.

Meanwhile, according to Haryati (2007), the project-based assessment provides opportunities for students to fully express the competencies they have mastered and produce accountable mastery of competencies. With the preparation of a good assessment instrument, the teacher will find it easier to find out student understanding so that it can help in achieving the competencies to be achieved. According to Ansori (2017), four things need to be considered in conducting project assessments, that are (1) management, (2) relevance, (3) originality, (4) innovation and creativity.

Vocational High School is a secondary education level that prepares students to enter the industrial world and develop their competencies based on selected skills according to the demands of the world of work (Emir (2013), Rahman et al. (2014), Anderson Girard et al. (2018), Korber and Oesch (2019). During the Covid-19 pandemic, learning activities must continue to be carried out by educational institutions so that the objectives of learning can be achieved, especially in assessing students' psychomotor aspects. According to Dave (Majid, 2014) that psychomotor learning outcomes can be divided into five, namely (1) imitation, (2) manipulation, (3) precision, (4) articulation, and (5) naturalization.

During the COVID-19 pandemic, almost all schools in Indonesia implemented blended learning. According to Sari (2019) blended learning is a learning model that combines face-to-face learning activities in class with online learning activities, which use certain learning media to achieve learning objectives. According to the results of research from Purnomo (2016) that blended learning has characteristics that are open, flexible, and can occur anywhere. Thus, it can help students to develop themselves in the learning process, according to the learning style of each student, Watson (2008).

Project-based assessment on marketing subjects in certain Basic Competencies that have practical characteristics (psychomotor domain) requires an appropriate, interesting, contextual project to improve student competence. Properly made projects must also be equipped with operational and measurable assessment instruments so that the projects completed by students can reflect the true competencies of students. The reflection of the actual achievement of student competencies can be seen from the determination of predetermined competency goals. So that it becomes an interrelated and related thing in the context of achieving a student's competence which will later contribute to preparing students to be ready to enter the business world and the industrial world. Because the project-based assessment will train students' skills in thinking and being critical, creative, and productive. This becomes important to pay attention to in learning in Vocational High Schools that are relevant to the goals and profiles of Vocational High Schools graduates.

Based on observation activities and interviews conducted with Marketing subject teachers, it was found that in the new normal era, the assessment activities carried out to measure students' current abilities were still not optimal, especially in measuring psychomotor abilities. Because, during the Covid-19 period, the assessment was more focused on cognitive assessment, by giving several assignments or practice questions in the form of multiple-choice and essays using the google

form. While the psychomotor assessment of students is carried out using aspects of assessment that are still general such as aspects of confidence, appearance, intonation and clarity of voice, completeness of explanations about the product. With project-based assessments, it produces values that are objective, valid and follow students' abilities, while conventional assessments are used to measure students' understanding.

Student assessment activities not only aim to measure understanding but can also help to improve competence during learning activities. The level of competence is measured after students finish doing all the tasks that have been adjusted to the learning objectives. According to Sudyanto (2015), an effective assessment model for measuring the level of student competence is using the AAL (Assessment As Learning) model. Based on this background, it is necessary to develop a measurable assessment instrument including cognitive and psychomotor assessments. Assessment with operational and measurable instruments will reflect the competencies possessed by students

The purpose of the research and development carried out is to produce project-based assessment blended learning in Marketing subjects and to improve the competence of class X students at SMK Negeri 1 Nglegok. The novelty of the research that was conducted is projecting assignments are compiled on Project Based Assessment Blended Learning products using various contemporary applications, that are Tik Tok, Youtube and Instagram. These applications include digital marketing which is useful for promoting products to be known by the wider community. The results of project assignments carried out by students are videos that will be posted on the Tik Tok and Youtube applications as well as product design projects posted through the Instagram application. In addition, the assessment rubric is prepared in detail and adapted to the given project assignments so that it will produce valid scores and according to students' abilities.

METHOD

The research was conducted, including R & D research, which aims to produce a project-based assessment blended learning product in Marketing Subjects. According to Sukmadinata (2013), research and development is a stage that aims to develop a new product or improve existing products and can be responsibilities.

The subjects of this research were students of class X SMK Negeri Nglegok, Department of Online Business and Marketing, totalling 15 students for the limited trial and 36 students for the large class trial. The basic competencies that will be developed for the assessment instrument are product development and product promotion. The data that was researched and developed was by using a questionnaire. The prepared questionnaire was used to carry out expert validation and limited trials. There are four types of questionnaires used for data collection, including: (1) expert assessment validation, (2) material expert validation, (3) teacher responses to project-based psychomotor assessment instruments, and (4) student readability (understanding) in working on a project task.

Research and development method, the researcher adopted the Research & Development (R&D) model of Borg and Gall (2003). The steps are (1) preliminary study, (2) planning, (3) product draft development, (4) content validation, (5) limited trial, (6) design revision, (7) product revision, (8) large class trial, (9) final product revision, (10) project-based assessment final product. The various stages can be seen in Figure 1 as follows:

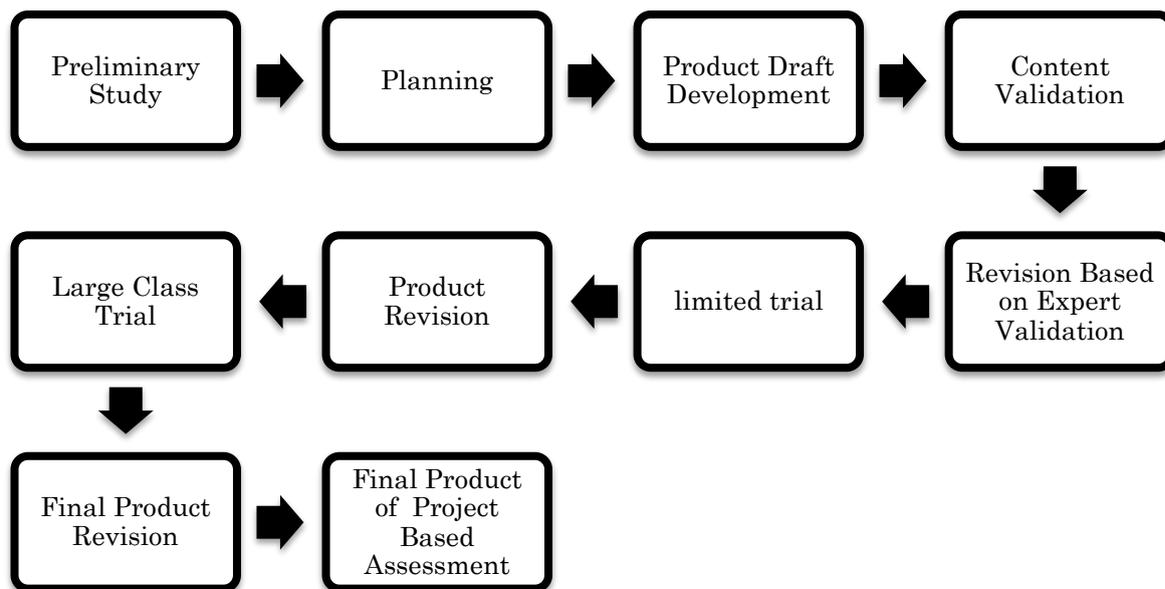


Figure 1. Steps for Research and Development of Project-Based Psychomotor Assessment Instruments

(Source: Borg and Gall (2003), modified by the researcher)

Preliminary studies were conducted to find initial data before the product was developed to find the advantages and limitations of the product to be developed so that the resulting product can be applied properly. The development of a product draft includes the preparation of a questionnaire which was used as an instrument to evaluate cognitive and psychomotor aspects by teachers and students. Cognitive assessment instruments in the form of multiple-choice questions and descriptions must be done by students following predetermined instructions. Meanwhile, the psychomotor assessment instrument was in the form of a project-based assessment of product development and product promotion.

Expert validation was an activity carried out to determine the feasibility of the assessment instrument and the material of the resulting product. The validators were 3 validators with details of two lecturers from the Faculty of Economics Universitas Negeri Malang and one teacher in Marketing at SMK Negeri 1 Nglegok. Expert validators will be given a questionnaire to determine the feasibility of the product being developed. The data generated were in the form of quantitative data and qualitative data, qualitative data can be used as material in making product improvements that refer to the advice of expert validators.

In the next stage, before conducting a limited trial, it was necessary to test the differentiating power of questions and the level of difficulty of each item given to 30 students of class X Department of Online Business and Marketing. The level of difficulty was carried out to find out the problems faced in the developed assessment instrument.

Below is the formula used to test the level of difficulty of the questions in the form of multiple-choice questions (Arikunto, 2015)

$$P = \frac{B}{JS}$$

Explanation:

B : The number of students who answered the question correctly

JS : The number of students

The results of the calculations can be adjusted to the assessment criteria in table 1 below:

Table 1. Range of P Values (Difficulty Level)

Value Range	Difficulty Level
0.71–1.00	Easy
0.31–0.69	Medium
0.0–0.30	Difficult

(Source: Arikunto, 2015)

Next, the differentiating power test is used to determine students with high abilities and students with low abilities. The formula used is:

$$D = \frac{B_A}{J_A} - \frac{B_B}{J_B} = P_A - P_B$$

Explanation:

- D : Different power of questions
- B_A : The number of students in the upper group who answered the questions correctly
- B_B : The number of students in the lower group who answered the questions correctly
- J_A : Number of students in the upper group
- J_B : Number of lower group students
- P_A : Upper-class difficulty
- P_B : Lower class difficulty

Based on the calculation results, it can be adjusted to the assessment criteria in table 2 below:

Table 2. Range of Different Power Values

Value Range	Distinguishing Power
0.71–1.00	Very good
0.41–0.70	Good
0.21–0.40	Enough
0.0–0.20	Bad
Negative (-)	Poor (needs to be replaced)

(Source: Arikunto, 2015)

The analytical technique used to process quantitative data from expert validation and product testing can be calculated using the following formula:

$$V = \frac{Tse}{Tsh} \times 100\%$$

Explanation:

- V : validation percentage
- Tse : total empirical score
- Tsh : expected total score

The feasible criteria from the results of the product validity analysis are presented in table 3 as follows:

Table 3. Feasible Criteria

Feasible Criteria (Percentage)	Criteria
81%-100%	Very feasible to use without making revisions
61%-80%	Feasible for using with minor revision
41%-60%	Not feasible but can be used after major revisions
21%-40%	Not feasible for using
0%-20%	Very unfit for use

(Source: Akbar (2017:82))

Analysis of the data used to determine the level of psychomotor competence of students after using project-based assessment was by using a paired sample t-test, which was analyzed using the IBM Statistics 26 application. According to Sunarti & Rahmawati (2014:121). Paired sample T-Test was a different test with two paired samples. Paired samples were with the same subject but get different treatment.

RESULTS AND DISCUSSION

The results of the Validation Expert Assessment

Expert validation of project-based assessment product assessment by lecturers from the Department of Management Universitas Negeri Malang which includes aspects of display design, content feasibility, and language. Quantitative data from expert assessment validation results can be seen in table 4 as follows:

Table 4. Quantitative Data Validation Expert Assessment Results

No	Competence	Validation Result	Criteria
1	Cognitive	86.4 %	Very Feasible
2	Psychomotor	88.2 %	Very Feasible

(Source: Processed by researchers, 2021)

Based on table 4 above, it is known that the results of the validation of project-based assessment products on Marketing subjects by lecturers resulted in the validation of cognitive aspects of 86.4% and psychomotor by 88.2% with the "Very Feasible" category. The results of qualitative data containing suggestions and comments from the validator as material for making product improvements can be seen in Table 5 below:

Table 5. Qualitative Data Validation Expert Assessment Results

No	Validator	Comments and Suggestions
1	Validator 1	<ul style="list-style-type: none"> • Need to add the total score for each table on the observation sheet • Medium and high levels of difficulty in cognitive assessment need to be reviewed • The calculation of the final score between multiple-choice questions and essays need more explanation • Assessment indicators on cognitive aspects need to be reviewed

(Source: Processed by researchers, 2021)

Results from Material Expert Validation

The material expert validation was carried out by two validators from the lecturers of the Management Department, Universitas Negeri Malang and the Marketing class teacher of class X SMK Negeri 1 Nglegok, the aspects assessed were the feasibility of the material and language. The results of material expert validation in the form of quantitative data can be seen in table 6 below:

Table 6. Quantitative Data of Material Expert Validation Results

No	Competence	Validation Result	Criteria
1	Cognitive	89%	Very Feasible
2	Psychomotor	87.5%	Very Feasible

(Source: Processed by researchers, 2021)

Based on table 6 above, it can be seen that the results of the expert validation of project-based assessment materials on Marketing subjects by lecturers and teachers resulted in the validation of cognitive aspects of 89% and psychomotor by 87.5% with the "Very Feasible" category. Qualitative data containing suggestions and comments from validators as material for product improvement

can be seen in table 7 below:

Table 7. Qualitative Data of Material Expert Validation Results

No	Validator	Comments and Suggestions
1	Validator 1	<ul style="list-style-type: none"> The use of punctuation must be considered again Pay attention to conjunctions, there are still many connecting words that use uppercase letters
2	Validator 2	<ul style="list-style-type: none"> The language used is easy to understand Add some pictures to make it easier for students to understand the material Very good and creative for learning, can foster children's interest in learning

(Source: Processed by researchers, 2021)

From the results of the validation that have been done, it can be used as a reference to improve project-based assessment products in the Marketing subject of the Online Business and Marketing Department before conducting a limited trial on 10th-grade students at SMK Negeri 1 Nglegok.

Results From Limited Trial

The data obtained from the results of the limited trial came from the test subjects (users). Users of the project-based assessment product are Marketing teachers and 15 students in the 10th grade of the Online Business and Marketing Department. The data from the teacher is used to determine the teacher's response to the project-based assessment product. Meanwhile, data from students is used to determine the readability (understanding) of students in working on project assignments that have been developed.

Teacher and student responses to project-based assessment products include the content presented and language. The first step that students must take is to do the tasks contained in the project-based assessment product covering cognitive and psychomotor aspects. Quantitative data from limited trial results can be seen in table 8 below:

Table 8. Quantitative Data of Limited Trial Results

No	Indicator Assessment	V	Criteria
1	Average teacher response scores for project-based assessment products	83.5%	Very Feasible
2	The average score of student responses to project-based assessment products	84.76%	-

(Source: Processed by researchers, 2021)

Qualitative data of limited trial results from teacher responses to project-based assessment products, That is Marketing subject teachers provide suggestions so that the steps for working on each project task are arranged in detail and clearly so that students are easier to understand project assignments.

Results From Large Class Trials

After revising the product, the next step is to conduct a large class trial for the Marketing teacher and 36 students in the 10th grade of the Online Business and Marketing Department. The data from the teacher is used to determine the teacher's response to the project-based assessment product. Meanwhile, data from students is used to determine readability (understanding) in working on project assignments that have been developed.

Teacher and student responses to project-based assessment products include the content presented and language. The first step that students must take is to do the tasks contained in the project-based assessment product covering cognitive and psychomotor aspects. Quantitative data from limited trial results can be seen in Table 9 below:

Table 9. Quantitative Data on Large Class Trial Results

No	Indicator Assessment	V	Criteria
1	Average teacher response scores for project-based assessment products	86.7%	Very Feasible
2	The average score of student responses to project-based assessment products	88%	-

(Source: Processed by researchers, 2021)

Qualitative data for large class trials from teacher responses to project-based assessment products, namely Marketing subject teachers responded that the products developed were good and could be used in conducting assessments on Marketing subjects.

Differential Power Test Results and Level of Problem Difficulty

After testing the differentiating power and level of difficulty of 40 multiple choice questions, it can be seen based on the results of the answer sheets for class 10 BDP 1 students, as follows:

Table 10. Classification of Differential Power Test Results

Level of Test of Differential Power of Questions	Number of Questions	Total
Good	1,2,4,5,7,8,9,10,11,12,13,15,16,19,22,23,24,25,27,30,32,35,36,38,40	25
Enough	6,14,17,26,28,31,33,39	8
Bad	3,18,20,21,29,34,37	7

(Source: Processed by researchers, 2021)

Based on the results of calculations for the level of difficulty of each item, it can be seen in table 11 as follows:

Table 11. Classification of Test Results Level of Problem Difficulty

Question Difficulty Level	Number of Questions	Total
Easy	2,3,5,9,18,26,27,35,38,39	10
Medium	1,4,6,8,10,12,14,15,16,17,19,24,25,30,31,32,34,36,37,40	20
Hard	7,11,13,20,21,22,23, 28,29,33	10

(Source: Processed by researchers, 2021)

Student Competency Results

To measure students' cognitive, an assessment instrument is used in the form of multiple-choice questions and essays, which are conducted by the instructions for questions where each correct answer will get a score of 1 and if an incorrect answer will get a score of 0.

Meanwhile, to measure students' psychomotor competence, the assessment instrument used is in the form of project-based student worksheets on product development and sales promotion which is equipped with an assessment rubric and project assessment criteria, including aspects of work preparation, process, work results and time. The psychomotor value is calculated by dividing the acquisition score by the maximum score then multiplied by the weight of each assessment criterion.

Student competencies were analyzed after students worked on cognitive and psychomotor tasks following the developed project-based assessment covering cognitive and psychomotor aspects. The number and average scores obtained by 36 students of class X Online Business and Marketing after working on assignments based on the assessment instruments compiled can be presented as follows:

Table 12. Results of Paired Samples Statistics Analysis of Cognitive Aspect Learning Outcomes

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Cognitive Score Before Using project based assessment	75.47	36	2.478	0.413
	Cognitive Score After Using project based assessment	84.97	36	2.311	0.385

(Source: Processed by researchers, 2021)

From the results of the analysis above, it can be seen that the average value of cognitive aspects before using the instrument is 75.47 and the average value of cognitive aspects after using the instrument is 84.97. From these results, it can be concluded that there is a difference in the average value before and after using the project-based assessment that has been produced.

Table 13. Results of Paired Samples Statistics Analysis of Cognitive Aspect Learning Outcomes

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Psychomotor Score Before Using Project Based Assessment	71.64	36	1.988	0.331
	Psychomotor Score After Using project based assessment	84.03	36	1.934	0.322

(Source: Processed by researchers, 2021)

From the results of the analysis above, it can be seen that the average value of the psychomotor aspect before using the instrument was 71.64 and the average value of the psychomotor aspect after using the instrument was 84.03. From these results, it can be concluded that there is a difference in the average value before and after using the project-based psychomotor assessment instrument that has been produced.

Produce an Appropriate Project Based Assessment

The research that has been conducted resulted in a project-based assessment product on the subject of Marketing. The assessment instrument is a very important aspect to measure students' abilities after participating in learning activities. Project tasks developed include: (1) analyzing a food product to determine the product development strategy used, (2) innovating the development of existing products, (3) developing new products by looking at existing opportunities, (4) making product promotion designs posted through the Instagram application, (5) making product promotion videos using personal selling techniques uploaded to Youtube, (6) promoting products using the Tik Tok application. The project assignments that are prepared refer to the psychomotor competencies of students in BC 4.6 conducting product development and 4.10 conducting product promotion.

Project-Based Assessment developed by researchers as an assessment instrument on Marketing subjects that have met the feasibility criteria. Feasibility criteria were obtained from the validation of assessment experts and material experts as well as teacher and student responses to project-based assessment products. Assessment instruments are an alternative for teachers to develop evaluation tools that can be used to measure valid and appropriate student competencies during the learning process. This is in line with the results of research conducted by Pasaribu & Saparini (2016); Dewi & Rahayu (2018); Rahayu (2020) that the project-based psychomotor assessment instrument is valid and feasible to be used to assess the psychomotor aspects of students.

Project assignments were arranged by utilizing several contemporary and millennial applications such as Tik Tok, Instagram, and Youtube, where the application is one of the media of digital marketing which is currently quite effective for promoting products to consumers. In addition, the project assignments that were prepared also train students' thinking to see existing business opportunities through project assignments, that is making business development plans.

The advantage of the assessment instrument developed is that it can be applied in blended

learning. The developed Project Based Assessment can be applied in online or face-to-face learning at school, especially in the new normal period the assessment instrument developed can be used as an alternative to assess project-based psychomotor aspects. This is in line with research conducted by Purnomo (2016) that blended learning has characteristics that are open, flexible, and can occur anywhere. In addition, the material developed on the assessment instrument is equipped with interesting pictures and tables so that students will find it easier to understand the material that has been delivered.

The results of working on project assignments by students were in the form of videos and product designs. Video, which contains short interesting videos to promote products uploaded to the Tik Tok application, and short videos about personal selling uploaded to YouTube. In addition, the results of the project are also in the form of product designs which are then uploaded to the Instagram application. Thus, students can develop products and the ability to conduct sales promotions by utilizing various contemporary applications such as TikTok, Instagram, and YouTube.

The developed project-based assessment has met the feasibility criteria based on the results of expert validation and limited trials. The percentage value shows the "Very Feasible" criteria. The results of developing appropriate assessment instruments can provide benefits for teachers, which makes it easier for teachers to conduct assessments on psychomotor and cognitive aspects, especially in blended learning in the new normal era. Because the developed tasks can be applied in online and face-to-face learning. In addition, the teacher will also find it easier to conduct learning activities because the prepared material was equipped with various images, making it easier for students to understand the material. This is in line with the results of research conducted by Afrida, et al (2016); Sukmasari & Rosana (2017); Rahayu & Munadhiroh (2020); Rusdiyana & Joharudin (2020) that the project-based assessment instrument is valid and feasible to use to measure the psychomotor aspects of students.

Normal Project Based Assessment Can Improve Student Competence in Blended Learning in the New Normal Era

This research and development were to produce an assessment instrument that can improve student competence after working on the tasks contained in the project-based assessment product about product development and sales promotion developed in the cognitive and psychomotor domains. This was supported by several research results which state that assessment instruments as learning models can improve student competence in affective, cognitive, and psychomotor aspects (Farrell (2020), Lee et al. (2019), Fetherston & Batt (2019).

According to R. Arifin, et al (2018), five components of the assessment model must conduct, including (1) learning objectives, indicators and criteria for success, (2) structured learning tasks, (3) self-assessment, (4) peer assessment (between friends), (5) feedback to improve learning. Providing feedback in conducting project-based assessments has a positive impact on learning activities and also develops students' thinking habits (Christensen & Lynch, 2020; Yu & Wu, 2020; Meir et al., 2019; Steen-Utheim & Wittek, 2017).

To find out the increase in student competence before and after using the assessment instrument, an analysis was conducted using a paired sample t-test. From the results of the analysis of paired samples statistics, it shows that the average cognitive value before using is 75.47 and after using the assessment instrument is 84.97. So it can be concluded that there was an increase in the average score of students in the cognitive domain after using the project-based assessment product. Meanwhile, the results of the analysis of paired samples statistics in the psychomotor domain show that the average psychomotor score before using the instrument is 71.64 and after using the assessment instrument is 84.03. It can be concluded that there was an increase in the average score of students in the psychomotor domain after using the project product-based assessment. So that, it can be concluded that the project-based assessment product developed can improve students' psychomotor and cognitive competencies, especially in Marketing subjects in blended learning in the new normal era. The results of this study are relevant to research conducted by Rourke (2020); Brown (2019); Firdausa & Istiyono (2019); Saputra et al., (2018), Sylvia et al., (2018), Arini et al., (2017), show that the Psychomotor Aspect Assessment Instrument is feasible and can improve

student competence in practicum activities in certain subjects.

Competencies achieved by students after working on project assignments can do product development and conducted sales promotions. Through basic product development competencies, students can innovate and be creative to carry out product development by looking at existing opportunities. Meanwhile, through the basic competencies of sales promotion, the competencies that can be achieved are that students can do sales promotions in the form of attractive and creative videos which are then posted through the Tik Tok and Youtube applications, and to produce interesting videos, students are required to be creative and innovative so that the promotions that conducted which interest for public consumption. In addition to having the ability to make promotions in the form of videos, students also can create promotional designs using the Canva application which will then be posted via the Instagram application. So, after working on project assignments, students have competence in product development and competence in conducting sales promotions by utilizing various contemporary applications such as Tik Tok, Instagram, and Youtube which are quite effective as media for promotion.

Psychomotor competence achieved is the ability of students in product development and sales promotion. While competence in the cognitive aspect, students understand more about the theory of product development and sales promotion. This is in line with research conducted by Safaroh & Dewi (2017) that based on the reliability test the type of project appraisal instrument has the highest value of 0.870 with the "very high" category compared to other types of instruments. And student learning outcomes measured using authentic project-based assessments that were developed showed that 100% of students were complete in psychomotor competence.

CONCLUSION AND SUGGESTION

Conclusion

This research produces a project-based assessment that was valid and feasible to use and can improve student competence in blended learning in the new normal era. In addition, the assessment instrument developed covers the cognitive and psychomotor domains. Project assignments are arranged by utilizing several contemporary applications such as Tik Tok, Instagram, and Youtube which are digital marketing media to promote products. With this assessment instrument, it is hoped that it can help marketing subject teachers to produce valid and reliable student scores according to students' abilities.

Suggestion

Research and development need to conduct with a large number of trials and other vocational schools with similar study programs to see the level of effectiveness of the products that have been produced by comparing the results of the assessment using the product and the results of the assessment not using the product with a sample (students).) which is different in some vocational schools. Develop millennial project-based tasks complete with project-based and HOTS-oriented instruments so that this will train students to think critically and have higher skill competencies.

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