



Differentiated Learning: The Role of Gallery Walk and Students' 21st Century Competence

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Abstract

This research aims to improve students' 21st-century competencies. Differentiated learning with the gallery walk method is expected to provide learning competencies evenly and fairly. The development of Bruce Joyce's learning model, which actualizes individual abilities and differences, is the basis for the study of learning differentiation development in this study. Quasi-experimental quantitative research involves a control class with normal learning and an experimental class with the application of the gallery walk method and differentiated learning. Participants of this study consist of 60 students at Avicenna Jagakarsa High School - South Jakarta, Indonesia. A differentiated learning model using the Gallery walk method was conducted in two classes, then measured its effectiveness. The results of this study found that all students were able to take initiative, be active and build new knowledge and experiences, increase collaboration in learning groups, think openly and accept other people's thoughts, and foster leadership. In the material aspect, students can analyze learning questions contextually and challenge them according to 21st-century learning competencies. For future researchers to be able to research learning differentiation in other learning materials as well as in different competencies.

How to Cite

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INTRODUCTION

The rapid development of education encourages learning innovation by teachers in educational units by implementing an effective curriculum. Bruce Joyce in "Models of Teaching" states that appropriate learning methods can achieve learning objectives effectively and efficiently (Joyce & Weil, 2009). Considerations for the application of the method include the learning objectives to be achieved, learning materials and resources student abilities and learning facilities, and learning outcome (McKimm & Swanwick, 2009; Acito, 2002; Ulfa & Saifuddin, 2018; Munawaroh, 2017; Fatkhurrohman et al., 2018; Wahab & Nuraeni, 2020), also time and class groups.

The "Merdeka Belajar" curriculum provides a new direction for learning innovation for students and teachers. As a maximum, all schools carry out the merdeka curriculum as a development from the previous curriculum. The curriculum is free from the pressure that learning must be the learner's responsibility (Olusegun, 2015). The main goal in learning is to achieve student competence, this requires an effective learning strategy. This requires teachers to apply constructivist learning where students are able to independently build knowledge and experience through active learning (Mohammed et al., 2020; Aminah & Asl, 2015) to build learning by recognizing every potential, character, need, and uniqueness of students. Thus, there is a need to develop learning methods in these activities to improve student competency in problem-based learning (Argaw et al., 2017), high-order thinking skills (Saptono et al., 2020), and critical thinking skills (Changwong et al., 2018; Barbour, 2016). Students are able to build new knowledge from learning problems, criticize and provide solutions to learning. The ability to analyze, construct, evaluate and create new models is part of high-level thinking skills.

The goals of 21st century learning competencies include Critical Thinking, Creative Thinking, Collaboration, and Communication (Casselden & Pears, 2020). Learners are

grouped based on developmental phases, where each phase has learning abilities that must be mastered. The learning process is structured to achieve learning objectives and adapted to the potential, characteristics, and needs of students so that learning is required to be differentiated in terms of process, content, and product from the process to being evaluated in learning (Zhou & Brown, 2017). In this differentiation of learning, the teacher facilitates students learning according to their potential and needs. High school economics learning outcomes identify economic problems and explain their impact. The concepts that students are expected to understand in this phase include understanding the concept of employment in the context of identifying various response and remuneration problems as well as solutions to overcome them.

Learning materials about employment provide information about the importance of aspects of students' future human resources (Saniuk et al., 2021; Görmus, 2018) and provide 21st-century competency experience (Kupers et al., 2019) such as analyzing the impact of unemployment, digital entrepreneurial opportunities for millennial students, and even analyzing business opportunities creative. The digital era demands changes in human resource competency needs (Shahroom & Hussin, 2018), which lead to actions, new skills, and even challenges for education to find effective learning in middle and high school broadcasts. This educational megatrend requires teacher innovation (Choudaha, 2016) in delivering subject matter so that students know the importance of work, response, and what competencies are needed in the future.

Various methods and media are implemented in learning, but effective learning on differentiated learning has not been found (Smale-Jacobse et al., 2019; Bondie et al., 2019). The impact of learning in the gallery walk is different, such as knowledge and understanding (Knight et al., 2020; Jonassen & Carr, 2020), but the implementation of differentiated learning with the gallery walk method has never been studied, especially for high

school students in the "merdeka curriculum". Differentiated learning is student-centered learning that suits the characteristics and needs of each student (Oco, 2021; Mulyawati et al., 2022). It provides opportunities for students to develop according to their abilities, potential, and needs. In addition, students will be able to learn about various essential and useful life values for their lives, which are proven to increase motivation (Harmini & Effendi, 2018) and student learning outcomes (Mulyawati et al., 2022). The characteristics of differentiated learning include the learning environment inviting students to learn, the curriculum has clearly defined learning objectives, in-depth assessment, the teacher responding to students' learning needs, and effective classroom management. Differentiated learning is developed by the teacher (Hasanah et al., 2022).

Differentiated learning is a series of reasonable decisions made by the teacher based on student needs (Hasanah et al., 2022). Implementation of differentiated learning by considering, first, a curriculum that has clearly defined learning objectives. Thus, it is not only the teacher who needs to be clear about the learning objectives but also the students. Second, it considers how the teacher responds to the learning needs of their students. It refers to how they will adapt the lesson plan to meet the student's learning needs. Using different sources, different methods, and different assignments and assessments.

Fourth, it deals with how they create a learning environment that invites students to study and work hard to achieve high learning purposes. They also ensure that every student in the class knows that there will always be support for them throughout the process. The fifth is effective classroom management. It is linked to how teachers create procedures, routines, and methods that allow for flexibility but also a clear structure, so that even though it may be possible to provide different activities, the class can still run effectively. Sixth, continuous assessment. It deals with how the teacher uses the information obtained from the formative assessment process that has been performed,

to determine which students are still lagging, or vice versa, and which students have already achieved the set learning goals.

To provide differentiated learning, each teacher should prepare a learning flow (Tomlinson, n.d.). The first is student mapping, Second, creating a differentiated learning plan based on the placement results outlined in an open module. Finally, evaluate and reflect on the learning that has been done. Differentiated learning consists of content, process and product differentiation (Kashdan et al., 2018; Melesse & Belay, 2022). Content differentiation is the demonstration material provided based on needs, interests, and abilities (Ortega et al., 2018). Students who have superior abilities based on initial difficulties can be given more challenging materials through enrichment programs, and for students who have special abilities, materials can be tailored to their abilities and needs (Melesse & Belay, 2022).

Process differentiation refers to student learning readiness and student learning styles, which can be known at the beginning of the difficulties (Kashdan et al., 2018) through non-cognitive diagnostic tests. Different characteristics of students require teachers to adopt models, approaches, and learning styles that adapt to the conditions of students. Thus, teachers must vary so that they can facilitate the learning process properly (Melesse & Belay, 2022). Product differentiation of student learning outcomes can be varied according to students' interests and learning styles (Kashdan et al., 2018) so students are expected to understand more and explore more of their product results (Melesse & Belay, 2022). In economic learning, students are given an initial test to determine their initial ability and group division, then given different material in each group, learning is carried out with the gallery walk method, and in the final stage doing the posttest, showing off the results of the work-discussion, and sharing experiences.

The cooperative learning model is based on values and practices, unraveling learning problems (Sharan, 2010), and the differentiation process is the gallery walk method mo-

del (Singh & Agrawal, 2011). It is a way to solve some questions asked by the teacher in groups. Gallery refers to an activity to introduce works or ideas to other students (Iqbal et al., 2021). The characteristics of the gallery walk learning model (Makmun et al., 2020; Ridwan, 2019; Humairoh, 2022). First, students work in groups cooperatively to complete their study material. Second, groups are formed from students who have high, medium, and low abilities. Third, if possible, the group should have members come from different races, cultures, ethnicities, and genders. Fourth, rewards are more oriented toward the group than the individual.

In this learning model, students face the activity of listening to what their friends say while visiting, which indirectly students will be brought to listen to what is said by the group member who is the host. In this process, students will listen to the material. Students are invited to work together in finding a concept or problem. The involvement of this cooperative learning model will direct students to be active, in discussing, asking questions, looking for answers, explaining, and also listening to material explained by friends (Dendup & Onthanee, 2020). In addition, the reason for using this learning model is because there is a clear division of group work for each member of the group, students can work together with their friends, and they can cope with busy and difficult student conditions during the teaching and learning process.

Thus, it returns to the nature of communication skills, which are a single unit, namely reading, speaking, writing, and listening. When students explain the material discussed by their group, then of course the students present are listening to what their friends explain material to other friends. Likewise, when students return to their groups to explain the material.

A person's professional competence consists of knowledge and skills, behaviors, and qualifications that make it possible to successfully carry out a task (Muchtamim, 2021; Boyatzis, 2008; Nielsen et al., 2019; Valenty-

na & Mykola, 2020; Burganova et al., 2016; Leask et al., 2020). Competence is the knowledge, skills, and behaviors to perform excellently and effectively (Armstrong & Taylor, 2014: 86). Student competence can be seen from improved work attitudes, knowledge, skills, and disciplinary responsibilities (Kotamena et al., 2021). Competencies based on skills, knowledge, and attitudes are consistently applied as a description of students' abilities as learners (Dessler, 2017; Swart & March, 2017; Mondy & Martocchio, 2016).

21st century learning emphasizes student-centered learning with critical thinking and problem solving, communication, collaboration, innovation creativity, information, and media literacy (Rachelle Garcia et al., 2020; Peters-Burton & Stehle, 2019; Sumardi et al., 2020; Faraniza, 2021; Peters-burton & Stehle, 2019). As a learning leader, the teacher is a classroom facilitator to achieve student competence. The selection of methods and media is a strategic part of learning that enables students to acquire knowledge, skills, and attitudes (Puspitarini & Hanif, 2019; Haleem et al., 2022; Mota & Cilento, 2020).

All students are unique, free to develop, and have superior potential. Classroom development should provide an active role for all students to have equal opportunities to gain knowledge and experience. 21st century learning is central to competency-based learning for students to be active and skilled, emphasizing information and data-based learning experiences, shaping innovation and responsible decision-making. Differentiated learning with the gallery walk method allows students to gain personal responsibility, collaborate, actualize, communicate work, observe, and appreciate input from other students, which in turn is expected to shape student creativity and innovation (Kim et al., 2019).

Employment material illustrates to students that they are part of human resources who must improve their quality from now on to be able to overcome any employment problems that will occur in the future that need to be investigated from now on (Etherington &

Etherington, 2011). High demands in the future require a strategy and learning model that is more varied, produces more diverse results, and provides broader knowledge as provision for the future, such as the demands of the industrial era 4.0 (Hussin, 2018), which requires innovative constructive social learning (Famiola, 2021), special knowledge, and skills in social analysis (Saniuk et al., 2021).

Bandura's social learning theory (Bandura, 1971) emphasizes active students building new economic knowledge from learning. The methods and media developed by teachers are in accordance with social cognitive theory, namely the economic environment is contextualized in learning (Puspitarini & Hanif, 2019; Ilmiani et al., 2021; Tri Harinie, 2017). Teachers provide economic problems about labor with different cases, and students provide alternative solutions through various processes and critical thinking. The gallery walk learning model is chosen by setting the employment competency in the context of identifying various unemployment and wage problems and solutions to overcome them.

Differentiated learning strategies with the gallery walk learning model were chosen as the right process for learning about employment issues (Zaier & Maina, 2022) because they produce interactive learning experiences and involve multiple solutions (Hasanah et al., 2022; Dugas, 2017). Employment material is material that is needed by students in 21st-century learning (Hanushek & Woessmann, 2020; Nambiar et al., 2019). Learning prepares students for the next five years as part of a productive workforce.

In addition to the great demands and needs, strategy selection is also carried out by looking at the student's background, interests, and potential. Students have diverse learning styles, and their potential is a "Breakthrough to Learn Diversity across Schools". Most have visual, auditory, or a combination of both with kinesthetic learning styles. Therefore, teachers must be able to combine various methods that can facilitate them all at once in the learning process. Seeing the abilities and potential of

students is also a consideration for teachers in determining the results of the products they produce. Some students have photography potential, developed through photo collages; others like image design through infographics, mind maps, and e-magazines. In addition, other students have entertainment and technology potential through videos and podcasts.

The teacher provides a variety of material that students can choose from, with the hope that the material they obtain will be more numerous and cover various things that are happening in their environment, and this requires appropriate learning solutions. The learning method developed is the gallery walk method, which can facilitate various student learning styles. Students are asked to work together in groups, some present and tell problems, listen, some ask questions, make products, and some write results. This activity is carried out by walking around and visiting other groups, namely, there are about seven groups in one class, like a gallery at an exhibition, so that no students just stay in their seats.

Based on the learning achievements and educational goals, the teacher develops how economic learning steps can implement differentiated learning. Learning aspects developed in content, process, and product innovation in discussing employment issues to produce quality and enjoyable learning based on the potential, needs, and abilities of students in class selection program classes. The purpose of this research is to find out: (1) How is the learning process differentiated learning using the gallery walk method? (2) How is the effectiveness of learning differentiating learning with the walking gallery method? (3) What is the impact of students' 21st-century learning competencies on differentiated learning using the gallery walk method?

METHODS

This research used quantitative research with a quasi-experimental design— research in education to test the effectiveness and modeling of new learning (Gopalan et al., 2020;

Fraenkel & Walen, 2000). Experimental research is research in which the independent variable is manipulated to investigate the cause-and-effect relationship between the independent and dependent variables (McMillan & Schumacher, 2001). The type of design in this study is in the form of a nonequivalent (pretest and posttest) control group design. A nonequivalent control group design is the most popular approach in quasi-experiments (Creswell, 2014), the experimental group and the control group were not chosen randomly.

The experimental study began with a pretest, where students' abilities were measured on an initial scale. With the same student ability on the initial scale, it can be continued with the provision of treatment, namely the gallery walk method in the experimental class. While the control class carried out learning as usual. At the end of the scale, a posttest is given to test the results of learning achievements and compare differences between classes.

Quasi-experimental research is a type of experiment where participants are not randomly assigned to the experimental and control group (McMillan & Schumacher, 2001). The quasi-experiment was carried out with two learning class groups. The experimental class used differentiated learning and the gallery walk method, while the control class involved conventional learning using lecture and discussion learning methods. The steps in this design are the same as in the pretest-posttest experimental control group design (see Table 1).

Table 1. Quasi-Experimental Research Design

Class group	Pretest	Treatment	Posttest
Experiment	O1	X	O2
Control	O1	-	O2

Source: McMillan & Schumacher (2001); Fraenkel & Walen (2000)

Information:

O1 = Initial measurement in the experimental group and the control group

O2 = Final measurement in the experimental group and the control group

X = Treatment using differentiated learning and the gallery walk method

The sample in this study was made up of students at Avicenna Jagakarsa High School - South Jakarta, Indonesia. It consists of two classes at level 11, namely Economy 1 class as the experimental class and Economy 2 class as the control class. Class 11 was chosen because it had received prerequisite material so that it could be used as a basis for carrying out learning actions as desired in this study.

The research data test consists of a normality test (Khatun, 2021; Lee et al., 2016) with the statistical data processing software SPSS 25.0. With the Asymp. Sig rule or p-value, if the sig value is greater than the 5% alpha level (sig > 0.05), it can be concluded that the data comes from a population with a normal distribution. Furthermore, the homogeneity test is to test the similarity of some parts of the sample, whether or not the sample variance is uniform or not taken from the same population. In experimental research, data must be normally distributed to be tested parametrically.

To find out whether the sample data in each group can be said to be homogeneous or not, and whether or not they can be combined for further analysis. The homogeneity test is carried out if the calculated significance value is greater than the significance level of 0.05 (Chukwudi et al., 2019; Gowda et al., 2019; Mishra et al., 2019). When the score of the test results does not have different variants or is homogeneous, then a different test was carried out with ANOVA using the t-test technique. The t-test is used to test whether the mean values of the two groups have a significant difference or not. The level of acceptance of the hypothesis was tested with a significance level of 5% (Massey & Miller, 2019). If the count value is greater than the t-table value at a significance level of 5%, then there is no significant difference between the control group and the experimental group. If one or both of the

data are not normally distributed, the Mann-Whitney test is used as the next step (Nachar, 2008). This test was chosen because this study uses two independent samples and the data is not normally distributed. In this study, the initial scale used the Anova test to compare means between populations. Because the data is normally distributed and homogeneous. In the final scale research using the Mann-Whitney test as a non-parametric test, because in the final results the data is normally distributed but not homogeneous. This shows that there are differences between classes after being given treatment.

RESULT AND DISCUSSION

The Learning Process of Differentiated Learning with the Gallery Walk Method

The student competence tested in this study is the ability of students in 21st-century learning. The learning outcomes are the ability in Critical Thinking, Creative Thinking, Collaboration, and Communication. These abilities are reflected in the learning process and outcomes in this study, including the ability to create reports and explore information, work together in groups, cooperate, and communicate learning outcomes in class discussions.

During this first meeting, students are given a stimulus by showing various pictures about employment problems from the media and a YouTube video entitled "Invasion of Foreign Workers". The teacher provides trigger questions as an initial assessment/formative to test abilities such as mapping and knowing prerequisite abilities. Furthermore, students are grouped by the teacher in a heterogeneous manner based on the results of the initial assessment. Each group is given a list of content material (content differentiation) that can be selected, at least one, and maybe more than they will discuss and present and they can choose other material that is still related to other employment issues. Each student is given the freedom to choose the form of product that they will display according to their abilities, potential, and interests, as a means of presentation to other groups.

In the next stage, students in each group collaborate to find and explore news sources and discuss their respective material, which consists of problems that occur, facts and data related to these issues, factors that cause the problem to occur, the impact of the problems and the solutions taken to solve the problem. Students work in groups with the guidance of the teacher and write down the results on the paper provided. The next activity is carried out on the second day.

Table 2. List of Learning Materials

Material list of labor issues in Indonesia:	List of product choices (results of group work reports)
Underage workers	E-Magazines
Problems of labor abroad	Infographics/posters
Low labor wages	Videos
Low quality of labor	Radio Sound
The rise of foreign workers coming to Indonesia	Podcasts
Problems in the outsourcing system	Photo Collage
The job creation law was rejected by workers	Mind mapping
The low competitiveness of Indonesian workers	News anchor
The number of unemployment in Indonesia	Reportage
Unilateral layoffs by the company	Newspaper

Source: Processed data (2023)

In the second meeting, students discuss how to determine which students will make presentations and who will visit other groups. Each group prepares and installs its product in the classroom based on the division of group positions to be exhibited to the groups that will attend.

In the next stage, each group sends 2-3 students who will go around looking for information and other students who will just have to explain the contents of the product. In conducting visits, they are carried out in turns and sequentially so that there is no accumulation in one group, for example, group 1 is visited by Group 2, group 2 is visited by Group 3, and so forth. Each student present must record the information obtained from the group of friends they visited and assess it by writing down what is interesting about the group they visited. Everyone returned to their initial group positions, and shared information among their group members, and tidied up the reports that were made. Collection of product results and reports via the Google Drive link provided by the teacher.

At the third meeting, the teacher provided a quiz with multiple choice questions as











the final evaluation through quizzes directly in class. The process of obtaining learning feedback is also carried out through notes on the learning process. Learning reflection is carried out through post-it notes, which are distributed for reflection and evaluation of the learning process for improvement in the next learning process.

Learning Effectiveness of Differentiated Learning with the Gallery Walk Method

This study examines the effectiveness of differentiated learning using the gallery walk method to form 21st-century competence. The pretest-posttest questions were given a written test of ten questions. Data on student learning outcomes are presented in Table 4.

Based on the data in Table 4, it is known that the mean in the control class pretest was 56.6 higher than the experimental class (55.7). However, in the posttest, the experimental class mean was 74.8, greater than the control class (61.7). The minimum pretest score for the control class was 29 one point higher than the experimental class (28). The minimum post-test score for the control class was 36 while the experimental class was 43.

Table 3. Stages, Processes, and Products of Cycle 2 Learning Classes

Learning stages	Process and Product	Learning stages	Process and Product
Magazine review – Outsourcing Issues		Unemployment infographics	
Video Podcasts – low pay		Magazine – layoff cases	
E-Magazine and crossword games – quality work		Infographic – Women’s Kindergarten Injustice	
Video podcast – foreign workers in Indonesia		Photo collage – layoffs during the pandemic	
Mind map – unilateral termination of employment		Collage – Labor demonstration of the job creation law	

Source: Processed data (2023)

This indicated that the minimum score had not increased much. On the maximum score, the control class pretest reached a score of 77, and the experimental class obtained 78. Meanwhile, on the final measurement scale, the experimental class post-test acquired a maximum score of 93 higher than the control class.

To compare the data and analyze the differences between the data classes above, the Normality and Homogeneity tests are then carried out as follows (see Table 5).

Based on the pretest and posttest scores between the two classes of normally distributed data, the score was 0.210 for the control pretest and 0.200 for the posttest. The experimental class pretest data test obtained data of 0.220 and 0.210, respectively, so that the pretest and post-test data for the experimental class and controls were normally distributed. Furthermore, the homogeneity test was car-

ried out, obtaining a comparison of data between the experimental class and the control class at the time of the pretest of 0.404. Thus, it can be concluded that the two classes did not have a significant difference in ability, the experimental class and the control class were homogeneous or had the same population variance.

While the results of the data in the post-test control and experimental classes obtained a homogeneity test of 0.000. Since the data is normal but not homogeneous, a non-parametric test was carried out with the Mann-Whitney test, and a significance value of 0.000 was obtained. The value of the data test is obtained by a number less than 0.05, so there is a significant difference in the post-test between the two classes. This indicates that differentiated learning with the gallery walk method can significantly improve student learning outcomes.

Table 4. Descriptive Research Data

Statistics	Mean	Median	Mode	Std. Dev	Range	Min	Max	Sum
O1 Control	56.6	56.5	65.0 ^a	11.7	48	29	77	1699
O2 Control	61.7	63.5	71.0	10.7	47	36	83	1853
O1 Experiment	55.7	55.0	63.0 ^a	11.5	50	28	78	1672
O2 Experiment	74.8	76.0	63.0	12.4	50	43	93	2244

Source: Processed data (2023)

Table 5. Test the Normality and Homogeneity of Research Data

Measurement	One-Sample Kolmogorov-Smirnov Test				Wilcoxon Signed Ranks Test	
	O1 Control	O2 Control	O1 Experiment	O2 Experiment	O1 Control – O1 Experiment	O2 Control – O2 Experiment
Mean	56.6	61.7	55.7	74.8		
Std. Deviation	11.7	10.7	11.5	12.3		
Absolute	0.129	0.118	0.109	0.104		
Positive	0.066	0.096	0.103	0.071		
Negative	-0.129	-0.118	-0.109	-0.104		
Test Statistic/ Z	0.129	0.118	0.109	0.104	-0.835 ^b	-4.651 ^c
Asymp. Sig. (2-tailed)	0.210 ^{c,d}	0.200 ^{c,d}	0.220 ^{c,d}	0.210 ^{c,d}	0.404	0.000

Source: Processed data (2023)

Table 6. The Result of the Mann-Whitney Test

		Ranks			Control ^a	
	Experiment	N	Mean Rank	Sum of Ranks	Mann-Whitney U	181.500
Control	Code: 1.00	30	21.55	646.50	Wilcoxon W	646.500
	Code: 2.00	30	39.45	1183.50	Z	-3.974
	Total	60			Asymp. (2-tailed)	Sig. 0.000

Grouping Variable: Experiment

Test Statistics^a

Source: Processed data (2023)

The Impact of Students' 21st-Century Learning Competencies on Differentiated Learning with the Gallery Walk Method

Based on the results of observations made during the process of this learning activity, many students are seriously looking for information and trying to understand the material that is part of their assignment. This is because, in the next meeting, they will convey the material to their friends who will visit their group. In the context of social learning, differentiated learning improves economic learning outcomes (BenYishay & Mobarak, 2019; Akers & Jennings, 2019; Wenger-Trayner, 2020).

When the gallery starts, all the students walk to visit each group in turn and take careful note of the important things that their friends explain. It can be seen that all students are active in their respective roles. Students who usually look less active and tend to be relaxed/indifferent in the process of explaining and asking questions turn out to convey quite well. With the large number of groups formed, they must be able to explain different material from each group; thus, it is expected that their knowledge and insights will be broader and more diverse.

There appears to be an increase in individual learning outcomes in the control and experimental classes. For some students, there was a jump in learning outcomes, this was identified by the teacher as evidence that these students were more active in learning to ob-

tain better knowledge. The cognitive, affective, and psychomotor aspects of learning are pivotal in forming the complete learning outcomes of students.

The supporting factors of the learning process with this learning system are the diverse abilities and potential of students. Thus, the learning process is more varied by displaying various interesting learning media, and according to their choice, the learning environment. This is already more conducive to the collaborative group learning model at school which is also a good thing in managing learning classes. Coupled with the existence of smartphone, laptop, and tablet technology facilities that are owned by all students as learning aids, this is very helpful and supports the learning process taking place as intended.

Learning about employment competencies in the context of identifying various problems of unemployment and wages as well as solutions to overcome them. In 21st-century competency, critical thinking and problem solving can be implemented in learning by criticizing the current workforce conditions, students are faced with several alternative solutions to solving employment problems. Learning outcomes are communicated to the class together with the group. It accommodates communication and collaboration. Presenting solutions, and class presentations on work results provide creativity and innovation in learning. Various online and real learning resources contextually provide information

and media literacy for students, which will provide real learning experiences for students' future lives.

Collaborative group learning is a form of learning that is quite effective in building synergy and collaboration between fellow students (Snyder et al., 2019; Herrera-Pavo, 2021; Chen et al., 2020). A good process can be further developed by making more planned projects and product designs by involving various elements within the student's environment. One of the alternative developments in this learning process is that teachers can call on expert figures to become class guest teachers to discuss employment issues (laborers, employers, human resources, labor), who are invited to speak on employment issues they face in the world. This learning requires access to technology and information as well as students' psychomotor skills in class. The obstacles that students complain about are usually the less stable wifi internet and the rather constrained process of making videos.

CONCLUSION

This research aims to develop new ways of innovating the teacher's learning process in the classroom. The learning process of differentiated learning with the gallery walk method has several stages. First, students are given a stimulus with a variety of pictures. The teacher gives trigger questions to assess students' ability mapping, students are grouped heterogeneously, and each group is given a list of material. Each student chooses the form of product they will display according to their abilities, potential, and interests, as a means of presentation to other groups, each group collaborates to find and explore news sources and discuss their material. Problems that exist, facts and data related to these problems, factors that cause the problem to occur, the impact of the problem, and the solutions taken to solve the problem.

Second, students discuss how to determine which students will make presentations and who will visit other groups. Groups pre-

pare their products to be exhibited to groups that will attend. Each group sends 2-3 students who will go around looking for information and other students who will just have to explain the content, products to those present to visit. Third, the teacher gives quizzes and feedback, taking notes during the learning process. Learning reflection is carried out through post-its, which are distributed to evaluate the learning process for improvement in the next learning process.

Based on the results of teacher observations and activity assessment sheets in presenting the results of the gallery walk, each student feels learning is more active and interactive and can understand the essence of the learning material quite well because all students are given the same opportunity to be directly involved through their respective groups in exploring material, making products, and presenting results based on their potential and interests. Differentiated learning with the gallery walk method is proven to significantly improve student learning outcomes. For teachers in education as a process for making improvements in the learning process that is differentiated in the classroom, as a medium for sharing knowledge and good experience in the learning process among fellow teachers, as a learning process for pouring ideas of sustainable renewal in developing approaches/learning methods in class.

Differentiated learning with the gallery walk method has an impact on the achievement of students' 21st-century learning competencies, including critical thinking and problem solving, communication and collaboration, creativity and innovation, and information and media literacy. The differentiated learning process through the gallery walk shows that the results obtained will be better, richer, and more varied for future improvements and developments that can be carried out in collaboration with schools and teachers. The need for a more focused and diverse literacy process to produce a complete understanding and quality learning products. This research has a limited population and the research sample was only

carried out in high school, with two classes as experimental and control research. For future researchers to be able to research learning differentiation in other learning materials as well as in different competencies.

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Appendix 1. Summary of group visit results

Study Group	Learning Information
Group 1 (Study Topic: Human jobs are replaced by robots)	<ul style="list-style-type: none"> -Many jobs have the potential to be replaced by robots due to high technological advances. -The reason is that companies tend to prefer machine workers over humans. -Based on existing data that there will be 20 million manufacturing jobs that will be taken over by robots. -The impact that occurs is that many human workers lose their jobs. -The solution that can be done is to provide training by the times.
Group 2 (Study Topic: The problem of low wages)	<ul style="list-style-type: none"> -Have two product results, a mind map, and a podcast. -The reason employers give a meager salary is like the theory of iron wages. -The impact of this problem is not having enough living expenses due to a small salary, causing demonstrations. -The solution that can be done is to build a strong public sector economy.
Group 3 (Study Topic: Outsourced labor issues)	<ul style="list-style-type: none"> -Outsourcing is the delivery of work to other companies. -The negative impact caused by employees is difficult to develop, low-class work. The resulting positive impact saves operational costs. -An example of a case is at PT Jakarta International 400 employees were terminated because the contract expired and the employees did not agree. -The solution that can be provided is for workers can improve their competence to compete.
Group 4 (Study Topic: The quality of Indonesian workers is still low)	<ul style="list-style-type: none"> -Factors causing this problem are education ratings that are still low, a mismatch between work and education, and causing difficulties in finding work. -An example of this is that foreign workers are in greater demand because their education is more advanced. -The impact of this problem is the higher unemployment rate. -The solution is to hold work centers and improve the education sector.
Group 5 (Study Topic: Unemployment due to layoffs)	<ul style="list-style-type: none"> - Termination of employment usually occurs because the company goes bankrupt or the worker commits a violation. -The program for people in layoffs or solutions is the existence of a job training center
Group 6 (Topic of Study: Unemployment/jobless)	<ul style="list-style-type: none"> -Unemployment in Indonesia is recorded at 5.83 percent of the total population. -The cause is an imbalance in the rate of population growth with available jobs. - Unemployment by cause - Unemployment by nature

Appendix 2. Learning test questions, Employment problems

1. One of the labor problems faced by Indonesia is related to outsourcing. One of the factors that causes this problem to arise is misunderstanding and distortion of the meaning of outsourcing itself.

Which is a negative impact of implementing the outsourcing system for workers is...

- a. working hours for outsourced workers are longer
- b. the wages obtained are lower because it is cut by the distribution company
- c. the quality of workers is lower because they do not receive direct guidance
- d. the types of work allowed by these workers are narrower
- e. not getting a job guarantee from the distribution company

2. Unemployment has a negative impact not only on economic problems but can also be a trigger for social vulnerability. On that basis, this problem must be resolved by every country. Generally, the cause of unemployment is the rate of population growth, which is not matched by the availability of wide employment opportunities. The increasing number of unemployed, coupled with the entry of foreign workers into Indonesia, will lead to increasingly fierce competition among workers to get the jobs they want.

The impact on the government is...

- a. Obtain the best workforce according to needs
- b. salary receipts will be lower than the cost of living
- c. the number of unemployed is relatively higher
- d. per capita income is declining
- e. employee salary payments will be higher

3. Consider the statements of several ways to increase the quantity and quality of the workforce as follows:

- (1) opening jobs, both new and those that have been closed
- (2) provide appropriate education and training for changes in economic conditions
- (3) increase the mobility of capital and labor in each region
- (4) improve the provision of nutrition and the health quality of workers.
- (5) provide educational scholarships to outstanding workers.

Which includes how to improve the quality of labor is ...

- a. (1), (2), and (3)
- b. (1), (3), and (5)
- c. (2), (3), and (4)
- d. (2), (4), and (5)
- e. (3), (4), and (5)

4. The Covid-19 pandemic that occurred has hit the national economy and caused many layoffs in various work sectors. This causes the unemployment rate to increase. Unemployment caused by a pandemic is a type of unemployment...

- a. structural
- b. cycle
- c. technology
- d. seasonal
- e. frictional

5. With a large number of unemployed coupled with the entry of foreign workers in Indonesia, it will lead to increasingly fierce competition among workers to obtain the jobs they want.

The impact on entrepreneurs is...

- a. obtain the best workforce according to needs
- b. salary receipts will be higher than the cost of living
- c. the number of unemployed is relatively higher
- d. personal income is decreasing
- e. employee salary payments will be higher

6. In this era of globalization, every country cannot avoid the invasion of foreign workers, both skilled and non-skilled. Indonesia is one of the countries targeted by the invasion of foreign workers. Government policies that provide concessions to the entry of foreign workers are increasingly tightening competition with domestic workers.

Based on this illustration, the positive impact on workers in Indonesia is...

- a. there is cultural acculturation between the local community and the arrival of foreign workers
- b. many food stalls have sprung up around the factory, which uses a lot of labor services
- c. emerging new businesses needed by foreign workers in Indonesia
- d. motivating the work ethic of the community to be able to compete with foreign workers
- e. tourism in Indonesia is the prima donna for foreign workers to visit as a means of entertainment

7. The global crisis that is now sweeping the world has caused sluggishness in the business world throughout the sphere resulting in massive layoffs (cyclical unemployment). Overcoming these problems can be done by the government or the company. A business that can be done by the company is ...

- a. building and multiplying labor-intensive projects
- b. increasing the mobility of company capital
- c. assisting people affected by layoffs
- d. building and developing vocational training centers
- e. looking for information about places that need workers

8. The problem of employment in Indonesia lies not in the lack of the number of workers, but in the lack of skilled workers in the regions. As a result, many natural resource potentials have not been optimally processed.

Efforts to improve the quality of human resources in the region are...

- a. reduce the size of the workforce in areas with family planning and transmigration programs.
- b. provide high salaries to skilled workers who serve in remote areas
- c. implementing a ban on moving to cities for workers in the regions
- d. developing labor-intensive industries in each region
- e. increasing and empowering vocational training centers and optimizing the 12-year compulsory education program.

9. The low regional minimum wage often causes workers to hold demonstrations. Efforts that can be made by the government or companies related to this problem are...

- a. the company reports workers who are demonstrating to the authorities
- b. the company raised the regional minimum wage so workers would not go on demonstrations
- c. the company terminates the employment of workers who demonstrate
- d. the government acts as a mediator for workers and companies to resolve problems
- e. the government has approached workers, so they do not hold demonstrations

10. The workforce should become entrepreneurs and not depend on job opportunities offered by companies to overcome employment problems. The employment problem based on the statement is...

- a. the number of workers is greater than the available job opportunities
- b. the lack of skills possessed by Indonesian workers
- c. the education level of the workforce is low
- d. labor in big cities is greater than in remote towns
- e. Indonesian workers get a small wage