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Blended learning model towards vocational students' learning outcomes: A scoping review

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ABSTRACT

The learning characteristic in the 21st century is the availability of information anywhere and anytime. Blended learning (BL) became the most widely used learning strategy in vocational education. However, the problem is the effectiveness of BL on student outcomes. This scoping review provides an overview of the implementation of the BL model on vocational students. The research questions in this review were: i) What type of BL was taken?; ii) How did the BL model works?; and iii) What was improved in student learning outcomes? The research method adopted the scoping review from Arksey & Markey. From the beginning, the research article data was taken from the Scopus database. The article selection using the PRISMA method obtained 32 articles from 4,298 articles. The results of the review showed that there were three types of BL models. The three types of BL were: i) The flipped classroom model; ii) The station-rotation model; and iii) The self-blend model. BL syntax that teachers most favored in nine ways, but mainly with the syntax: "Face-to-face (F2F) finished, after that online learning for enrichment". Meanwhile, most of the articles improved learning outcomes in the cognitive domain.

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1. INTRODUCTION

The COVID-19 pandemic in all countries has a severe impact on all sectors of life. One of them is education. The pandemic requires learning to change from face-to-face to online learning to stop the spread of this virus. However, in the implementation of distance learning, many students are constrained by internal and external learning factors, so good self-regulation is needed to deal with these problems. Distance learning has several weaknesses: i) Students feel tired by more tasks than usual learning at school; ii) The learning material is only given and not explained so that students find it challenging to understand; iii) Students who do not understand the material and assignments cannot ask questions directly at that time; iv) If it is explained directly some students understand better; v) Because you have to buy internet quota, more spending is more wasteful; and iv) Constrained by poor internet connection [1].

Vocational education also feels the impact of the pandemic. Vocational education is one type of education that prepares graduates to be ready to work. Vocational education is specially prepared to make

someone work professionally or improve skills in carrying out work [2]. Vocational education then develops to prepare a profession. Pavlova described vocational education as a unique training preparation produced based on the experience of teachers in developing an understanding of a particular industry, comparing specific skills and the ins and outs of companies [3]. Meanwhile, vocational education is proposed to develop workers' skills to enter the industry [4]. Based on this understanding, vocational education needs face-to-face classes for drilling skills to support its competence. Skills can be obtained when dealing directly with the media or its tools. It is in contrast to education in the pandemic era, where there are face-to-face restrictions.

The problem faced in vocational education is the existence of a pandemic that hinders the learning process, so that the expected competence of students is not achieved. There needs to be a change in the learning system that can improve student's competence even in a pandemic. This condition makes educators need to design new methods to remain as effective as during ordinary learning. One model that can give opportunities for vocational students to practice face-to-face in laboratories or workshops is blended learning. Blended learning (BL) is a new method in the learning process that consists of online and face-to-face learning. BL model is a learning environment that combines face-to-face learning with technology-assisted learning [5]. Simplifies the definition of BL as combining face-to-face and online learning [6]. Meanwhile, BL is a form of learning using the internet using various applications by combining direct learning in class with online learning [7]. This strategy combines traditional learning with learning activities using computer media with tablets, smartphones, or other technology to be more attractive to students than just face-to-face learning or online learning [8]. Dziuban suggests BL as a learning format in the new normal [9].

From the analysis of the BL learning model, the proposed solution for vocational learning in the pandemic era is blended learning. Staker described some of BL models or types: i) The rotation model, in which students move between online learning and other modalities; ii) The flex model, in which students learn online learning according to an individually customized schedule, and face-to-face from the teacher; iii) The self-blend model, in which students take an additional online course for complementing their traditional learning; and iv) The enriched-virtual model, in which learning is online learning with occasional visits face-to-face tuition [10]. Meanwhile, Graham categorized them into three: i) Enabling blends, which focus on access and convenience, but the learning provides a different modality; ii) Enhancing blends, which seek to supplement face to face learning with online repository; and iii) Transformative blends, at changing pedagogy, which means the learning through technology [11]. The different types of blended learning for teachers or instructors depend on the goals and its challenges [7].

The implementation of this BL model is ultimately to obtain optimal vocational student learning outcomes during the pandemic. The learning outcomes are the success achieved by students, which can be manifested in the form of numbers [12]. The numerical and analytical assessment can indicate learning outcomes in three dimensions: cognitive, skill-based, and affective [13]–[15]. Meanwhile, Sudjana explained that the learning outcomes as a result of learning consist of: cognitive, affective, and psychomotor [16]. It can conclude that learning outcomes are changes in student behavior that occur after participating in learning. These changes include cognitive, affective, and psychomotor aspects.

On the other hand, various BL models increase learning motivation and achievement [17]. In addition, BL can help students bring innovative characters to lesson, create active learning activities, and produce flexible learning [18]. The advantage of BL can increase comfort in learning and grow better academic achievement. Based on these advantages, it is necessary to study the factors that make the success of BL implementation in the vocational education. This success is evidenced by the many research results that explain the influence of BL in supporting vocational student learning outcomes. This scoping review attempts to explain the three research questions: i) What are the types of BL models used in learning in vocational education; ii) How does BL work or syntax in the learning process in vocational education; and iii) What domains are improved by BL related to vocational student learning outcomes.

2. RESEARCH METHOD

This research used a scoping review. The scoping review is a strategy for mapping literature in a research area. Scoping review is an approach to review the literature that has five stages: i) Identification of research questions; ii) Identification of relevant research; iii) Study selection; iv) Charting of data; and v) Summary and report findings [19]. Scoping review involves searching the articles from electronic databases that the researcher uses a Scopus database search. Scopus is the largest abstract database and excerpt from peer-reviewed literature. To find research that discusses the effects of BL on vocational learning outcomes, the keywords were: blended learning, blended & vocational, blended & outcome, blended & achievement.

The data filtering techniques are used based on the inclusion and exclusion criteria. The inclusion criteria are used to select subjects that meet specific requirements for a study. Exclusion criteria are used to determine samples chosen by issuing samples that cannot be further processed technically. Both criteria will

be based on specific research questions to ensure consistency in decision-making. Therefore, the inclusion and exclusion criteria are determined, which can be seen in Table 1 to obtain relevant articles. Study selection in this research uses the PRISMA [20]. The steps for selecting articles are identification, screening, eligibility, and included.

The next stage is to record the articles obtained from searching the article database. Charting is a technique for synthesizing and interpreting data by sorting, mapping, and sorting material according to the main issues and themes. In this scoping review, information in grouping data, including: author, samples, blended learning type, how the blended learning works, and main learning outcomes.

This scoping review stage involves collecting, summarizing, and reporting the results. Scoping reviews attempt to provide an overview of all the material studied. In this case, how to answer the research question based on the data.

Table 1. Criteria for inclusion and exclusion

Criteria	Inclusion	Exclusion
Time	2019, 2020, 2021	Research beyond the specified date
Document type	Conference paper; Journal article	Conference, review, article in press, note, and book
Research focus	Research related to BL in vocational education, namely the BL types used, the learning methods applied, the implementation of BL in vocational education, and how the BL being used on the learning outcomes	Research that only addresses the using of BL but not in the context of vocational education Research that does not discuss the impact of BL on learning outcomes
Sampel	Subjects who use BL to improve vocational student learning outcomes	Subjects who did not use BL to improve vocational student learning outcomes

3. RESULTS AND DISCUSSION

The first process on PRISMA selection in this blended learning topic is article searching using keywords on the Scopus database, and it produces 4,298 items. The selection continued by screening at time of publication, the last three years from 2019 to 2021, and makes 1,453 documents. There are 11 similar pieces of literature, leaving 1,442 documents. Document selection continues on the type of document and the focus of the literature. In this process of filtering the types of documents, found 71 papers. Furthermore, it prioritizes the focus of the literature and excludes articles that do not meet these criteria. What is meant by the focus of the literature is a document that contains the words: achievements, performance in the abstract, title, or keywords. It found 1,423 articles. The remaining documents are 52 articles. Screening continues to the stage of selection one by one in detail. This screening found 16 articles only abstracts, so they were excluded from the study. There are 36 articles at this stage. The final selection stage is the selection of articles from the results proving that BL can improve the learning achievement of vocational students. The final result of this screening process is 32 articles. The process of article selection is represented in Figure 1.

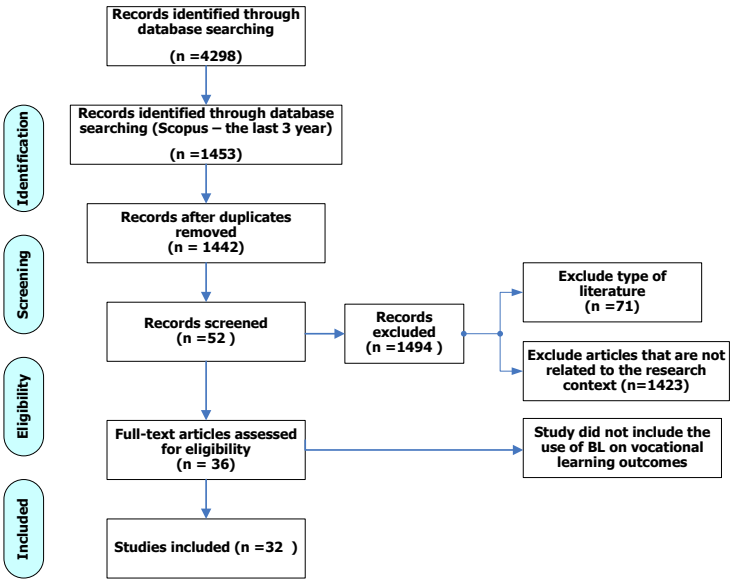

Figure 1. PRISMA flow diagram for article selection

Table 2 presents a summary of the study results of the reviewed articles. There are three research question that will be described in this study. They are: i) What are the types of BL models used in learning?; ii) How does BL work or syntax in the learning process?; and iii) What domains are improved by BL student learning outcomes?

Table 2. Description of the articles

Ref.	Sample	BL types	How BL works (syntax)	Learning outcomes
[21]	All students in the Computer Systems and Networks master's program	Blended-trajectory component	The trajectory contains combination of elements of face-to-face and online learning. The instructor can arrange the educational components and their optional implementation.	Knowledge
[22]	All an international master's program in Sweden	Flipped classroom	The flipped course was arranged around 11 active learning double classes. Five of this learning were completely flipped.	Students' academic: knowledge & skills
[23]	26 teachers and coaches	Blended prof. development (PD)	At the beginning, the participants met in the classroom and at the end of the four months. And the other, the participants regularly checked in with the instructor using synchronous and asynchronous communication tools.	Creative thinking
[24]	581 students	Station-rotation model	The lecture begins with peer collaboration. In class, students are often asked to do group quizzes. Outside of the class meeting time, an online discussion enables students to ask and answer questions.	Knowledge: problem solving and conceptual
[25]	217 second-year students	Station-rotation	There are two activities. First, traditional learning for studying the theory, and the second is lab activity.	Knowledge
[26]	~ 50 students	SPOC-based flipped classroom	The learning activities mainly preparation before class, discussion in class, and improvement after class	Knowledge
[27]	120 students	Flipped learning	Blended learning, which is the interaction between the teacher and students, is 80% in the LMS and 20% Face to Face (F2F)	Critical thinking skills
[28]	49 second-year students	Moodle Module-field trip	The first, learning uses the field trip model and next, six days of Moodle-enhanced self-study, students resolved a fill-in-the-blank assessment via Moodle.	Knowledge
[29]	56 respondents	Blended approach	The first, traditional lecture slides, and the second, online learning resources were developed for use in supplemental learning. All learning resources are available to students through the hosting platform.	Knowledge
[30]	20 students	Three-stage blended learning	In the first stage, an online tutorial gives theoretical information, which students study ahead of the programming group session. Then, in the second stage, teachers can advise students and answer specific questions. Afterward, students are provided with solution examples.	Programming skills and problem-solving strategies
[31]	4 classes	Online video and face-to-face (Flipped classroom)	The Lathe Machining lectures use the Blended Learning Approach by giving shop-talk and online demonstrations via video and traditional learning in the workshop.	Skills performance
[32]	295 students	Blended case-centered learning	The steps of blended case-centered learning: 1. The first, online learning and case study (43 h) 2. Next, Face to face learning in class (74 h) 3. Offline classroom (49 h) 4. Laboratory teaching (11 h) 5. Clinical practice (15 h)	Knowledge: critical thinking skills
[33]	40 students	Blended learning approach	It is implemented by providing skills-based assignments (e.g., homework, quizzes), interactive learning, and using learning tools such as mind maps.	HOTS
[34]	104 respondents	Blended emergent research training program	The blended emergent research training program consisted of four types: Online learning, Practice modules, Face-to-face for the seminars, and simulation project.	Research competence and critical thinking
[35]	49 students	Moodle-Socrates quiz-traditional teaching	The learning uses of Moodle tests and Socrative quizzes as a support for traditional theory teaching.	Knowledge
[36]	39 students	Video-based blended courses (flipped learning)	The learning conducted by the delivery of video-based course material that installed on Moodle LMS.	Knowledge
[37]	67 students	Video-based e-learning (flipped learning)	A number of educational videos related to the Course outcomes were selected to help students comprehend the basic concepts.	Knowledge

Table 2. Description of the articles (*continued*)

Ref.	Sample	BL types	How BL works (syntax)	Learning outcomes
[38]	94 students	Face to face and Web-based visual aids	The web-based visual aids help students to create a deeper comprehensive understanding of the course content. Assistances such as step-by-step guides, questions link to textbook content, and quick responses help students learn independently.	Knowledge
[39]	105 students	A flipped classroom approach	The step of the flipped classroom approach: i) Prepare: three hours of self-paced, self-directed pre-class activities; ii) Participate: interactive for two hours directed; iii) Recap: five hours of self-paced, post-class activities, and final assessment.	Knowledge and skills
[40]	79 students	Blended learning using reusable learning objects	Online learning used to supplement didactic traditional classroom teaching; Reusable learning objects can develop students learning achievement more efficient.	Knowledge
[41]	136 students	Lab-rotation	The model consists of the following: i) Lectures and Practice: theory and exercises on paper; ii) Laboratory Hands-On: hands-on practice in front of the computer	Knowledge: creative thinking; motor skills
[42]	120 students	Integrates video and face-to-face	The step of integrates and face-to-face: i) Program orientation was given; ii) Students watched video 1; iii) Students watched video 2; iv) Students were given a lecture using a printout	Knowledge
[43]	152 students	Edmodo-based e-learning	Students use an online-based environment (Edmodo E-learning). On the other hand, student study at the classroom.	Knowledge
[44]	177 students	Blended approach	The learning uses of Microsoft Teams as platform for engaging with formal content through synchronous sessions and asynchronous collaboration.	Knowledge and skills
[45]	954 students	Classroom and online peer-to-peer	The learning is done by classroom meeting and online discussion forum with unique identification number (ID).	Knowledge collaboration, communication
[46]	124 medical students	Blended-learning approach (classroom-based and video)	The two step this course: Six MI classroom-based lessons, and additional mandatory video learning material watched between the lessons.	Knowledge and skills
[47]	525 students	Blended learning approach	The three-step approach: i) Foundational Knowledge Instruction; ii) Practice and Application of Principles with Medication Calculations; iii) Contextual Practical Application. A three-step approach was completed into the first six weeks of the semester. During that time, the students carried out Blended learning activities (face-to-face and online).	Knowledge and skills
[48]	25 participant per group	Modular structure and contents of the blended learning	The course consists of a web-based learning between the two traditional training blocks.	Knowledge, attitude, skills
[49]	92 students	Blended learning based on the online platform	The learning uses information technology as the medium to combine classroom teaching and online teaching.	Knowledge
[50]	116 respondents	E-learning content and classroom learning	The e-learning content is used as supplementary class material in offline class in Korean vocational training institutions.	Knowledge and skills
[51]	2nd class SMKN 1 Bengkulu	Norman Vaughan and flipped classroom models	Blended learning based on handphones used in learning.	Knowledge
[52]	30 respondents	CoI-based blended learning	The online learning method allows students to explore the teacher's class. In the other hand, the teacher holds offline teaching.	Knowledge

3.1. What type of BL is used?

The review results show that the type of blended learning that is widely used to improve learning outcomes in vocational education is the flipped classroom. A complete summary of blended learning types in vocational education can be seen in Table 3. Based on the table, it can describe several findings on the use of BL types implemented in vocational schools. There are three types that are most widely used: i) The flipped classroom model, the proportion was 41%; ii) The station-rotation model, the proportion was 25%; and iii) The self-blend model, the proportion was 22%.

Table 3. Summary of blended learning types in the vocational education

No.	Blended learning types	Number of articles(percent)	References
1.	Rotation model:		
	Station-rotation model	8 (25%)	[21], [24], [25], [30], [34], [47], [48]
	Lab-rotation model	1 (3.1%)	[41]
	Flipped classroom model	13 (41%)	[22], [26], [27], [31], [32], [36], [37], [39], [42], [46], [49], [51], [52]
	Individual-rotation model	-	-
2.	Flex model	-	-
3.	Self-blend model	7 (22%)	[28], [29], [35], [38], [40], [45], [50]
4.	Enriched-virtual model	3 (9.4%)	[23], [33], [43]

3.1.1. Flipped classroom (FC)

Flipped classroom (FC) is one of the most preferred blended learning. Bergmann explained that the flipped classroom is an innovative pedagogical approach that focuses on active learning by reversing the classroom learning system that has been carried out by teachers [53]. Learning that traditionally takes place in the classroom now takes place outside the classroom and vice versa [54]. Media as the content of the learning process initially used video. But in its development, it began to be given a variety of learning material. Video is often used as input for self-study because it is accessible and allows students to pause and re-watch content as needed.

Some of the advantages of using flipped classroom: i) Flipping model answers the challenges of today's students; ii) Flipping helps students who have a lot of activities outside of school; iii) Flipping helps students who want to try to understand the learning material; iv) Flipping helps all students to be the best; v) Flipping allows educators to understand students better; vi) Flipping improves the interaction between students; and vii) Flipping educates parents [53]. With various advantages and conveniences possessed by this flipped classroom, it has an impact on optimizing the learning outcomes of vocational students [22], [26], [27], [31], [32], [36], [37], [39], [42], [46], [49], [51], [52].

3.1.2. Station-rotation

As explained by Staker, station-rotation is one of the models of BL, which is quite simple, so it is easy to implement. Students move between learning modalities which include one station of online learning. Other stations will consist of a few groups or the whole class. The learning object material includes tasks and assignments. Station-rotation is a simple model that allows instructors to have more time with students. This model enables students to move between learning stations inside or outside class. A few advantages of the station rotation model are: i) The classroom is divided into different stations for students to play between them; ii) The teacher sets a moving schedule and settles in one station to give direct instructions; iii) Each station consists of different activities. The students can do tasks at the station; iv) At least one station using an online learning approach [55]. Not only is the model simple, but its effectiveness in improving learning outcomes is excellent [21], [24], [25], [30], [34], [47], [48].

3.1.3. Self-blend

In this model, students take courses that all instructions are carried out online learning to complement their face-to-face courses [10]. Self-blend is popular learning for students and teachers for giving students the freedom to carry out instructions that occur in class. Classroom learning (F2F) combines online courses that help students hone their skills in digital literacy skills [56]. Students' opportunities to develop and explore knowledge widely through online learning have a significant impact on their learning outcomes [28], [29], [35], [38], [40], [45], [50].

3.2. How does the BL model work?

The review results show that the implementation of BL in vocational schools follows several work steps. However, here it appears that there are three work steps in the performance of BL in this vocational school. First, BL using the syntax: “F2F finished, then online for learning content enrichment”, the proportion was 21.88% of all reviewed articles. Second, BL with the syntax: “moving between modalities with teacher settings, the proportion was 18.75%. Finally, BL with the syntax: “video-based online tutor then F2F for activities”, the proportion was 15.66%. A complete summary of BL model works can be seen in Table 4. The work steps or BL syntax implemented in this article shows that three steps are considered the most effective in improving learning outcomes for vocational students. The use of various approaches because they have advantages in ease and implementation in learning.

Table 4. Summary of BL model works

No.	BL model works	Number (percent) of articles	References
1.	Moving between modalities with teacher settings	6 (18.75%)	[21], [24], [25], [32], [34], [47]
2.	F2F for Peer collaboration, then online for discussions and work assignments	3 (9.38%)	[33], [45], [49]
3.	Online for learning content then F2F for tutoring and problem solving	3 (9.38%)	[22], [30], [38]
4.	Online learning content between two F2F	1 (3.13%)	[48]
5.	F2F for moving between modalities	1 (3.13%)	[41]
6.	F2F finished, then online for learning content enrichment	7 (21.88%)	[27]–[29], [40], [50]–[52]
7.	F2F between two online learning	2 (6.25%)	[39], [45]
8.	Video-based online tutor then F2F for activities	5 (15.66%)	[31], [36], [37], [42], [46]
9.	Online base learning, F2F only at the beginning and the end	3 (9.38%)	[23], [26], [43], [44]

3.2.1. F2F finished, then online for learning content enrichment

This syntax is in BL with the flipped classroom model. In general, the activity consists of two sessions. The first is face-to-face-based classroom learning. Classroom learning, just like face-to-face classes in general, is filled with learning object material explanations and face-to-face activities. The description given by the teacher uses a variety of traditional teaching methods. It starts from expository, question and answer, demonstration, and several other ways [57]. The second is online learning for material enrichment after face-to-face learning. Giving material on the internet can be done in various ways. The first way is to provide material on an open website. Another way is to provide material in a learning management system (LMS) [58]. With this syntax, teachers benefit, especially in achieving student learning outcomes more efficiently. The teacher can do this by providing the previous material to students online to gain prior knowledge. The teacher's task becomes light of understanding students in achieving learning objectives.

3.2.2. Moving between modalities with teacher settings

BL uses this syntax on the rotation model type, especially the station-rotation model. Teachers can organize learning with several modalities, at least two. Online learning is one of them—the rotation of students in using modalities regulated by the teacher. So, the teacher has the authority to rotate students to each place to facilitate them in achieving the desired competencies. Usually, each modality has different and complementary learning objectives [55].

3.2.3. Video-based online tutor then F2F for activities

This type is widely implemented in the flipped classroom as well. Initially, the flipped classroom was used video as a learning enrichment material outside of the face-to-face classroom [53]. The teacher feels happy. By making videos or citing videos on the internet, the students is easier to understand the material provided by the teacher. However, this type of syntax is done with two sessions. Teachers conduct face-to-face sessions to provide explanations and provide various face-to-face learning activities. In the second session, the teacher invites students outside the classroom to study and analyze videos that have been uploaded online, or provide videos offline, to be studied at home. Based on Edgar Dale's cone, video is one of the implementations of audio-visual communication [59]. This form is more effective in understanding students than the verbal form.

3.3. What domains are improved by BL student learning outcomes?

Based on Table 5, the domain of learning outcomes that is very dominant is the cognitive domain which the proportion was 68.75% of all reviewed articles. Meanwhile, the second in two domains, cognitive-skill based, the proportion was 25%. On skill-based showed 3.125%. This result is the same as the article that prioritizes three domains (cognitive-skill-based-affective). The data shows that the teachers use BL model to know students learning outcome in their cognitive and skill-based. So, no articles prioritize only in affective domain. The summary of vocational students' learning outcomes domain in the BL can be seen in Table 5.

Table 5. Summary of vocational students' learning outcomes domain in the blended learning

No.	Main learning outcomes	Number (percent) of articles	References
1.	Cognitive	22 (68.75%)	[21], [23]–[29], [32]–[40], [42], [43], [45], [49], [51], [52]
2.	Skill-based	1 (3.125%)	[31]
3.	Affective	-	-
4.	Cognitive-skill based	8 (25%)	[22], [30], [39], [41], [44], [46], [47], [50]
5.	Cognitive-skill based-affective	1 (3.125%)	[52]

As explained earlier, Kreiger explained that learning outcomes can be measured in three domains, cognitive-skill-based-affective. Excellent quality learning must meet the complete measurement of learning outcomes. Evaluations carried out on a course must pay attention to the learning objectives that have been made previously. A professional teacher must formulate learning objectives for student behavior that can be measured and showing what the student can do after attending the lesson. This student behavior consists of three domains, including cognitive, skill-based, and affective [60]–[62].

The cognitive domain contains learning skills related to thinking processes. There are six levels of cognitive complexity: remembering, understanding, applying, analyzing, evaluating, and, creating. The affective domain involves our feelings, emotions, and attitudes. This domain is divided into five sub-domains, which include: receiving, responding, valuing, organization, and characterization. The psychomotor domain is physical functions reflexes interpretive actions and movements. This domain is categorized into five levels: imitation, manipulation, precision, articulation, and naturalization [63].

In many cases, the assessment of students' learning outcomes in the BL implementation is not based on objective standards, only on beliefs, knowledge, and experience. Many teachers feel that they are not sufficiently prepared to assess these three learning outcomes comprehensively. Teachers put many reasons regarding the implementation of assessment in the cognitive, affective, and psychomotor domains. It is well realized that balancing the assessment instruments in the three learning domains is not easy.

Based on the description of the review, the results of this study are the BL mapping applied by vocational school teachers in learning. There are four types of BL used and nine ways of working (syntax). The most dominantly used by vocational school teachers is the flipped classroom type with the following working method: "F2F finished, then do the online for learning content enrichment."

4. CONCLUSION

This review synthesizes various variations of BL implementation for vocational student learning outcomes. It highlights the need to use three types of bl model. The three types of BL are: i) The flipped classroom model; ii) The station-rotation model; and iii) The self-blend model. These three types of BL are most widely used in vocational education. Some of the reasons why this type of BL is chosen by many teachers in learning in vocational education to obtain optimal learning outcomes are: i) Teachers are easy to apply it; ii) Students are easy to understand the material; and iii) The material is easy to prepare.

While the BL syntax that the teacher most favored is: F2F finished, then online for learning content enrichment. In this way, teachers can organize learning in class and can also provide enrichment material online. The review results also synthesize that most of the articles emphasize the learning outcomes of vocational students in their cognitive domain. Suggestions for the review results are to pay more attention to how to measure learning outcomes in three domains (cognitive, skill-based, affective) so that the competence of vocational students is better and can compete in the job market.

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