DEVELOPING STUDENTS' WORKSHEETS FOR ENGLISH LANGUAGE TEACHING TO COPE WITH THE 4C'S SKILLS THROUGH PROJECT-BASED LEARNING

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Abstract
The Indonesian government has directed the abilities of Indonesian students towards the 4C skill (creativity, critical thinking, collaboration, and communication) since 2013. PjBL-based students' worksheets will be able to encourage the 4C's skills; while still adopting Technological Pedagogical and Content Knowledge (TPACK) and Higher Order Thinking Skills (HOTS). The current research aimed to implement and evaluate design concepts and develop PjBL-based students worksheet that has been adapted to teaching materials to improve the 4C skill of Senior High School students in English subjects. The PjBL-based students' worksheet was developed by matching the criteria for the components of the student's worksheet model, namely: model syntax, social systems, management reaction principles, support systems, instructional impacts, and accompaniments, as well as other necessary instruments. The instruments developed were in the form of a student worksheet model validation sheet and learning tools validated by experts and practitioners. This research resulted that PjBL-based students' worksheets are needed to be developed for English language teaching to cope with the 4C skill of Senior High School Students.

Keywords: 4C's skill, Project-based Learning (PjBL), students' worksheet

Introduction
Education is required to develop skills in the 21st century. Students must have the 21st-century skills to become skilled individuals who live in the 21st century with the many opportunities and challenges that will be faced in the era of increasingly advanced technology and information (Wijaya, Sudjimat, & Nyoto, 2016). In teaching skills in the 21st century, teachers can integrate them into separate activities in the form of learning activities, teachers only act as facilitators and students practice themselves (Hendayana, 2019 ;Widodo & Wardani, 2020). Some of the skills to face the challenges of 21st-century development are the 4C's skill (Creative, Critical Thinking, Collaborative and Communicative), effectively integrating 21st-century skills in the learning process is very important (Sari & Trisnawati, 2019).

One of the important elements to realize the ideals of the 4C's skill is improving the quality of *Pengembangan Pelaksanaan Pembelajaran* (PPP) which includes RPP, Teaching Materials, Teaching Media, student worksheets, and Assessment Instruments (Hendayana, 2019). Students' worksheets are printed teaching materials that contain material, summaries, and instructions in the implementation of learning tasks that must be done by students and refer to the basic competencies that must be achieved. Students' worksheet has an important role in the learning process so innovation is needed and must be adapted to the current curriculum (Mulyasa, 2014).

The learning model can be an alternative in developing students' worksheets. According to Sudira (2018), one of the learning models that can be applied to the 21st-century learning system is the project-based learning (PjBL) model. According to Jalinus, Nabawi, and Mardin (2017), the PjBL model can improve student learning activities so that they get a real learning experience based on existing problems and needs. Following the characteristics of the 21st-century learning system, the purpose of the PjBL model has the same characteristics, namely to improve the learner's experience (Sudira, 2018, p.180). The purpose of the PjBL model is so that the characteristics of the 4C's skill in the 21st-century learning system can be applied (Sunardi, 2016; Tamim & Grant, 2013).

Universitas Muslim Nusantara (UMN) Al-Washliyah is a university that follows developments and implements the learning process outlined by the Government. UMN Al Washliyah is one of the private universities in the city of Medan, with the vision of "Being the Best Private University that is Humanist, Independent and with Islamic Characteristics in Indonesia in 2045". Through *Rencana Strategi* (Renstra) that has been set, especially in the leading field of Educational Sciences to be achieved by 2022–2026, with the sub-field of Teacher Professional Development, with the leading topic of Teacher Performance Development, one of the most important ways for teacher performance is to develop PjBL-based students' worksheet which can encourage the 4C's skill (Tim Penyusun, 2019).

One of the problems faced by students and alumni of PSPPG UMN Al Washliyah is the readiness of students whose students complete the students' worksheet, based on observations, it is known that students still experience irregularities and difficulties in implementing PjBL-based learning and efforts to maximize the 4C's skill achievements. The results of open interviews with PPG students revealed that they still had difficulty in compiling PjBL-based students worksheet that was able to encourage the 4C's skill, the results of observations of the PPL implementation and Performance Tests could also be concluded that the students' worksheet provided had not been able to encourage students to achieve 4C's skill optimally.

Based on the preliminary data, the solution that must be done immediately is to develop PjBL-based teaching materials by designing students' worksheet that encourages creativity, critical thinking, collaboration, and communication. Thus, the field of education will be achieved from 2022 to 2026, with the research sub-field of Teacher Professional Development achieved.

The 4C's skill (creative, critical thinking, collaboration, and communication)

Indicators of innovation ability in 21st-century learning are called the 4C's skills, namely Creative, Critical Thinking, Collaborative and Communicative. The 4C skills must be mastered and possessed by every student to face the challenges of the 21st century. Several countries in the world have used the 4C's skill and their PISA (Program for International Student Assessment) results are far above the UK's (OECD, 2018, 2019). This could be an alarm for the government considering that the graduates demanded in the 21st century have high standards. By integrating 21st-century skills, each student is expected to be able to compete globally in the world of work, and social life and also have a responsible attitude for his future provision. The benchmarks of the 4C's skill can be shown in table 1 below.

Table 1. The 4C's skill

The 4C's	Skills
Critical Thinking	a. Using inductive reasoning or deductive contagion
	b. Analyzing the interrelationships of each part of the whole to produce a complex system
	c. Analyze and evaluate facts
	d. Draw conclusions based on the results of the analysis
	e. Solve unusual/common problems in conventional or innovative ways
Creative	a. Create new ideas
	b. Expand basic ideas/concepts to enhance and maximize creative efforts
	c. Apply creative ideas as a real contribution to life
Communication	a. Express thoughts or ideas verbally or non-verbally
	b. Use communication for multiple purposes (e.g. inform, instruct, motivate or invite)
	c. Use various media or technology in learning
Collaboration	a. Demonstrate the ability to work effectively in a group
	b. Accept the division of responsibilities and contribute to completing group assignments
	c. Provide input and show mutual respect

Students' worksheet

Students' worksheets can be interpreted as sheets containing assignments that must be done by students in the form of printed or digital teaching materials containing assignments that students must do. Students' worksheets must be adjusted so that they can direct the achievement of *Indikator Pencapaian Kompetensi* (*IPK*) which are divided into affective, cognitive, and psychomotor. The use of PjBL-based students' worksheets in learning will be carried out successfully if it is carried out following project-based learning steps. There are 6 six stages of learning, namely: (1) start with the essential question, (2) design a plan for the project, (3) create a schedule, (4) monitor the students and the progress of the project, (5) assess the outcome, (6) evaluate the experiences (Baker, Breanna, Patricia, Margaret, & Lynne, 2011).

These learning steps will be carried out if they are designed properly, for this reason, it is necessary for the teacher's ability to design learning so that students'

process skills can be developed. Process skills are obtained by students through the learning experiences experienced by students in learning activities.

PjBL-based Students' Worksheet

Students' worksheet is the spirit of learning that brings students to achieve competency indicators. So it can be concluded that students' worksheet plays an important role in the learning process both inside and outside the classroom to make learning outcomes successful. One of the good students' worksheet is based on PjBL in this case it is explained that PjBL-based students' worksheet involves the activeness of students in solving problems that are carried out in groups/independently through scientific stages with a certain time limit which is outlined in a product to be presented to others. Here is the syntax in PjBL.

Table 2. Syntax in PjBL

Work Steps	Teacher's Activities	Students' Activities
Essential Question	The teacher presents the topic and asks questions about how to solve the problem.	Students ask basic questions about what students should do about the topic/problem-solving.
Design a Plan for the Project	The teacher ensures that each student in the group chooses and knows the procedure for making the project/product that will be produced.	Students discuss preparing a plan for making a problem-solving project including the division of tasks, and preparation of tools, materials, media, and resources needed.
Create a Schedule	The teacher and students agree to the schedule for making the project (stages and collection).	Students prepare a project completion schedule by taking into account the time limit that has been determined together.
Monitor the Students and the Progress of the Project	The teacher monitors the student's activity while carrying out the project, monitors the realization of progress, and guides them if they face difficulties.	Students make projects according to schedule, record each stage, and discuss the problems that arise during project completion with the teacher.
Assess the Outcome	The teacher discusses the project prototype, monitors the involvement of students, and measures the standards of achievement.	Discuss the feasibility of the project that has been made and make a product/work report to be presented to others.
Evaluate the Experiences	The teacher guides the project presentation process and responds to the results, then the teacher and students reflect/conclude.	Each student presents a report, other students provide feedback, and together with the teacher conclude the project results.

Method

Development research was selected for this research. R&D is research that is used to produce a particular product and test the effectiveness of that product (Sugiyono, 2010). This study developed PjBL-based students' worksheet model to improve the 4C skills (creativity, critical thinking, collaboration, and communication) of Senior High School Students.

The objects of this research were the teachers and students of class XI senior high school in SMA Negeri 3 Medan, SMA Negeri 1 Perbaungan, SMA Negeri 1 Angkola Barat, SMA Negeri 1 Meranti, and SMA Negeri 2 Lubuk Pakam as respondents within the academic year of 2022/2023.

In developing students' worksheet models, a development model that is following the education system is needed. The PjBL-based students' worksheet model was developed following the stages of development as a result of the modification of the development model proposed by Plomp and adopted (Sinaga, 2007), they are (1)Phase-1: Initial Development, (2)Phase-2: Design, (3)Phase-3: Realization and (4)Phase-4: Testing, Evaluation, and Revision.

To measure the validity, practicality, and effectiveness of the developed PjBL-based students' worksheet model, a research instrument was compiled and developed. The instruments used in this study were 1) validation sheets; 2) expert and practitioner assessment sheets regarding the implementation and effectiveness of the model, 3) observation sheets; 4) student and teacher response questionnaires to learning components and activities, and 5) 4C's skill test.

Findings and Discussion

This research has found some results of the analysis data. First, results of the Preliminary Investigation of PjBL-based students' worksheets. Based on the results of the questionnaire analysis of the needs of PjBL-based students' worksheets, it can be seen that the PjBL-based students' worksheet model is very much needed in teaching English in Senior High School at this time. This can be seen from the average respondents' answers to the needs analysis of the PjBL-based students' worksheet model questionnaire which is very much needed.

The second, based on the results of the evaluation of English students' worksheets can be seen that students' worksheet received by students so far is appropriate because it contains elements of 21st Century learning skills, namely 4C's skills (Creativity, Critical Thinking, Collaboration, and Communication). This can be seen from the average respondents' answers to the current English students' worksheet Evaluation Questionnaire. There are several students worksheet models received by students from teachers so far in the form of; 1) group learning system, 2) PPT model, 3) drama making, 4) presentation, 5) group and individual assignments, 6) effective learning, and 7) applicative and integrative worksheets.

On the other hand, based on the results of the questionnaire analysis of the English teaching and learning process at the Senior High School of the research location is good. This can be seen from the average respondents' answers to the English teaching and learning process evaluation questionnaire is good. However, there are several obstacles faced by teachers in the English teaching and learning process, namely:

1. Lack of facilities.
2. Students have difficulty following English lessons and do not want to take English courses outside of school hours.
3. Some students still need to improve their basic knowledge of English.
4. Students have a low interest in learning English.
5. Students do not want to use English well even though it is required to use English

Based on these three analyzes, it can be concluded that the development of the PjBL-based students' worksheet model is very much needed in learning English subjects at Senior High School where the research location is.

Conclusion

Based on the results of the questionnaire analysis of the needs of PjBL-based students' worksheets, it can be seen that the PjBL-based students' worksheet model is very much needed in teaching English in Senior High School at this time. The second, based on the results of the evaluation of English students' worksheets can be seen that students' worksheet received by students so far is appropriate because it contains elements of 21st Century learning skills, namely 4C's skills (Creativity, Critical Thinking, Collaboration, and Communication). Students do not want to use English well even though it is required to use English. Based on these three analyzes, it can be concluded that the development of the PjBL-based students' worksheet model is very much needed in learning English subjects at Senior High School where the research location is.

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