Integration of Mini Research and Project Assignments

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Abstract—The research objective is to map and analyze mini-research and projects assignments that integrated between courses-this research conducted at the Department of Geography Education, Faculty of Social Sciences, Universitas Negeri Medan. Population and samples of this study are all courses contained in the Indonesian National Qualification Framework (KKNI) curriculum at Department of Geography Education. This research is a qualitative descriptive study. Data collection techniques were carried out through Group Discussion Forums and filling out questionnaires. Data analysis uses the task relationship matrix between courses. The effectiveness of the assignment is judged to be based on the number of course assignments that can be integrated. The results of the study show that more than 70% of mini-research and projects assignments in the odd semester can be integrated. Practice courses that used as liaison subjects are Information and Communication Technology in the 1st semester, Survey and Mapping in the 3rd semester, and Geographic Information Systems in the 5th semester. Mini-research assignments and projects can be streamlined through the integration of tasks across subjects.

Keywords—Assignment Integration, assignment of Mini-Research, Project Assignment.

I. INTRODUCTION

The application of the Indonesian National Qualifications Framework mandates that all learning outcomes set in higher education must refer to the needs of the business world and the industrial world. Therefore, the establishment of curriculum at the level of study programs and majors must be based on tracer study results and input from professional associations[1], [2].

In response to this, Medan State University conducted a series of reinforcement, especially in the learning process initiated in 2012 and 2016 the Indonesian National Qualifications curriculum began to be implemented[3]. One of the strengthening of learning done at Medan State University is through the implementation of 6 forms of tasks, namely routine tasks, critical book reports, journal reviews, engineering ideas, mini research, and project assignments. The application of project base learning can increase motivation and learning outcomes in the course[4]. In its implementation, a series of tasks were carried out on each subject attended by students. Based on the results of the 6 task implementation evaluations, several forms of tasks such as Mini Research and Project Tasks have constraints for students which are less efficient because they require substantial costs because of the different mini research locations and project assignments in each subject[5], [6].

Tasks in the form of mini research and projects are needed to achieve learning outcomes by the demands of the Indonesian National Qualifications curriculum[5], [6]. Strengthening the aspects of skills is also strongly influenced by the intensity of the mini-research assignments and projects carried out by the students. This is the main reason why mini-research and project tasks must be carried out. However, on the other hand, the implementation of this form of the task requires a fairly high cost, especially done differently for each subject. The experience of carrying out this mini research assignment is not only done at the location radius in the city but also outside the city if indeed the location needed is not found around the campus. Consequently, students must pay a minimum cost for transportation and accommodation while conducting mini research and projects.

Starting from a case, this study tries to find solutions to the problems that developed in the mini assignment of research and projects applied in the Department of Geography Education. This study uses the approach of integration of several mini-research assignments and projects given to several courses. Integration of course assignments will make practical subjects a link for other course assignments. This is done because practicum courses generally emphasise skills aspects so that they can be used as a technique of collecting data on mini research and project assignments.

II. METHOD

This study uses the R & D approach by by Borg & Gall ([7]) This research will be conducted at the Geography Education Department of the Faculty of Social Sciences, Universitas Negeri Medan during the odd semester of the 2018/2019 Academic Year. The population, as well as the sample in this study, are all eyes found in the Geography Education Department which refers to the KKNI curriculum. This research is a descriptive qualitative study, which uses variables: a) the relevance of task learning outcomes, b) criteria for assignment location, c) data requirements for the assignment given, and d) the efficiency of funding needs in completing tasks.

Data collection techniques used in this study are:
1. Documentation

The documentation technique carried out in this study was to collect Semester Learning Plan (RPS) data for each subject in the Geography Education Department. The documents will then be identified to find out the learning outcomes, location criteria for mini-research assignments and projects, data requirements on mini-research assignments and projects, and estimation of cost requirements in implementing assignments.

2. Instruments

The instrument used in this study aims to map the structure of mini-research assignments and projects in each subject in the Department of Geography Education. The instrument used is divided into 2, namely the task identification instrument practicum course and non-practicum.

3. Forum Group Discussion (FGD)

The FGD was conducted in research to aim to confirm the substance of the assignments contained in each subject. Also, the FGD also aims to formulate assignments that can be integrated.

The data analysis used in this research is a qualitative descriptive analysis. The analysis technique is carried out by compiling a matrix of the interrelationships between assignments. Effectiveness and efficiency of assignments will be measured by how many tasks can be integrated. Presentation of the results of data analysis is displayed in the form of narratives, tables/matrices, and graphs.

III. RESULT AND DISCUSSION

Based on the results of the curriculum document identification, in the odd semester of the 2018/2019 academic year the Department of Geography Education (JPG) Unimed applied two types of curriculum namely Block 2007 Competency-Based Curriculum (KBK) applied to students with years before 2016 and the National Qualification Framework Curriculum (KKNI) which is applied to students entering the year starting in 2016. The research itself is devoted to the KKNI curriculum which has been applied to six forms of assignment.

In general, the distribution of courses in the KKNI curriculum in JPG experienced a reduction in the number of subjects from the previous 79 courses (KBK Curriculum Block) to 71 courses (KKNI Curriculum)[8][3]. The total courses that must be taken by students to meet the Bachelor requirements are 150 SKS as many as 69 courses consisting of 62 compulsory subjects and seven elective courses. Comparison Charts of Practice and Non-Practice Courses in JPG can be seen in Figure 2.

Look at the distribution each semester; practice courses appear every semester. The semester with the most practice courses is the 4th, fifth and 7th semester, which are four courses each. The distribution of practical courses in each semester can be seen in Figure 3.

**TABLE I. COMPARISON OF NUMBER OF SUBJECTS BETWEEN KBK BLOCK CURRICULUM AND KKNI CURRICULUM IN GEOGRAPHY EDUCATION DEPARTMENT**

<table>
<thead>
<tr>
<th>No.</th>
<th>Courses Type</th>
<th>KBK Block Curriculum</th>
<th>KKNI Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mandatory</td>
<td>63</td>
<td>62</td>
</tr>
<tr>
<td>2</td>
<td>Choice</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>79</td>
<td>71</td>
</tr>
</tbody>
</table>

Source: [9]

In the Odd Semester 2018/2019, there are 29 courses presented and can be followed by students. The courses presented are compulsory subjects. The distribution of the number of courses in the odd semester 2018/2019 can be seen in Figure 1.

![Fig. 1. Comparison of Number of Courses odd Semester 2018/2019](image1)

![Fig. 2. Comparison Charts of Practice Courses and Non-Practice in JPG](image2)

Based on the results of the distribution of courses and Semester Learning Plans (RPS) courses, it can be identified that there are 21 (30%) courses which are practical courses. The practice course consists of 17 (24) compulsory subjects and 4 (6%) compulsory subjects. Comparison Charts of Practice and Non-Practice Courses in JPG can be seen in Figure 2.
Based on the analysis of subjects in the Odd semester of the 2018/2019 academic year, it can be identified that there are ten courses in practice courses (Figure 3). However, because the application of the KKNI curriculum began to be implemented since 2016, the courses were carried out in many courses in semester 1, 3, and 5. Whereas the courses in the 7th semester had not been implemented because there were no students who could take the course. The practical courses held in the 2018/2019 odd semester are presented in Table 2.

TABLE II. DISTRIBUTION OF PRACTICAL COURSES ON ODD SEMESTER 2018/2019

<table>
<thead>
<tr>
<th>No.</th>
<th>Mata Kuliah</th>
<th>Credit</th>
<th>Status</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Information and Communication Technology</td>
<td>2</td>
<td>W/Pr</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Survey and Mapping</td>
<td>2</td>
<td>W/Pr</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Geographic Information System</td>
<td>3</td>
<td>W/Pr</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>2nd Field Work Course</td>
<td>2</td>
<td>W/Pr</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>Micro Teaching</td>
<td>1</td>
<td>W/Pr</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Disaster Geography and Mitigation</td>
<td>3</td>
<td>W/Pr</td>
<td>5</td>
</tr>
</tbody>
</table>

Information: W: Mandatory, Pr: Practice

The table above shows that in semester 1 and three there is only one course that becomes a practical subject. While in semester five there are four courses which are classified as practical courses. All courses are compulsory subjects. Based on the assignment schedule, it can be identified that lecturer lecturers generally give mini-research assignments in the 9th to 11th weeks. However, there are also two subjects whose mini-research assignments were given in the 3rd week. The distribution of time for giving mini-research assignments can be seen in the graph below.

Fig. 3. Distribution of Practice Courses for Each Semester

The graph above shows that most lecturers provide mini-research assignments at week nine which is as much as 56%. At least the lecturers gave mini-research assignments at week 11, which was only 6%. Based on these results it can be seen that most lecturers provide mini-research assignments after students get assignments in the form of routine assignments, critical book report (CBR), and critical journal report/journal review (CJR / JR). During the project assignment, lecturer lecturers gave project assignments in the range of the 5th to 13th week. Most lecturers provide project assignments at week 13, namely 72%. While at the very least, lecturers gave project assignments at the 8th week. The distribution of time for assigning project assignments in JPG can be seen in Figure 5.

Fig. 4. Chart of Mini-Research Assignment Schedules.

Based on the location criteria for mini-research assignments, the most dominant is the combination (urban and rural areas) which is 61%, and there are no subjects whose project location is only in rural locations. These results indicate that, in general, mini-research assignments provided by lecturers are more flexible in determining locations. So that in its implementation, students can determine the location of mini-research according to their ability. This also shows that, from the aspect of location, the integration of mini-research assignments between courses is possible, especially for courses that are more flexible. The distribution of criteria for the location of mini-research assignments can be seen in Figure 6.

Fig. 5. Graph of Project Assignment Schedule
In the project assignment, the location criteria given by the lecturer were also more dominant as a combination between rural and urban areas, namely 78%. No project assignments found which criteria are only rural. The criteria for the location of project assignments, generally related to the location used as mini research, so that the implementation of the integration model between courses is possible.

Based on the output of the product, the entire output of the mini research assignment given by the lecturer is the form of a research report. There were 72% of subjects whose mini-research assignments produced only mini research reports and 28% in the form of reports and articles. Product articles produced from this mini research have even been published in nationally accredited journals. Distribution of forms of mini-research product output can be seen in Figure 7.

Based on the analysis of external products, it can be seen that the products produced through project assignments are in the form of maps, videos, posters, and learning Plan Document (RPP). The most dominant output product is a poster, which is 39% and the least product is in the form of RPP, which is 16%. The percentage distribution of project task output products can be seen in Figure 8.

Based on the results of the analysis of the learning plan document, FGD, and external relevance analysis in each subject, then three practice courses were established which were the subjects of the link in the integration of mini research and project assignments. The courses are (1) information and communication Technology in semester 1; (2) survey and mapping for semester 2; and (3) field work lectures for semester 3. The integration model of mini research and project assignments in odd semester courses in the Geography Education Department of Medan State University as shown in Figure 9.

The model shows that mainly mini-research assignments and projects in the odd semester can be integrated between courses. Six courses can be integrated into semester 1, six courses in semester 3, and seven courses in semester 5. This model can be implemented if each lecturer gives the assignment time. In mini-research assignments, the ideal time for assigning assignments is at week nine while on project assignments there can be given the 13th week. Location determination refers to the location specified in the subject, so that all courses included in the integration network will adjust to that location. The assignment of mini research and project
assignments can streamline time, costs, and energy for students.

IV. CONCLUSION

Based on the results of the study it can be concluded that the practice course is very relevant to be used as a subject in the integration of mini-research assignments and projects. Nearly 70% of mini-research assignments and projects in courses presented in the 2018/2019 odd semester can be integrated. Integration of mini-research assignments and projects in courses is very well used to streamline the preparation of student assignments.

REFERENCES


