The Need Analysis of Ethno Science – Based English Learning Material: A Contextual Model

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Abstract. English is very important for students because English has become one of the International language used by many people. However some obstacles are usually faced by Indonesians who want to learn English. One of the causes of difficulties in learning English is that the material taught is not in accordance with the application of students' daily lives. Analyze the need for ethno science-based English material in contextual model in English subjects was the research purpose. Using the research instrument composed of questionnaire; data were gathered from seventy of the seventh grade students and three teachers of SMPN 14 Semarang to analyze the students and teachers’ needs in learning English. Descriptive statistics were used to analyzed the data. Based from the result, that students and teachers need interesting material in learning and teaching English subject. They agree of developing ethno science-based English material in contextual model because a English subject is not only theory but need to practice it through student activities. The material better is if it is related to everyday life and the culture values of the local community.

Keywords: Need Analysis, Ethno science, contextual, English Material.

INTRODUCTION

Indonesia is a rich country in cultural and linguistic diversity. Unfortunately, the era of globalization has an impact on the entry of foreign cultures which are applied and the local culture is getting lost, which should be maintained. It needs to be done to preserve various noble values and local wisdom through education. It plays a role in instilling values and sustaining cultural elements. In fact, the formal education process tends to be seen as a separate learning process from the acculturation process and separate from the context of a culture. One way is to apply a contextual model in the school environment. In Contextual model, the study raised the theme of everyday life and the environment of the learners. It is more meaningful to student. The learning process takes place naturally in the form of student activities work and experience, not transfer of knowledge from teacher to students. Contextual models can be applied to every lesson, including English lessons. English has become one of the International language used by many people, spreads out and develops either as a second or foreign language (Alfian 2019). However some obstacles are usually faced by Indonesians who want to learn English (Sundari 2018). One of the causes of difficulties in learning English is that the material taught is not in accordance with the application of students' daily lives. Most of the reading materials provided in English course
books seem limited in relation to the students' background or local culture (Dehbozorgi, Amalsaleh, and Kafipour in (Azizah, Inderawati, and Vianty 2020). In the preliminary study in SMP 14 Semarang, the writer found that 1) the material is not appropriate to students culture values and environment, 2) there are still many teachers who use materials that are not contextual in accordance with the needs of student 3) the forms and types of texts (materials) are not fitting to SMP 14 Semarang students. The problems that have been found need to be handled appropriately. It needs to link English material with local culture and can be applied in the students’ daily live. Through the adjustment of material related to students' culture, it is hoped that English will become a meaningful learning and will be easier to learn because it is not only theoretical but can be practiced with students' lives. It needs the development English material based- ethno science in contextual model. Ethno science relating to classification societies, the cultural systems, culture-related physical phenomena and to dig up the past and incorporate the values and the knowledge society (Lestari and Fitrian 2016). Based on the explanation above, this study was conducted to analyze the need for ethno science-based English material in contextual model.

**Conceptual Framework**

**Ethno Science**
The term ethno science comes from the Greek word ethos which means 'nation' and the word scientia from Latin which means knowledge. Etnoscience more or less mean knowledge possessed by a nation or more precisely by tribes or social groups and as a form of local wisdom. Ethnoscience can be regarded as a system of knowledge and cognition typical of particular cultures (Sudarmin, Sumarti, S. S., (2018). Ethno-science is indigenous knowledge from a culture that is connected with scientific knowledge, or is called knowledge owned by a nation(Usman, Rahmatan, & Haji 2019) Ethno science is a learning approach that has a close relationship with culture. Ethno science are knowledge possessed by a nation, tribe and specific social groups. Ethnography focuses more on cultures that classify existing environments or social situations. Ethnicity is an activity that transforms between original science (knowledge relating to the facts of society) and scientific science Hadi et al., (2019, p. 119). Ethno science can be defined as a set of knowledge owned by a society or an ethnic group that uses certain methods and follows certain procedures where it is a tradition in a particular society, and the 'truth' can be tested empirically (Sudarmin 2015, 16).

**Contextual**
Contextual is a connecting learning model real world situations that aim to equip students with knowledge that can applied in concrete daily life (Yulianto Zaini, 2019) in Dewi et al. (2021). Contextual materials were pointed students One of foreign languages became subject in primary and middle school curricula in Indonesia is an English. Using different instructional materials adapted within the constructivist learning theory will enhance students’ conceptual understanding Birisci & Metin, (2010) in Mukhaiyar, Effendi, and Amri (2018). Shaw & Masuhara (2012) in Kiswa and Triastuti (2018), explain different factors which necessitate evaluation of language material; First, the needs of the learners, these needs include the language proficiency level of the learners, the individual learning styles of the
learners, age, what do they want to achieve and many other learner’s needs. Secondly, the language position in education setting also is important factor for material evaluation. The setting includes several issues like, the status of the language and how it is viewed at given setting, whether it is the first language, second language or foreign language, the materials used will be different. The fourth point is whether the materials match with the principles and the approaches used. People use language as a tool of communication to engage with one another and for social needs to be met in society (Susanto et al., 2021). For example in communicative language teaching the materials must enable a person to be able to communicate using language. Fifth materials and language resources should be evaluated to match with type of the syllabuses used at a given context.

Need Analysis
Jordan defines needs analysis as a process of determining the needs of a group of language learners and prioritizing learning materials based on those needs from both subjective and objective information Biduri, Rasyid, and Emzir (2018). Hutchinson and Waters (1987) in Nation and Macalister divided needs analysis into two types of needs, namely the needs of the target and the learning needs.

![Need Analysis Diagram](image)

Figure 1. Need Analysis

Hutchinson and Waters in Biduri, Rasyid, and Emzir (2018) also asserted that the target needs analysis (targets) can be seen in the following three types.

a. The necessity is to ask: “What is required in language learning?”

b. The lacks are questioning: “What are the student shortcomings?”

c. The wish is to ask: “What do students want to learn?”

METHOD

Research design

This study utilized the descriptive qualitative method of research. In the social sciences, qualitative research methodologies are being created to allow researchers to explore social and cultural phenomena (Susanto, 2018). This method involves information about variables and it is employed to measure the existing phenomenon. This study utilized the descriptive research to investigate the facts and features of a certain population or region of interest in a factual and accurate manner(Affini, 2019). Loeb et al., (2017, p. 1), descriptive analysis is

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data determining what works in education, but descriptive simplification. Good description presents what we know about capacities, needs, methods, practices, policies, populations, and settings in a manner that is relevant to a specific research or policy question.

**Respondents of the study**

According to Sugiyono (2013) population is an object or subject that has certain qualities and characteristics in the generalization area, applied to be studied and then summarized by researchers. In this study the population is the seventh grade students of SMP 14 Semarang. The sample is a population that has a share of the number and characteristics (Sugiyono 2013). The subjects of this research were seventy students of the seventh grade and three English teachers at SMPN 14 Semarang.

**The Research Instrument**

The research instruments used in the study was composed of two questionnaires: students’ need analysis and teachers’ need analysis of ethno science-based English material. The students’ need analysis questionnaire consist of ten questions and the teachers’ need analysis consist of twelve questions.

**Findings and discussion**

The following are the results of the gathered data in determining the scientific knowledge. The results of the need analysis of ethno science-based English material were obtained from the results of filling out needs questionnaires by teachers and students. The need for ethno science-based English material of SMPN 14 Semarang in the results of this study was obtained based on the results of needs analysis according to teachers and students’ perceptions. Analysis of development needs is carried out by filling out needs questionnaires by teachers and students. The results of the needs analysis can be presented as follows.

1. The Need for ethno science-based English material according to Student Perceptions

The needs analysis, the results of the analysis on developing the need for ethno science-based English material on the seventh grade junior high school students obtained the results of the analysis which included ten questions which will be presented as follows:

<table>
<thead>
<tr>
<th>NO</th>
<th>QUESTIONS</th>
<th>TOTAL ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>1</td>
<td>I find it difficult to learn English</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>I find it difficult to answer English questions</td>
<td>66</td>
</tr>
<tr>
<td>3</td>
<td>I am interested in the material used by teachers in teaching English so far</td>
<td>9</td>
</tr>
</tbody>
</table>
I need interesting materials to learn English
I like learning English material that related to my daily activities
I like English material that is in accordance with the local culture
I like English material that can grow my love for cultural values
I want English lessons not only theory but need to practice it through student activities
I understand English material better if it is related to everyday life and the culture of the surrounding community
I agree if English material is developed related to the culture of the local community

Based on the data from table 1.1, it is known that the development of ethno science-based English material is needed by students. They need more interesting material is adapted to students' daily lives and the culture of the local community. So far, students learn English face difficulty because they are not interested in the material used by teachers in teaching English. In addition, students have difficulty understanding English material and answering the English questions. Some prominent teaching apps used by lecturers are zoom apps, Google Meet apps, Microsoft Teams apps, Google Classroom apps, WAG apps, YouTube apps, and Skype apps. This is because the materials used when learning English is he lack of student activities or practices, the lack of linking learning with daily student activities and the culture of the local community. Students need interesting material in learning and teaching English subject. They agree of developing ethno science-based English material because a English lesson is not only theory but need to practice it through student activities. They want the material is related to their everyday life and the culture values of the local community. For more details, the percentage results can be seen in Figure 2 below:

Figure 2. Percentage Result of Need Analysis Ethno Science- Based English Material According To Students' Perceptions
2. The Need for Ethno Science- Based English Material according to Teacher Perceptions

The needs analysis from the teachers’ perception was conducted from questionnaire about teachers’ necessary of Ethno Science- Based English Material. The questionnaire consists of twelve questions. Three teachers have answered the questionnaire. The result can be seen as below:

Table 1.2. Analysis of The Need For Developing Ethno Science- Based English Material According To Teachers' Perceptions

<table>
<thead>
<tr>
<th>NO</th>
<th>QUESTIONS</th>
<th>TOTAL ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Does the English learning process that has been implemented can make students be pleased?</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Is learning the English transfer themes unpleasant?</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Do students have difficulty in learning the English?</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Does the English material really help students in achieving English learning objectives?</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Do you agree if the ethno science-based English material is used to help English learning?</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Are students more interested if the material is related to the potential that exists in the environment around where they live?</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Have you ever used ethno science-based English material in teaching?</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Is it necessary to use ethno science-based English material in the English learning process?</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Do you teach English by linking the surrounding culture?</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Does English material need to be taught by linking the surrounding culture?</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>Are ethno science-based English material an interesting material?</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Is the use of ethno science-based English material in English learning necessary?</td>
<td>3</td>
</tr>
</tbody>
</table>

Based on the data from table 1.2, it is known that the development of ethno science-based English material is needed by teachers. So far the English learning process that has been implemented can’t make students be pleased. Students have difficulty in learning the English. Teachers need interesting material to teach English. They agree to develop the ethno science-based English material in helping students learning English. The facilitating of learning materials, it is necessary to link learning with students' local cultural values. Ethno science-
based English materials are considered appropriate to help students improve their English skills.

CONCLUSIONS

The conclusion of this study is that the ethno science-based English material is needed by students and teachers in English subjects for seventh grade students of SMPN 14 Semarang. The material is related to the students’ everyday life and the culture values of the local community. Recommendation for the teacher to be more creative by developing learning material to achieve the learning objectives based on the students and teachers’ needs.

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