Design of Teaching Materials in Sports Statistics Course Based on a Contextual Approach in the Faculty of Sport Science

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Design of Teaching Materials in Sports Statistics Course Based on a Contextual Approach in the Faculty of Sport Science

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Abstract. This study aims to produce teaching materials for statistical subjects in sports based on a contextual approach in the Faculty of Sports Science. With this product, it is expected to help in improving students' understanding according to the learning outcomes that have been set. This design will generate, learning outcomes, study materials, teaching materials, syllabus. Designing device as a basis for making further teaching materials. This study uses a 4D development model which is in the stages of defining, designing, developing and distributing. The implications of the design of this teaching material facilitate the development of teaching materials for statistical subjects based on contextual approaches.

Keywords: Design, Statistics, Contextual.

1 Introduction

Statistical courses at the Faculty of Sport Sciences are subjects that determine their competence is logical and creative thinking. The aim of this course is that students are able to apply and use data for the completion of the final project which starts from the introduction of data, making graphs, analyzing data. This course is a support for the completion of the thesis.

As a compulsory subject, statistical courses become frightening for students, so that the determined competence cannot be achieved. Many of the factors that caused it were a number of low levels of intelligence, less effective ways of learning, lack of motivation and a low level of discipline and the background of the department was IPS when in high school. The next factor is the lecture method delivered by the lecturer is still monotonous. As well as the lack of teaching materials used. The source books used are still general books on statistics. In the book all provide examples in general. No one uses an example of sports. As a result students are increasingly difficult to understand the contents of the book let alone be able to be applied to help complete their final assignment. Lecturers who teach are still not using books that are accompanied by applications in sports fields.

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the book all provide examples in general. No one uses an example of sports. As a result students are increasingly difficult to understand the contents of the book let alone be able to be applied to help complete their final assignment. Lecturers who teach are still not using books that are accompanied by applications in sports fields.

Competency to develop contextual teaching materials needs to be done for statistical course lecturers. We recommend that teaching materials designed can accommodate the needs of the three study programs in the Faculty of Sports Science. Teaching materials for statistical subjects are carried out with preliminary research, namely the design of teaching materials for statistical subjects. To need to do the design of teaching materials for statistical subjects based on a contextual approach through the KDBK research at the Unimed Faculty of Sports Science.

2 Research methods

This research was carried out at the Faculty of Sports Science, Medan State University Jl. Willem Iskandar Psr V. Medan Estate This research uses this research using research and development approach or development research. Borg and Gall (1983) suggested that the purpose of this research and development was to produce product designs. At this stage of research the development is still at the design stage. This study begins with an analysis of the needs of users as material for redesigning the curriculum (GBPP / syllabus). Followed by collecting materials for the design of teaching materials consisting of: a) learning outcomes, b) study materials (attitude aspects, knowledge aspects and skill aspects), c) teaching materials, d) syllabus, e) learning tools.

3 Results and discussion

3.1 Result

In detail the efforts to develop teaching materials for the subjects of growth and development of learning the motion can be stated as follows:
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3.1.1 Needs analysis

In this first phase, various information related to statistical courses is needed. This information can be in the form of; collect data from stakeholders, statistical experts, lecturers of statistics courses, analysis of RPP and Syllabus used so far. This information gathering step can be done by reading the syllabus, RPP, field observations, interviews with lecturers, and statistical experts.

3.1.2 Planning

Field data findings are the basis for planning development activities, so that the development of learning is carried out in accordance with the needs of the field. Based on the results of

interviews with lecturers, statistical experts and students, the development objectives can be determined in the form of teaching materials for statistical subjects based on contextual approach. Because of the limitations of research time, this research activity is still in the design of teaching materials consisting of: 1) learning outcomes, 2) study materials (attitude aspects, knowledge aspects and skills aspects), 3) teaching materials, 4) syllabus, 5) learning tools.

3.1.3 Product development

Product development is emphasized in the preparation of preparing a syllabus, lesson plans and lecture contracts that are adapted to the syllabus. In the example above, product development is in the form of teaching materials for statistical subjects in sports, seminars for revision of the syllabus and college contracts. At this stage a syllabus design is made which is a miniature of the conditions needed in the statistical courses in sports. That product will be used in compiling lecture contacts. Product preparation is carried out by researchers based on input from experts and stakeholders and accompanied by experts in their fields

4. Trial of small group teaching materials

After the development draft for syllabus, lecture contracts, as well as the material for growth and development of learning child movement was completed, a model was tested with a focus group discussion to revise the draft materials that were almost completed. The pilot activity l aims to obtain data, information, and input regarding the feasibility of the syllabus, lecture contracts in terms of material feasibility, completeness of presentation and completeness of presentation.

3.1.4 First product revision

The results of the focus of the discussion group draft teaching materials were analyzed to be refined, in accordance with the input provided by experts. With the revision of the three indicators, it is expected that the syllabus products and lecture contracts will be more easily digested by students, so as to be able to achieve the achievement of competence in statistical lectures in sports.

Trial design of large group teaching materials

The revised product was discussed by inviting 12 people consisting of statistical experts, sports lecturers. Test and evaluate readability, accuracy of content and exploration. This trial phase is a process to find out the effectiveness of the design of teaching materials for statistical lecture courses in sports that have been developed through various reactions from various parties to the syllabus and lecture contracts for the growth and development of learning the motion.

3.1.5 Second product revision

The results of the seminar which involved 12 people from various fields of sports, the draft teaching materials were analyzed to be refined, in accordance with the input given by experts in the seminar.

4 Discussion

Development of teaching material design consisting of teaching material design consisting of: 1) learning achievement, 2) study material (attitude aspect, knowledge aspect and skill aspect), 3) teaching material, 4) syllabus, 5) learning tools. Syllabus and lecture contracts are components that need attention in lectures. a. Where is the formulation of learning outcomes that are arranged in 4 elements consisting of attitudes and values, work ability, mastery of knowledge, and authority and responsibility. Then determine structured study materials. The study material is related to the general and simple to the more complex. The material of the study of statistical subjects is designed covering aspects of attitude, aspects of knowledge and aspects of skills.

After the study material is determined, then determine the teaching material for statistical subjects in sports. The material determined is in accordance with the needs in research in sports and physical education.

The syllabus is a learning plan in a particular subject / subject / group that includes competency standards, basic competencies, subject matter / learning, learning activities, indicators, assessment, time allocation, and learning resources / materials / tools (PP 19 Year 2005 Article 20). The syllabus is a translation of competency standards and basic competencies into the subject matter / learning, learning activities, and indicators of achievement of competencies for assessment.

After determining the learning outcomes, study materials, teaching materials for the design of the next instructional material is to make teaching / lecturing devices consisting of RPS, Student worksheets and Assessment Instruments.

5 Conclusion

The development of teaching materials for statistical subjects must be based on the needs of the field, so that it will be more functional in accordance with the needs of users. These development steps can be carried out as follows: 1) conducting needs analysis, 2) planning, 2) developing products 3). focus group discussions with small groups, 4) revise product development, 5) conduct seminars with large groups, 6) revise the final product

Based on the results of the seminar in the large group, the draft was revised again to produce 1) learning achievement, 2) study material (attitude aspect, knowledge aspect and skill aspect), 3) teaching material, 4) syllabus, 5) learning tools used as guidelines in compile RPP and teaching materials.

A. Suggestions

In order for the course lectures on Statistics in sports to achieve the competencies that have been set then: 1. Lecturers of statistical courses should always develop instructional materials based on the contextual approach to teaching learning begins with the development of syllabus and lecture contracts continuously so that it increasingly increases the relevance of material related to the subject.

2. Update teaching materials with the latest book / reference sources.

3. Always involve experts, stakeholders in determining competency standards for each statistical material related to sports and physical education

4. Reviewing old materials by adding new materials tailored to the research needs in the field of sports.

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