Implementation Of Project-Based Learning In Academic Writing Course Lectures (*Wissenschaftliches Schreiben*)

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Abstract. The purpose of this paper is to describe the assignment and implementation of six tasks in the academic writing skills course (*Wissenschaftliches Schreiben*). The tasks assigned to students during the one-semester course are: routine tasks, critical book reports, critical journal reports, idea engineering, mini-research, and projects. These six tasks must be completed by students in an integrated manner. Students work on the six tasks in groups consisting of two to five members and report their results as a group. According to the university's key performance indicators, these six tasks are integrated into the implementation of case method assignments and project-based assignments. The learning outcomes include scientific articles published in seminars and proceedings with ISBNs.

Keywords: Project-Based Learning, Academic Writing Course

1 Introduction

Starting in the odd semester of the 2016/2017 academic year, Universitas Negeri Medan implemented the KKNI-based curriculum in odd-semester courses for new students (Humas Unimed[1], 2016). Every course plan is designed based on *Permenristekdikti* Number 44 of 2015. Article 12 states that semester course plans are determined and developed independently or collaboratively by lecturers within their fields of expertise in a particular discipline or technology within a study program. The standards for curriculum design based on the KKNI function as a guideline for all lecturers to create, implement, and assess the learning activities carried out in the classroom.

The lecture materials prepared cover the areas of knowledge, general skills, specific skills, and attitudes. Student competencies are developed through six methods, known as the six tasks: routine tasks, critical book report (CBR), critical journal report (CJR), idea engineering, mini research (MR), and project. These six tasks became a new pattern in the teaching process implemented by lecturers in the odd semester of the 2016/2017 academic year. There is no course for which these six tasks are irrelevant, as the reasoning is based on the premise that every course certainly has sources or literature, whether in the form of books, journals, or related research findings (Gultom[2], 2016).

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The focus of this paper is on how the six tasks are assigned, implemented, and assessed in the teaching of the *Wissenschaftliches Schreiben* course. Below is an explanation of these six tasks.

A. Routine Tasks

Routine tasks are assignments given by the course lecturer in every learning session. Routine tasks may be assigned to students at each meeting, weekly, or monthly, depending on the course's needs. The submission schedule for routine tasks is based on mutual agreement between the lecturer and students, in accordance with applicable regulations. These tasks may take the form of questions to be answered individually or in groups, observations, or summaries related to the material being taught. Routine tasks help students understand the material presented by the lecturer. They also serve as entry conditions for completing the other five tasks (Barus, Barus, and Naelofaria[3], 2017:13).

B. Critical Book Report (CBR)

The CBR is a task involving the review of a book. Each student is tasked with analyzing and examining a book's content based on the concepts or theories learned in the course in order to form a critical perspective (a critical position) for the review.

Students are required to read the designated book before beginning group work. In the process, the lecturer specifies the main book and supporting books, after which students work in groups for comprehension and report the results individually. The submission schedule for the critical book report is determined by mutual agreement between the lecturer and students.

C. Critical Journal Report (CJR)

The CJR is a task involving the critical review of a scientific article. Students critically assess all elements within a research report or journal article to identify its strengths and weaknesses, while also providing relevant suggestions to maintain the strengths and address the weaknesses of the research or article. The lecturer selects the articles from journals or research reports for review. If students choose their own articles, the selected articles must receive the lecturer's approval. Students may also use other articles published within the same time period or different periods to support their arguments. Students are required to work in groups during the comprehension phase but must report their reviews individually. The articles reviewed can come from journals with ISSNs or proceedings with ISBNs published within the last ten years. Articles may originate from national or international journals or proceedings.

D. Idea Engineering

Idea engineering involves the task of creating new ideas or concepts. Lecturers and students discuss and determine the scope of ideas to be developed. Students are required to form groups based on similarities or commonalities in the ideas to be engineered, but the results are reported individually. The ideas engineered may consist of derivatives of existing ideas or entirely new concepts, predicted to be applicable in a social context. This task also aims to prepare students for participation in the national-level Student Creativity Program (*Program Kreativitas Mahasiswa* - PKM). Students' ideas are refined into a program presented in the form of a proposal, which will be submitted for the PKM competition to secure funding from the Ministry of Higher Education.

E. Mini Research (MR)

Mini research involves conducting small-scale or limited research. Students and lecturers discuss and determine relevant research topics. If students choose their own research topics, they must obtain lecturer approval. Students are required to collaborate in groups to develop a mini research design but report the research findings individually. The mini research must minimally include: i) research questions, hypotheses, or assumptions, ii) theoretical framework, iii) instruments used for data collection, iv) data collection process, v) data analysis, and vi) conclusions based on the analysis or discussion of research data.

F. Project (P)

The final assignment is the project. Students at Universitas Negeri Medan are required to develop projects that produce models or products with ethical, aesthetic, social, cultural, and economic value. This task requires students to apply knowledge transfer to solve problems and communicate the results of their projects effectively.

In carrying out these tasks, students are prohibited from committing plagiarism or falsifying data. Universitas Negeri Medan imposes strict sanctions for such violations to instill honesty and discourage data falsification. If it is proven that the task was completed by another party, the task is canceled, and the student's grade is marked as a repeat for the course in question. If such misconduct is performed by Universitas Negeri Medan students, both parties involved will face equal sanctions. For plagiarism, whether partial or complete, the task will be annulled, the student's grade will be marked as a repeat for the course, and they will face suspension for one semester, prohibiting participation in the next semester's courses (Gultom[4], 2017).

G. Case Method and Team-Based Project

According to the Key Performance Indicators (IKU = Indikator Kinerja Utama) 7 of higher education institutions in Indonesia, classroom learning must be collaborative and actively participatory by all students. Throughout the learning process, lecturers are required to apply appropriate methods, including case method and project-based learning.

The case method consists of: i) students acting as "protagonists" or key actors attempting to solve a case or problem; ii) students analyzing the case to build recommended solutions, assisted by group discussions to test and develop the solution design; and iii) the class actively discussing, with the majority of the conversation led by students. The lecturer's role is to facilitate by guiding the discussion, asking questions that help, and directing students to find solutions to the problems at hand, while also observing the learning process in class or during discussions.

Team-Based Project: i) The class is divided into groups of at least three to five students to work together on a task within a specified period; ii) The groups are given a real problem or complex question and are provided time to develop a work plan and a collaborative model; iii) Each group prepares a presentation or final work to be shown to the lecturer, class, or other audience members who can provide constructive feedback. The criteria for final grade evaluation specify that 50% of the final grade must be derived from the quality of class participation (case method) and/or the final presentation of project-based learning (Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan Republik Indonesia[5], 2021:34).

In other words, the case method is a participatory learning approach centered on discussions to address cases or problems. This method enhances students' critical thinking, problem-solving,

communication, collaboration, and creativity. On the other hand, the team-based project method revolves around real-world, project-based learning tasks that challenge students to collaboratively resolve everyday issues. Key points in designing a syllabus based on project-based learning and case method should take into account the program learning outcomes (CPL = capaian pembelajaran lulusan) of each study program, ensuring that the designed learning process meets the CPL and addresses the needs of businesses, industries, and the job market (Admin Unimed[6], 2022:1).

Each student is required to complete the six tasks and produce learning outcomes. This paper outlines the efforts to generate outcomes in the *Wissenschaftliches Schreiben* course, with the following questions: i) How to write a scientific paper in English or in German? ii) How to present a paper at a seminar?

2 Method

The *Wissenschaftliches Schreiben* course was held during the odd semester of the 2022/2023 academic year as part of the German Language Education Study Program S1 under the Faculty of Languages and Arts at Universitas Negeri Medan. A total of 23 students participated in the course, all of whom were in their fifth semester. The course consisted of 16 meetings, including mid-term and final exams. Each meeting lasted 100 minutes. Students accessed the course materials through the e-learning system at e-learning.fbs.unimed.ac.id and submitted assignments through the same link (Tim Dosen Mata Kuliah *Schreiben B1*[7], 2023). The planned learning product was a scientific article. Students wrote the scientific articles following the guidelines issued by the ISLALE 2023 committee for article writing.

The final assessment of the learning outcomes was submitted to the article review team from the ISLALE 2023 committee. If the article submitted by the student was approved for presentation, it meant the article was of good quality. If the article was not yet suitable for presentation, the student was required to revise the article until it passed the review team's standards. Articles that were presented at the seminar were considered to have met the requirements for publication in the proceedings. Therefore, the student groups received a grade of B or A.

3 Results and Discussion

The *Wissenschaftliches Schreiben* course, worth 2 credit points (SKS), is a mandatory course for all students, consisting of both theory and practice. This course is typically offered in the fifth semester. The course lasts for 16 weeks, or one semester. The *Wissenschaftliches Schreiben* course presents material on scientific writing techniques, particularly for thesis writing. After completing the 16 meetings, students are expected to master the skills of scientific writing and be able to write scientific papers for Chapters I, II, III, IV, V, and the bibliography, along with additional competencies for writing articles for publication in journals or proceedings. The graduate learning outcomes (CPL) of this program, which are assigned to this course, include: i) Students should demonstrate responsibility for their work in the field of German language education, ii) Students

should master the concepts of the German language independently, iii) Students should be able to use the German language, both orally and in writing, in everyday, academic, and professional contexts, and be able to produce creative services and products in the field of the German language and its teaching, translation between German and Indonesian, and tourism in North Sumatra.

After completing the *Wissenschaftliches Schreiben* course, students are expected to be able to: i) Understand the theory of scientific writing, ii) Use plagiarism detection software, iii) Identify the structure and format of Chapters I to V, and the bibliography for writing a thesis in German, iv) Write simple scientific papers for journals or proceedings.

3.1 Course Stages

Meeting 1: At the beginning of the first session, the lecturer explained the syllabus, the scope of the *Wissenschaftliches Schreiben* course, its objectives, benefits, teaching methods, assignments, mid-term and final exams, assessment rubrics, and rules and sanctions related to the course. At the end of the session, the lecturer and students successfully agreed on and signed the course contract. Students were required to complete six integrated tasks (routine tasks, critical book report, critical journal review, idea engineering, mini research and projects) and produce a learning outcome in the form of a scientific article that was presented in a seminar and published in the form of a seminar proceedings book with an ISBN.

Meeting 2: The lecturer and students used plagiarism detection software with the goal of encouraging students to act honestly. Students were reminded not to commit plagiarism, not to lie in writing their scientific work, and not to claim others' work as their own. Students were required to be honest in completing their scientific writing tasks.

Meetings 3 and 4: The lecturer introduced scientific articles in both German and English to the students. Students identified the expressions that would be used to write a scientific paper. The lecturer also introduced the guidelines for writing scientific papers, published by the organizing committee of the 2023 ISLALE international seminar, both national and international, to be held at Universitas Negeri Medan or abroad, including both domestic and international seminars. In Meeting 3, project-based learning was specifically explained, which consists of: i) Introduction: In the introduction, the lecturer explained the project of writing a scientific paper to be presented and published in a journal or seminar proceedings in 2023. ii) Assignment: The lecturer divided the students into groups, each consisting of three to five students. Students were allowed to choose their own group members. The lecturer guided students to produce scientific papers according to the themes being studied and the themes offered by the ISLALE 2023 committee. In this phase, students were the main actors in the project-based learning. The lecturer posed several questions to guide students in producing their scientific papers. These questions included: What is a scientific paper? What are the requirements for a scientific paper? Can the source material be based on research findings? Can new ideas or thoughts be made into a scientific paper? How many words should a scientific paper contain? What is meant by a guideline? Have you ever read a seminar brochure? How long should a presenter take to present their paper? What is the cost to attend a seminar? How is an article reviewed? How long does it take for an article to be published in proceedings after the seminar? iii) Project Execution: The lecturer directed each group to choose a different theme to

ensure a variety of project products. The lecturer mentored each group during the project execution and also monitored the progress. While monitoring, the lecturer assessed the process to ensure the course learning outcomes were being achieved. The lecturer also provided constructive feedback to help students improve and enhance their competencies. iv) Presentation of Project Results: Each group was given the opportunity to present their article in front of the class. Then, students discussed the feasibility of the presented article. Students could ask questions, provide comments, or suggest improvements so that the article discussed in class would be better. The time allotted for discussion was 100 minutes. All groups were required to present their articles before submitting them to the committee. v) Evaluation and Reflection: The lecturer and students collaboratively evaluated the articles and the execution of the *Wissenschaftliches Schreiben* course. Students were also asked to write critiques and suggestions for improving the course in the upcoming year.

Meetings 5 and 6: The lecturer guides students to find and identify expressions in the abstract and Chapter 1 of their final thesis (*skripsi*). Afterward, students use the expressions found in the introduction section. The introduction includes: background, problem identification, problem limitations, problem formulation, research objectives, and benefits. The lecturer brings several thesis papers into the classroom as teaching material. Students read, review the content, take notes on the expressions found in Chapter 1, and discuss the content of Chapter 1.

Meeting 7: The lecturer guides students to find and identify expressions in Chapter 2 of their final thesis (*skripsi*). Afterward, students try to use these expressions in the theoretical framework and conceptual framework sections. As a routine task, students are required to read Chapters 1 to 5 and pay attention to the formatting of the references section.

Meeting 8: Students take the mid-term exam (*Zwischenprüfung*), which addresses topics that are suitable to become research problems or paper themes. The mid-term exam lasts for 100 minutes in the classroom.

Meeting 9: The lecturer and students collaboratively discuss the results of the mid-term exam, focusing on identifying suitable themes for a scientific article or problems that can be further developed into a research study or scientific paper for seminar presentation.

Meeting 10: The lecturer guides the students to find and identify statements in Chapter 3 of their final thesis. Afterward, the students attempt to incorporate these statements into the methodology section of their research. The methodology chapter includes: the research method used, the research period, the research location, the research subjects or objects, research instruments, data collection techniques, and data analysis.

Meeting 11: The lecturer guides the students to find and identify statements in Chapter 4 of their final thesis. Afterward, the students attempt to incorporate these statements into the results and discussion section.

Meeting 12: The lecturer guides the students to find and identify statements in Chapter 5 of their final thesis. Afterward, the students attempt to incorporate these statements into the conclusion and recommendation section.

Meetings 13 and 14: The lecturer guides the students in writing scientific papers based on the article writing guidelines published by the ISLALE 2023 international seminar committee. Then, the lecturer of the *Wissenschaftliches Schreiben* course requests the assistance of an English lecturer to provide feedback and corrections according to the scientific article writing standards in English. The English lecturer referred to in this text is the one who teaches the English course to fifth-semester students in the German Language Education Study Program, Faculty of Language and

Arts, State University of Medan, in the odd semester of the 2022/2023 academic year. After the students make revisions to their papers, the papers are submitted to the ISLALE 2023 committee for review to determine if the papers are suitable for the seminar.

Meeting 15: The lecturer guides the students in preparing PowerPoint presentations for their article presentations. Each group is given 10 minutes to present their article, followed by 5-7 minutes for questions and answers. The lecturer and students provide feedback on the PowerPoint, such as: font type, font size, font color, background color, design, transitions, animations, slide show, and presentation points.

Meeting 16: The students complete the final exam (*Endsemesterprüfung*) that consists of the introduction section of the article presented at the ISLALE seminar in 2023.

3.2 Course Assignment

The assignments agreed upon between the lecturer and the students are as follows: i) The students produce a written paper or scientific article to be presented at a seminar, ii) The students present their article at a national or international seminar, either held within the country or abroad, iii) The students publish the article in the form of a proceeding with an ISBN, in accordance with the requirements set by the ISLALE 2023 committee. If the students fulfill these agreements properly, they will receive an A grade for the *Wissenschaftliches Schreiben* course and will be considered to have passed the course. If the students do not fulfill the agreement, they will not receive a grade and will be required to retake the *Wissenschaftliches Schreiben* course in the next semester or the following year, if the course is offered again by the German Language Education Program.

Before meeting 15, the students had produced a draft of their article, which was then discussed in class. Both the lecturer and the students asked for assistance from an English lecturer to provide suggestions and feedback on the article produced by the students. After the revisions were made, the students registered as speakers for the ISLALE 2023 seminar. Once the students received a notification that their abstract was accepted, they paid the seminar fees and submitted their full article to the ISLALE committee.

During the seminar, all students were required to attend online and present their articles in turn. Students were expected to dress appropriately and follow the seminar's rules and regulations. The students received their presentation schedules for the afternoon session. After the presentation, students received feedback and suggestions from the moderator and seminar participants. The students took note of all constructive input. Participation in the seminar was a valuable moment and experience for the students, as it gave them the opportunity to present in English.

At the end of the course (Meeting 16), almost all the students had successfully presented their articles online via Zoom. Only one student failed to complete their paper because they withdrew from the course or discontinued their studies. All the articles that were presented were published in the Proceedings of the 5th International Seminar on Language, Art, and Literature Education (ISLALE). The seminar was held on November 6, 2023, organized by the Faculty of Language and Arts, Universitas Negeri Medan. All the articles can be viewed at the following link: https://isbn.perpusnas.go.id/Account/SearchBuku?searchTxt=978-623-8150-51-

9&searchCat=ISBN. Additionally, all the articles were published in a proceedings book and have an ISBN number: 9786238150649 (Panitia ISLALE[8], 2023).

3.3 Learning Outcomes

The articles that were successfully presented by the students at the seminar on November 6, 2023, consisted of 6 (six) article titles. These six titles were: i) *Introduction to German Language through the MBKM Kampus Mengajar 5 Program at SDN 060948 Medan Labuhan* (pages 1-5); ii) *Implementation of MBKM Kampus Mengajar Program in Elementary School 064034 in Medan City* (pages 58-65); iii) *Implementation of MBKM Campus Teaching on Guided Reading Literacy Program at SDN 067260 Medan in 2023*; iv) *Implementation of the MBKM Kampus Mengajar Program on English Speaking Skills through the WTAL Community at Private Junior High School Bulugok Samosir* (pages 423-430). Articles i-iv are reports on the implementation of the *Merdeka Belajar Kampus Merdeka* (MBKM) program carried out by students of the German Language Education Program. This MBKM program is funded by the Ministry of Education of the Republic of Indonesia in 2023. v) *Use of Falou App as a Medium for Learning Speaking Skills in German* (pages 149-152); vi) *Use of TikTok as a Media for Learning German Grammar in the Unimed German Language Education Program* (pages 431-435). Articles v and vi are theoretical reflections and studies on teaching German in schools.

3.4 Learning Barriers

Various challenges were faced by both the lecturers and the students during the project-based learning process, including: i) Both lecturers and students had limitations in speaking and writing in English, difficulty in understanding English references, and limited vocabulary in academic English. These challenges led to the need for extra time to understand the content of the articles and to find references that aligned with the theme of the scientific articles. To expedite the article-writing process, both lecturers and students sought help to speed up the writing. The assistance included support from the article review team from the ISLALE committee. The Review Team from the ISLALE committee received the articles, assessed them, provided suggestions to the students for article revisions, and informed them of the sections that needed improvement to make the article ready for presentation. The use of dictionaries and translation apps from Indonesian to English and vice versa also contributed to the completion of the scientific articles. ii) Another challenge faced by the students was the time needed to understand the writing guidelines issued by the ISLALE 2023 committee. Initially, the guidelines were translated into Indonesian, then all students received copies and discussed them in class. iii) Students also needed time to prepare before presenting their scientific papers in English. A few days before the seminar, each student practiced presenting their group article in English. Students who were fluent in English and had accurate pronunciation were chosen to begin the presentation. This was done so that other students could continue their presentations confidently and without making mistakes. iv) Students also needed funds to purchase internet data packages. v) Students paid the seminar fees, and

vi) Students had to find locations or places with a strong internet signal to ensure there were no connectivity issues during the seminar. Students also prepared batteries and power banks to address other issues, such as power outages.

4 Conclusion

From the findings and discussion, it can be concluded that the application of project-based learning provided students with the opportunity to present scientific articles in English at a formal seminar. This approach enabled students to produce scientific works published in a proceeding. Six scientific articles were successfully presented by the students at the ISLALE 2023 seminar. The articles, revised based on feedback from moderators, seminar participants, and the review team, were subsequently published in a proceeding registered with an ISBN.

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