DESIGNING NEED-BASED SYLLABUS FOR ENGINEERING STUDENTS OF BANJARMASIN STATE POLYTECHNIC

Nurfitriah(1) & NinitKrisdyawati(2)
(1) English Lecturer at Civil Engineering Dept., Banjarmasin State Polytechnic
(2) English Lecturer at Mechanical Engineering Dept., Banjarmasin State Polytechnic

Abstract: A syllabus is undoubtedly a vital aspect of a learning process. Activities done in the classroom in order to achieve certain goals are based on the syllabus. However, English syllabus for vocational higher education such as polytechnics is not provided by the government due to the unique nature of each institution. Therefore, designing a meaningful syllabus is expected to bring potential change to the teaching and learning of English at polytechnics. This case study aims to design an English syllabus for engineering students that matches the needs of students, lecturers, institution, and stakeholders of Banjarmasin State Polytechnic by consulting existing framework of didactic/pedagogical process of language syllabus design developed by Brown (2007) and Graves (1996). Data are gathered through students’ test, questionnaires, informal interviews and a survey. The research results in the formulation of goals for engineering students’ English subject. The result, formulation of goals for engineering students, is applicable to other institution with comparable situation. This topic of study is especially relevant to ESP teachers and curriculum/syllabus designers.

Keywords: syllabus design, need-based, polytechnics

Introduction
Considering the situation in English education and the global popularity of English, Banjarmasin State Polytechnic, a higher education institution located in South Kalimantan, Indonesia, tries its best to improve the English teaching process. So far the results of the English courses at Banjarmasin State Polytechnic showed a considerable difference between in-class performance and the actual language skills. The students do well on their exercises and assignments, but their performance appears to be only relative, as the students have difficulty actually using the language. Students are able to do tasks they are generally given, but when they are asked to further elaborate on their task, they fail. It seems that they learn only what they are taught, and only literally.

Teachers of English at Banjarmasin State Polytechnic have already tried various activities and methods in teaching their subject one of which is by designing a good syllabus to be used in teaching the students. A syllabus that is interesting and meaningful to students will increase motivation and in the end will contribute to achieving the goals of the course. However, English syllabus for vocational higher education such as polytechnics is not provided by the government due to the unique nature of each institution. Therefore, designing meaningful syllabus which combines the needs of all parties involved – the students, the lecturers, the institution and the stakeholders – might be the answer to the problem described earlier.

Designing syllabus
A syllabus is undoubtedly a vital aspect of a learning process. Activities done in the classroom in order to achieve certain goals are based on the syllabus. There are some important steps that must be included in the process of creating a syllabus. This work tries to design a syllabus that matches the needs of students, institution and stakeholders of Banjarmasin State Polytechnic by consulting existing frameworks in language teaching.

Brown in Teaching by Principles: An Interactive Approach to Language Pedagogy (2007) described a framework that breaks down the process of curriculum and course development into components and subprocesses. A framework of components is useful for several reasons: It provides an organized way of conceiving of a complex process; it sets forth domains of inquiry for the teacher, in that each component puts forth ideas as well as raises issues for the teacher to pursue; it provides a set of terms currently used in talking about course development and thus a common professional vocabulary and access to the ideas of others (Graves, 1996). The framework provided by Brown consists of identifying situation, context, and students; analyzing needs; formulating goals; determining course content, sequences, and structure; designing course units and modules; constructing lesson plans; teaching; assessing; and revision as basic steps normally followed in designing a syllabus. For the purpose of this research and due to some limitations this work only follows four first steps of Brown’s framework.

Design
This is a qualitative case-study which aims at designing an English course syllabus for engineering students at State Polytechnic of Banjarmasin. Designing a syllabus for this class can also be the model for
designing a curriculum for other classes from other departments and polytechnics. One can adopt the steps for designing a syllabus which are used in this study with some adjustment according to the needs. The object of investigation is to design a syllabus that fits the needs of the students and is not contrary to the needs of graduates, non-English lecturers, stakeholders and the institution.

**Data and Participants**

Data was gathered from the students, the lecturers, the working graduates, the stakeholders and the institution. Students taken as the participants are from classes of engineering. The graduates are engineering graduates who are currently working in various companies related to engineering works. The lecturers participants are lecturers taught non-English subjects especially core subjects for engineering students of Banjarmasin State Polytechnic. The stakeholders are both public and private companies which employed the graduates of the State Polytechnic of Banjarmasin. The institution, the State Polytechnic of Banjarmasin is a vocational institution at a tertiary level which provides professional mid-level graduates. The data are collected using questionnaires, surveys, informal interviews and tests.

**Result and Analysis**

By following the process of designing a syllabus described by Brown (2007) syllabus consist of a list of goals and objectives of an English course for engineering departments have been formulated (Table 1 is a sample of goals and objectives for the first semester). The goals and objectives are chosen based on the consideration of the needs of all related parties i.e. the students, the lecturers, the graduates, the institution and the stakeholders and are ordered according to language acquisition stages.

<table>
<thead>
<tr>
<th>Topic/Theme (Unit)</th>
<th>Course Goals/Endterms</th>
<th>Objectives</th>
<th>Lesson Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking about numbers</td>
<td>(I) Can use ordinal and cardinal numbers in the appropriate context</td>
<td>(I) Can understand and extract information from short passages dealing with numbers (ordinal and cardinal)</td>
<td>Listening: Can understand information about order numbers, dimensions and other number-related work in engineering field in a spoken text</td>
</tr>
<tr>
<td>Reading a manual/instructions</td>
<td>(I,G) Can understand a simple manual/instructions</td>
<td>(I,G) Can understand a simple manual/instructions in civil engineering field</td>
<td>Listening: Can reproduce talk about numbers based on examples and situations provided at the workplace, Speaking: Can mention the size of constructions at work</td>
</tr>
</tbody>
</table>

There are essential alterations of the syllabus proposed in this study with regard to the currently used syllabus. Objectives which are formulated functionally offer real usage of the target language. The students have the opportunity to learn the language by using it, not by learning it. Hence it is expected that the students will be more motivated since the objectives are formulated in such a way that they feel they use the language, not study about the language. The second significant change to the currently used syllabus is that the content was ordered based on the building and recycling principles. The students encounter objectives based on the levels of difficulty. The recycling principle repeats the content in new ways, providing the students the chance to encounter skills that they have mastered in previous objectives. The third change is the more weight given to the assessment. Two kinds of time-related assessment are proposed namely the achievement tests and the portfolio.
Providing these tests is expected to bring some improvement to the students’ performance especially with regard to the portfolio in which the students are involved in the assessment by reporting their self-assessment of the performance, promoting the autonomy of the language learning. The adding of some new objectives was done to respond the opinions and suggestions from the student and the working graduates. The new objectives give enrichment to the current syllabus.

Finally, the syllabus proposed in this study is expected to be the one of the answers to the background of the research. The objectives formulated are based on the analysis of needs of the students, the lecturers, the working graduates, the institution and the stakeholders. Opinions and suggestions from the students and the working graduates as well as from the stakeholders were taken into consideration, making the syllabus a relevant and meaningful one. The institutional needs from which the objectives derived ensure that the objectives formulated functionally are at the right level, thus realistic to be taught to the students.

**Conclusion**

The new syllabus which is designed based on the needs of the students, the lecturers, the working graduates, the institution, and the stakeholders is expected to bring changes with regard to the problem of teaching and learning of English in State Polytechnic of Banjarmasin. The rift observed between the classroom performance and the real production of the target language is addressed by some major changes in the syllabus i.e.

1) the functional formulation of the objectives,
2) the building and recycling principle of content ordering,
3) the more weight given to the assessments of speaking skills,
4) the add of new objectives, and
5) the needs-based analysis for the overall syllabus design.

By considering the needs of all related parties i.e. the students, the lecturers, the working graduates, the institution and the stakeholders to the teaching and learning of English at the State Polytechnic of Banjarmasin a hopefully ideal syllabus for the given situation is created. However this assumption is not yet proven. A try-out of this new syllabus design will be required. Based on the result of the experiment evaluations on efficiency and effectiveness and revisions of the syllabus can be made. Other studies on designing various activities and trying out various approaches of language teaching with regard to this study in the future will give a great contribution to especially the local party, the State Polytechnic of Banjarmasin, and the teaching and learning of English in Indonesia in general.

**Bibliography**


