SCIENCE TEACHERS' CAPABILITY IN WRITING SYLLABUS IN ENGLISH VIEWED FROM KTSP 2006 AT INTERNATIONAL STANDARDIZED SCHOOLS

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Abstrak

Penelitian ini bertujuan untuk mengamati secara teliti dokumen-dokumen guru tentang alat pembelajaran dan untuk mengukur kesulitan yang dialami dalam menulis silabus, terutama bagi guru non-Inggris. Berdasarkan permasalahn tersebut, untuk meningkatkan kemampuan dalam penyusunan dokumen khususnya silabus. Guru sains (fisika, kimia, dan biologi) dituntut untuk mendesain silabus dalam Bahasa Inggris, dimana itu menjadi masalah buat mereka. Dari penelitian ini ditemukan bahwa guru sains sudah dapat membuat dokumen tersebut dengan baik hanya saja masih mengalami kesulitan dalam produksi kalimat, pemilihan diksi, dan penggunaan grammar. Penguasaan dalam membuat silabus dengan Bahasa Inggris adalah salah satu syarat untuk mencapai proses instruksional yang berkualitas untuk mencapai kompetensi dasar siswa terutama pada Sekolah Berstandar Internasional.

Abstract

The aim of this study is to observe critically on the teachers' document of teaching-learning equipments and to find out the difficulties in writing syllabus in English, especially for non-English teachers. Therefore, it can improve the teachers' ability in designing documents especially syllabus. Science teachers (Physics, Chemistry, Biology) should design their teaching-learning syllabus in English otherwise, it will cause serious problems for them. From the study, it was found out that the science teachers had performed good syllabus but they still meet some difficulties in using English for their teaching-learning documents, especially in producing sentences, choosing the vocabularies and the use of grammar. The teachers' mastery in designing teaching-learning documents in English appropriately is one of the requirements to gain success in carrying on qualified instructional process and accomplishing students' basic competence, especially in international standardized schools.

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INTRODUCTION

The System of National Education No. 20/2003 suggests that English is the international language which has important usefulness in a global society. As a *RSBI* school, it is advisable to use English in the daily teaching-learning activities in the classroom. In line with the need of globalization era, teachers should provide students with English in their lessons, so that they can compete in today's era. Since school-based curriculum is a curriculum which is developed and implemented in each educational unit or school, teachers have to design teaching-learning equipments which can support their activities in class. Students' basic competence should be the main goal of the school-based curriculum.

Candlin (1984) suggests that curriculum is concerned with making general statements about language learning, learning purpose and experience, evaluation and the role relationships of teachers and learners. Syllabuses, on the other hand, are more localized and are based on accounts and records of what actually happens at the classroom level as teachers and learners apply a given curriculum to their own situation. Related to Candlin's suggestion to my study, I agreed with him that syllabus are more localized and are based on accounts and records of what actually happens at the classroom. This idea supported my study that syllabus viewed from KTSP 2006 were based on the students' needs, potency and characteristics with their environment and society.

This study investigates critically on the recent syllabus designed by science teachers (Physics, Biology and Chemistry) from seven *RSBI* schools in ex-Pati Residency, how they are stuctured, the reason why they are structured in the way they do and to see how syllabus should be designed and adapted for individual learning situations to meet specific learners' basic competency.

Curriculum is a set of planning and management of goal, content, and teaching material and the ways used as the implementation guidelines of instructional process to achieve a particular educational goal. This particular goal includes national educational goal and the conformity with specification, local condition and capacity, school and students. Hence, curriculum is designed by the school which enables adaptation of educational programs with the necessity and capacity can be found in the local area. (*UU Sisdiknas*. 2003: 9). Curriculum is also defined as a sequence of learning opportunities provided to students in their study of specific content and also to achieve certain level of competence especially in Competence Based Curriculum (CBC) which is nowadays applied in Indonesia since 2004.

KTSP 2006 is School-Based Curriculum based on *Permendiknas 22/2006.* It is an operational curriculum designed and implemented in each school. School-Based Curriculum includes institutional goal, structure and contents, educational standard and syllabus (*PP* No. 19/2005. Article 1). School-Based Curriculum is developed in accordance with potential, characteristic, and the need of each school and its society surrounds its school *(Permendiknas No. 22/2006* about Content Standard).

KTSP is developed and arranged based on several principles. First, it is arranged based on the students' potential, development, needs, and importance in their environment. Second, it is various and integrated. Third, it has to respond to the science, arts, and technology development. Fourth, it should be relevant to lives' needs for now and the future. The last is continuous and overall.

Etymologically, syllabus means a "label" or "table of contents." The *American Heritage Dictionary* defines syllabus as outline of a course of study. A syllabus should contain an outline, a schedule of topics, and many more items of information. However, I suggest that the primary purpose of a syllabus is to communicate to students what the course is about, why the course is taught, where it is going on, and what will be required by the students to complete the course with a passing grade.

Syllabus is a set of instructional unit. It is a learning plan and or groups subjects/themes that include certain standard of competence, basic competencies subject matter, learning activities, achievement indicators for the assessment of competency, assessment, allocation of time and learning resources. There are also some steps to be done in the mechanism of syllabus development. Firstly, comprehending curriculum reference from the content and learning process aspects. Secondly, transferring the content of curriculum reference become Standard Competence and Basic Competence. Thirdly, analyzing the previous Standard Competence and Basic Competence and comparing them with Standard and Basic Competence stated in curriculum reference. Fourthly, formulating indicators for achieving competence. Then identifying basic learning material. After that, developing learning activity based on Bloom Taxonomy. Next, determining types of assessment and determining time alloca-

tion. Finally, determining learning source.

In fact, as Nunan (1989) has proposed, different aspects of syllabus design such as content, methodology or evaluation are so entangled that they are difficult to distinguish, and therefore must be considered simultaneously when designing a syllabus. Relating grammatical, functional, and notional components in designing syllabus should be considered. Teachers are advised to be selective in determining the teaching materials for students especially in translating it into English and in using the technical language.

Standard Competence and Basic Competence are analyzed based on the Content Standard to map the learning material related to the material stretched on Basic Competence in every level. It is the teacher's duty to do this because the result of this analysis will be useful for a reference to develop learning materials. Standard Competence and Basic Competence are also used to determine the level of competences as a reference to determine indicator and learning materials. They are also used to classify simple material, the relation between learning material and the scope of the study, and the time allocation needed to achieve the indicators. The result of this analysis will be used for a reference to develop syllabus. (*Permendiknas* No. 22. 2006 article 1).

In my study, *Permendiknas* No. 22/2006 article 1 is really a basic in designing the Syllabus Assessment or the Syllabus Validation sheet to measure or observe objectively the aspects in developing syllabus.

Indicator is an achievement in Basic Competence which is marked by the changes of behavior. The changes of behavior can be measured and observed including attitude, knowledge and skill. Each Basic Competence is developed to become some indicators (more than two). Indicator always uses operational verbs which can be measured and observed. The level of operational verbs in indicator should be lower than or the same as those which are used in the Basic and Standard Competence. The principles of indicator development are urgent, continuity, relevant, and contextual.

There are some references to formulate indicator. They are: (1) It considers to the concept of cognitive level based on Bloom Taxonomy (C1 to C6) or based on the revision of Anderson and Krathwohl (2001), (2) It uses operational verbs that should be in sequence with the level of difficulty and can be measured and observed so that it can be used as a principle to make assessment., (3) It is begun with the easy level of thinking to the difficult one, from simple to complicated,

from close to far and from concrete to abstract, (4) It develops Basic Competence which shows signs, behavior and responses performed by the students, (5) It is developed in line with school characteristics, potential area, and the students themselves. This theory becomes the principle in formulating indicators to achieve competence in my research. Those principles of formulating indicators are used to support the design of Syllabus Assessment so that I can scrutinize the syllabus documents made by the science teachers objectively.

METHODS

This research employs Descriptive Qualitative Research. The three main purposes of the research are to describe, explain, and validate findings. Description emerges the following creative exploration and is served to organize the findings in order to fit them with explanations, and then test or validate those explanations (Krathwohl: 1993).

This approach is based on a case study that there is an assumption that science teachers in *RSBI* schools had difficulties in writing syllabus in English. Therefore, the objective of the study is to scrutinize their documents and examine in depth whether the writing syllabus for science teachers in *RSBI* State Senior High Schools in ex-Pati Residency is really problem for them and whether it shows their ability. A descriptive study might employ methods of analyzing correlations between science teachers' capability in writing syllabus in English with their knowledge of using English as their communicative language. Based on the qualitative research, I portray and analyze what difficulties science teachers have in writing syllabus in English. Therefore, I can identify and describe science teachers' capability related to the problems they have made in their syllabus document.

The subjects of the study are science teachers (i.e Physics, Chemistry and Biology) in International Standardized Schools for State Senior High Schools in ex-Pati Residency who have syllabus documents written in English.

The unit of analysis in this research is appropriate components in the syllabus and English sentences stated such as grammatical rules in arranging sentences and the use of vocabulary, diction, technical language in the syllabus document written by science teachers in *RSBI* State Senior High School in ex-Pati Residency. Their syllabus documents are collected and analyzed by using Content and Process Standard (*Permendiknas*

No. 41/2007), Bloom Taxonomy and other guidelines from supported books such as technical instructions.

The instruments used to get the data were interview, questionnaire and observation. To scrutinize deeply what problems found in the syllabus documents, I designed syllabus assessment, rubric for scoring sylabus and assessment indicator as guidelines to validate the science teachers' syllabus in English. Hopefully, the syllabus validation is objectively observed and investigated their syllabus.

The first step is to collect syllabus documents written by science teachers from RSBI State Senior High Schools in ex-Pati residency. The next step is to analyze these documents to identify their problems in writing syllabus in English by using syllabus validation sheet. The aspects of validation were constructed based on Permendiknas No.22/2006 about Standard Process and General Standard of Syllabus Development published by National Education Department.

The steps in analyzing data were selecting, categorizing and classifying the data. Syllabus assessment was applied to distinguish whether the syllabus documents were written appropriately or not. Some components and sentences were identified and classified to distinguish their mistakes made by the science teachers. This identification helped them examine what problems the teachers actually had in writing their syllabus. From the data analysis, especially in teachers' weaknesses, it was obtained the information about what they needed to enhance their competence in writing syllabus in English.

FINDINGS AND INTERPRETATION

In collecting data on the research, each *RSBI* school sent 3 science teachers and 1 vice principal of curriculum to fill up the questionnaire and to conduct an interview with the researcher. The science teachers and the vice principals of curriculum were given different questions. The questions given to the vice principals were to support the answers given by the science teachers. There were 21 science teachers and 7 vice principals of curriculum so the total numbers of respondent in my study were 28 respondents.

In designing syllabus in English, the 21 respondents or 100% science teachers had applied KTSP rules and principles based on *Permendiknas* No. 22/2006 about Content Standard. Nevertheles, all of them still found difficulties in writing syllabus in English. When they felt that writing syllabus in English is difficult, they usually con-

sult English teachers to help them or sometimes they consult their dictionary or browse in internet to find appropriate vocabulary and diction.

In portraying the syllabus documents made by science teachers, I used Syllabus Assessment sheets. It was arranged to give score objectively and to measure the strength and the weakness of their syllabus. The syllabus assessment sheet is also completed with rubric for validating syllabus.

From seven *RSBI* schools being examined, I collected 3 syllabus documents from three science subjects i.e. Physics, Chemistry and Biology from each school. There were 18 syllabus documents observed from six *RSBI* schools in my study.

After examining syllabus documents in English written by science teachers from the seven *RSBI* schools in ex-Pati Residency, I could describe the results of the Syllabus Assessment as follow:

SMA N 1 Pati

As I mentioned before that the science teachers were willing to fill up questionnaire and answer interview but they were not allowed to expose their syllabus due to the school's policy and privacy. Therefore, in the syllabus assessment I could not validate SMA N 1 Pati syllabus.

SMA N 2 Pati

SMA N 2 Pati presented very good syllabus in English and it can be used without revision. For the identity aspects, the three science teachers had met the requirements that their syllabus had complete identity such as school name, subject, class, semester and standard competence. The Standard Competence were correlated with the Basic Competence so that the learning material and learning activity were designed based on them. The learning materials also in accordance with the students' characteristics which were shown by character building such as to improve responsibility, social awareness, problem solving and entrepreneurship. The only weakness of the syllabus was the inconsistent usage of sentences in indicator and learning activities.

SMA N 1 Kudus

Overall, the three syllabuses had met the requirements viewed from KTSP 2006

especially the identity which consisted of school name, subject, class, semester, and Standard Competence. It had the identity order based on each science lesson, the level of difficulty in Standard Competence, also the Standard Competence related to all Basic Competence.

In identifying learning material and developing learning activity, the Biology, Chemistry

and Physics syllabus exposed high score, on the other hand the basic learning materials were not in accordance with students' characteristics because three of them didn't include core values or character building in their syllabus. "*KTSP* is developed in accordance with the potency, characteristics, and the needs of students, surroundings and society" (*Permendiknas* No. 22/2006 about Content Standard).

The last aspect to be described was the use of English. The science teachers had the same problems with SMA N 2 Pati teachers, they tended to use inconsistent words and phrases.

SMA N 1 Bae Kudus

The science teachers wrote the complete identity in their syllabus, they were school name, subject, class, semester and standard competence. The identity arrangement based on each science lesson and difficulty level of standard competence. The Standard Competence was developed into Basic Competence. The three syllabus didn't perform students' characteristics in the basic learning material but the learning activity in their syllabus created opportunity for students to apply multiple intelligence i.e. affective, cognitive and psychomotor.

Writing syllabus in English always brings problems to science teachers especially the use of English. The problem of the three syllabus was still the same as other schools i.e. the inconsistency of words or phrases arrangement.

SMA N 1 Jepara

The Biology and Chemistry teachers wrote complete identity which contained school name, subject, class, semester and Standard Competence but the Physic syllabus there was no school name on it. The three syllabus got high score in the correlation between Standard Competence and Basic Competence, also the identity order based on each science lesson and difficulty level of Standard Competence and Basic Competence. Unfortunately,the three syllabus got low score in developing learning activity which supported science implementation as science inquiry.

In the use of English, the three science teachers had given attention to the grammatical rules which made the sentences understandable and acceptable but there were still some mistakes found in the words and phrases arrangement. In the learning activity and the indicator, the sentences were not consistent.

SMA N 1 Rembang

The syllabus from SMA N 1 Rembang was very good and can be used without revision. In the identity, the three syllabuses included school name, subject, class, semester and standard competence. The identity order is based on each science lesson and difficulty level of standard competence. There was correlation between standard competence and basic competence.

Indicators were developed based on students' characteristic and each lesson. They were formulated with operational verbs such as to explain, to conclude, to analyze, etc which could be measured/observed using Taxonomy Bloom (Anderson 2001).

Generally, the use of English in the three syllabus were understandable and acceptable because the science teachers consulted their syllabus to English teachers but I still found some sentences were not properly arranged especially in learning activity and indicator. Most of sentences were not consistent arranged and the use of improper vocabulary and diction.

SMA N 1 Blora

The science teachers in SMA N 1 Blora wrote complete identity in their syllabus that is why they got high score in this aspect. The identity order was based on each science lesson and difficult level of standard competence. Good syllabus should correlate standard competence and basic competence because basic competence were developed from standard competence.

Mostly the three syllabus were written in English well, although I still found some mistakes in arranging words, phrases and sentences. Though there were still many mistakes in the three syllabus, overall SMA N 1 Blora performed very good syllabus so the syllabus can be used without revision.

CONCLUSION

Based on the result of questionnaire given to science teachers and the vice principals of curriculum supported with the answer from their interview and also from the result of validating syllabus documents, I can conclude that most respondents knew how to write syllabus in English and applied what components of syllabus to design good syllabus in English by reading *Permendiknas* No. 22/2006 about Content Standard which views *KTSP* rules and principles in making syllabus.

The result of questionnaire and interview showed that 15 out of 21 respondents developed the syllabus by themselves, and 6 out of 21 are using or copying syllabus from other schools. This condition could not show the real capability of science teachers in writing syllabus because most of them said that in writing syllabus in English they couldn't work by themselves, they con-

sulted their syllabus to their colleagues, English teachers, or compared their syllabus with other teachers and even "copy paste" from others and even from internet. From the fact, I can conclude that the science teachers are not capable enough to write syllabus in English by themselves or without any help due to their difficulties in producing sentences in English. Producing sentences in correct grammatical rules, choosing appropriate vocabulary in creating new sentences, selecting suitable diction and technical language are some of their problems. Science teachers are often not self-confident with the sentences they produce, they are not sure whether their sentences right or wrong, and they worried if they made a lot of mistakes in their sentences.

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