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A TEXTBOOK ANALYSIS : AN IN-DEPTH ANALYSIS OF ACTIVITIES IN SCIENTIFIC APPROACH'S PERSPECTIVE IN AN EFL TEXTBOOK FOR SEVENTH GRADE

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Abstract: The need for teachers to analyze whether the textbook used applies learning approach demanded by the curriculum starts to raise. Therefore, this study aims to find out to what extent the activities given in the textbook follow the scientific approach in its design. This study belonged to descriptive evaluative method through content analysis. The main data were three chapters of the selected textbook. The texts were analyzed by using Task Analysis Sheet (TAS) adapted from Littlejohn (1998, in Tomlinson, 2011) rated by two experienced English teachers. The findings showed that in terms of physical appearence and types of activities the textbook was attractive since it is printed full color filled with pictures, illustration, various activities, songs, and games. However, the activities did not fully apply scientific approach as demanded by Curriculum 2013 since the five scientific learning activities were not evenly distributed. Questioning and Communicating activities existence were superior with 61% and 52% compared to Observing, Collecting information, and Associating ones with 22%, 14%, and 19% respectively.Therefore, considering the findings, it is suggested that the teachers should be always well prepared facing curriculum including the learning approach and textbooks changes by time goes by. Thus, they should be critical and creative once they found the lack of textbook provided by the government.

***Keywords**: Textbook analysis, Scientific approach, Task Analysis Sheet (TAS)*

Introduction

Indonesian Ministry of Education and Culture has released a new Curriculum for Elementary and High School, called Curriculum 2013. This curriculum introduces scientific approach to be applied in English language teaching (Suharyadi, 2013). The approach expects learning should be scientific-based, meaning all processes and steps of learning shoud reflect fixed procedures starting from observing, questioning, associating, experimenting, and networking (Suharyadi, 2013)/ communicating.

Also, the Ministry also provides English textbooks both for teachers and learners (Sahiruddin, 2013). In many non-English speaking countries textbooks or coursebooks have become the only resource necessary for an effective languague-teaching program in most schools (Kayaoğlu, 2011). In addition, textbook or coursebooks, are most widely

used materials in the teaching and learning process (Sorohiti, 2005).

There are two main reasons why textbook are widely use. First of all, for teachers, developing material by their own is a very difficult and demanding job. There are a lot of considerations to be taken into account throughout the development. The second reason is that teaching itself is quite time-consuming. So, teachers may do not have enough time to develop new materials (Sheldon, 1988, cited in Sorohiti, 2005).

A textbook can often play a crucial role in learners' success or failure (Mukundan, Hajimohammadi, & Nimehchisalem, 2011). Once a thorough investigation of textbooks using some kind of consistent evaluation procedure, it will be rewarded by having chosen a textbook that best fits all the stated criteria made by teachers (Brown, 2001) and assisting educators in identifying the particular strengths and shortcomings in textbooks already in use (Sheldon, 1988, in Lawrence, 2011).

Yet, where the teacher is under considerable pressure to teach to a specific syllabus using a book specially written for that purpose, evaluation of the textbook is still necessary to be conducted (McGrath, 2002).

Additionaly, in Indonesia, English is officially taught in seventh grade. Therefore, the resercher aimed to conduct a deeper analysis of the activities presented in the three selected chapter of an EFL English textbook for seventh grade whether they follow the scientific approach demanded by the curriculum.

To achieve the research objectives, two research questions are formulated in this study as below.

1. How are the activities in *When English Rings a Bell* designed?
2. To what extent do the activities in *When English Rings a Bell* follow the scientific approach in its design?

By analyzing the activities, it is expected that awarness of teachers will arise that textbook cannot be treated as a Holly book even when it is published by the government. Also, they should be critical and creative to overcome the lack of it, for example, preparing additional materials, learning sources and activities.

Literature Review

Textbooks are one type of text, a book for use in an educational curriculum (Brown, 2001). While analysis refers to a process which leads to an objective, verifiable description (McGrath, 2002). Thus, textbook analysis can be defined as a thorough investigation of textbooks using some kind of consistent evaluation procedure to identifying the particular

strengths and shortcomings in textbooks already in use (Sheldon, 1988, in Lawrence, 2011). Also, the information obtained from the analysis of textbook is of utmost importance not only for understanding the merits and appropriateness of the current textbook but also for the effectiveness of language teaching in general (Kayaoğlu, 2011).

Textbooks act as sources of ideas and activities (Cunningsworth, 1995, in Sarem, Hamidi, and Mahmoudie, 2013). They play an important role in making the leap from intentions and plans to classrom activities (Schmidt, McKnight, and Raizen, 1997, in Sarem, Hamidi, and Mahmoudie, 2013). While classroom activity specifically refers to a reasonably unified set of student behaviour, limited in time, preceded by some direction from the teacher, with a particular objective (Brown, 2001).

Some consider activity to be synonymus to technique, task, practice, exercise, even strategy (Brown, 2001). Brown (2001) argues activities include role-plays, drills, games, peer-editing, small-group information-gap exercises, and much more. Similarly, exercises might well include other activities like dictation, pair work, group work, problem solving, doing tasks, and the like (Brown, 1995).

All in all, a textbook defines what is to be learned (McGrath, 2002) by providing activities. The way of defining what learners need to learn is called as approach (Brown, 1995). Thus, activities presented in the textbook are designed based on what learners need to learn, in other words, activities design is in line with the approach being applied.

Indonesian Ministry of Education and Culture has released Curriculum 2013. This curriculum introduces scientific approach to be applied in English language teaching (Suharyadi, 2013).

This approach has been popular in science, social science, and management but it is not yet prominent in English language teaching area (Suharyadi, 2013). The word scientific derives from the word ‘science’ which means ‘about or related to science, or using its methods or based on or characterized by the methods and principles of science’ (Online Longman Dictionary, 2013, in Suharyadi, 2013).

In this context, ‘scientific’ refers to any work or result a person achieves must be accomplished by following the principles available in science (Suharyadi, 2013). Therefore, the curriculum 2013 brings scientifc approach in the learning process (Kusumaningsih, 2013). It means that all processes and steps of learning should reflect fixed procedures (Suharyadi, 2013) constructed from observing, questioning, collecting information/experimenting, associating, and communicating

(Kementrian Pendidikan dan Kebudayaan, 2013, in Pahlevi, 2013).

The prevalence of scientific approach is controversial (Suharyadi, 2013). Scientific approach is a learning process that support creativity (Saddhono, 2013, in Kusumaningsih, 2013; Machali, 2014). The five learning processes proposed by Indonesia Ministry of Education and Culture which is called to be scientific based learning determined to be discovery skills by Dyer, et al. (2009).

According to the result of his research, it is indicated that our ability to think creatively comes one-third from genetics; but two-thirds of the innovation skill set comes through learning—first understanding a given skill, then practicing it, experimenting, and ultimately gaining confidence in one's capacity to create (Dyer, et al., 2009). Thus, the implementation of discovery skills in learning process is believed to build learner's creativity (Machali, 2014).

Yet, it is still unidentified why the Curriculum 2013 called its learning approach to be scientific instead of discovery skills based approach. Yet, it is vague if the five discovery skills is called to be an approach since approach refers to theories about the nature of language and language learning that serves as the source of practices and principles in language learning (Richards & Rodgers, 1986).

Therefore, since scientific approach does not have robust theory of language learning as well as other approches have explained above and also by referring to the depiction of five discovery skills proposed by Dyer, et al., (2009), what is meant by scientific approach argued by the government should be seen as learning processes including five steps; observing, questioning, experimenting, associating, and communicating. Within these steps, teachers can still use the approaches or methods which are relevant or appropriate with the student's levels and needs (Suharyadi, 2013).

Methodology

This research belongs to descriptive evaluative study. Descriptive study is used to describe condition, phenomenon, event, activity, and so on in which the result will be explained in the form of report. Meanwhile, evaluative study is used to describe the phenomenon of the object will be studied by comparing to the criteria. Furthermore, it depicts whether the studied object has been compatible, less compatible, or incompatible with the criteria (Arikunto, 2010, in Hidayattuloh and Kusrini, 2014).

Task Analysis Sheet (TAS) adapted from Littlejohn (1998, 2011) is chosen as the instrument for the research which focuses on the activities provided in the

textbook. Due to the aims of the present research, the schedule is modified from its original version by including a set of criteria of scientific based learning processes which are consist of observing, questioning, experimenting, associating, and communicating. The analysis of there aspects may reveal how scientific approach demanded by the Curriculum 2013 have been put into practice.

Each activities analyzed by two experienced English teachers using each feature under section or subsection on checklist to know whether or not each feature is present or not. If it is present, it is counted one (1) on the feature under section or subsection and zero (0) if it is not (Rindawati, Ikhsanudin, and Wardah, 2014).

The analysis will depicted into two parts. Part one portrays a general description of the three selected chapter including the learning objectives and structures of each activity contained in each chapter. Meanwhile, in the second part, the activities within three selected chapters from the textbook are going to be classified and their presence will be counted according to the criteria from adapted Task Analysis Sheet (TAS) (see Appendix).

After that the numbers will be calculated into percentages and tables to see the comparison for each criteria conveniently. Thus, it is hope by using this framework the result of analysis can give a comprehensive and verifiable description of the textbook in terms of to what extent the activities follow the learning processes based on scientific approach which is stated in of the Indonesian Curriculum 2013.

Data Presentation and Discussion

- **General Description of Activities in the Three Selected Chapters**

The textbook is full of pictures instead of explanation of the material (Hidayattuloh and Kusrini, 2014). This full-colored textbook consists of 210 pages including eleven chapters with different topics for each and each chapter has not clear standardized subsection (Rindawati, Ikhsanudin, Wardah, 2014). The only feature presents in all chapter is 'Now I Know...' subsection that is located in the last part of the chapter.

Through chapter 1 learners will learn to greet, thank, take leave, and apologize. There are 18 activities, a final project, and two songs titled 'Good Morning' and 'How are You?'. Before coming to the first activity, the chapter provides a song entitled 'Good Morning'.

Activities provided in chapter VI demand the learners to identify the meaning of a song, identify rhyming words, and name singular and plural

nouns. It consists of 13 activities, 'I Have Dream' song, and guessing game.

In chapter VI, specifically in activity 5, learners are asked to find two words that rhyme with the list of words. The problem is the listed words are not provided, as a result, the activity cannot be accomplished by learners.

Meanwhile, in activity 9, learners are asked to read the lyric before discussing the meaning of the listed words. Even this activity still can be completed by learners by using other sources, for instance by looking up the dictionary, it will be better if the lyric is enclosed to help learners find the meaning of the word in its context not in its isolation as a single word.

Through chapter XI the learners will learn to describe and tell about their idol teachers, cute pets, and lovely houses. It consists of 14 activities and a final project.

From the three selected chapters, two typographical errors are recognized each in chapter VI and chapter XI. In chapter VI, there is not exist activity 6's label. While, in chapter XI, activity 8's is not there. Actually, the activities are presented in the two chapters but the activities are not labeled. Even it is not a big problem, it may give difficulty for learners. The teacher should give extra explanation only for showing what they should do. In other words, it is time consuming.

- **Task Analysis Sheet (TAS)'s Result**

1. WHAT IS THE LEARNER EXPECTED TO DO?

a. Turn Take

Table 1

A. TURN TAKE	Percentage
Initiate	54%
Scripted response	31%
Not required	26%

From table 1, it can be acknowledged that within three chapters, most of activities demand learners both to produce classroom discourse initiatively and also to give responses. Thus, it can be said that the activities insist learners to be more active in producing language they learn.

Accordingly, a big number of activities which require learners to produce language is in line with the claim stated in the textbook to put English as a means of communication and one of criteria of scientific approach to give responses towards learning materials.

b. Focus

Table 2

B. FOCUS	Percentage
Language system (rules or form)	10%
Meaning	24%
Meaning/system/form relationship	51%

As table 2 shown, small amounts of activities either concentrate on language system/rules/form or meaning. Form-focused activity relies on accuracy instead

of fluency which is concerned by meaning-focused activity (Shang, 2007).

On the other hand, the combination of form and meaning focused activity show it dominance throughout the three analyzed chapters. The combination of both form and meaning can significantly increase learner awareness of the target structure and improve accuracy in its use, as well as providing opportunities for meaning-focused comprehension and production of the target language (Fotos, 1998, cited in Shang, 2007). Also, the result shows that another criterion of scientific approach is achieved that learners should be accurate in identifying, understanding, and resolving problems, and applying the material learned in this case learners are asked to give responses which are grammatically and functionally correct.

c. Mental Operation

Table 3

Mental Operation	Percentage
1. Observing	22%
2. Questioning	61%
3. Experimenting	14%
4. Associating	19%
5.Communicating	52%

In regard to table 3 above, questioning holds its domination among the five learning processes of scientific approach based learning. Followed by communicating, observing, associating, and experimenting, which come in the second, third, forth, and fifth place respectively.

Questioning and Communicating activities existence were superior with 61% and 52% compared to Observing, Collecting information, and Associating ones with 22%, 14%, and 19% respectively. This result indicates that learners are given numerous questions and plenty of time to communicate what they have learned without having much opportunity to observe the subject matter, collect adequate information, gather and find the link between knowledge and experiences they have known or want to know.

Besides, the unsteadiness number of observing, questioning, collecting information/experimenting, associating, and communicating activities may not accommodate the expected values of each activity. For example, observing activity aims to provide new knowledge or information for building their cognitive competence. Then, collecting information activity expects learners to communicate with people around them politely and respectfully to develop their affective competence. Also, associating activity emerges to construct learners' cognitive competence since it requires them to be able to see the link among gathered information and the knowledge they have

already known to come to a conclusion. In addition, it concerns learners' affective competence as it calls for their honesty of the knowledge they have already known and the conclusion that is drawn by them.

Whereas, scientific approach is believed to be able to develop learners' attitudes (affective), skills (psychomotor), and knowledge (cognitive) which expect them to have soft skills and hard skills to live properly by following the five steps (observing, questioning, experimenting, associating, networking) in teaching and learning process (Suharyadi, 2013). Thus, since the five learning processes are not distributed evenly, the chance for developing learners' cognitive and affective competence is strictly restricted.

Accordingly, the activities in the textbook cannot be said to be in line with the essence of scientific approach proposed by Curriculum 2013 since the five learning processes are not distributed evenly.

1. WHO WITH?

Table 4

II. WHO WITH?	Percentage
Individual work	51%
Pair work	8%
Group work	20%
Learner to whole class	15%
Learner individually outside the class	9%

As table 4 presented above, it can be acknowledged that the activities give learners more portion to work by themselves instead work in groups. The activities should accommodate learners to interact more with people whether in the classroom or outside the classroom so that they will get more exposure towards English and it can be used as the means of communication.

2. WITH WHAT CONTENT?

a. Input to Learners

i. Form

Table 5

1. Form	Percentage
graphic	14%
extended discourse: written	24%
extended discourse: oral	7%
words/ phrases/ sentences: written	65%
words/ phrases/ sentences: oral	9%

The textbook is intended for seventh graders, it can be said that they are still beginner in learning English since English is officially taught in seventh grade. Beginners need to start learning English with plenty of listening practice and opportunities to listen (Pinter, 2006). Additionally, Foreign Language learners should attend to the target language structures by exposure to numerous examples of communicative input (Shang, 2007).

On the other hand, as shown by figure 22, excluding graphic form, the input given to learners is mostly in the written forms and graphic instead of the oral ones. Learners are given more exposure to read rather than to listen. Unfortunately, scientific approach demands teacher's explanation and teacher-learners and learner-learner's interaction so learners need more listening exposure.

ii. Source

Table 6

2. Source	Percentage
Materials	70%
Learners	22%
Outside the course/ lesson	21%

Material, in this case textbook, supplies most of the input. This shows that learners are only given limited opportunity to gather various information from various sources. It is worried that learners will be so dependent to the textbook and will find it hard to gather answer from other sources.

Additionally, it violates a criterion of scientific approach that the learning materials foster and inspire students to hypothetically think when seeing diversities, similarities and links in the learning materials. Learners cannot compare diversities, similarities and links in the learning materials since there is only one source material, the authorized English textbook.

iii. Nature

Table 7

3. Nature	Percentage
fiction	30%
non-fiction	29%
personal opinion	20%
personal information	29%
Song	8%

From the five subsections of nature of the input, they can be classified into three parts; fiction, facts (non-fiction, personal opinion, and personal information), and song. The nature of content of input is largely facts. Non-fiction contents are intended to support learners in learning language in real situation (Rindawati et al., 2014). This goes in harmony with one of the criteria of scientific approach that the teaching materials are based on facts or phenomena which can be logically or reasonably explained. They are not based on prediction, approximation, imagination, legend, or myth.

b. Output from Learners

i. Form

Table 8

1. Form	Percentage
graphic	5%
words/phrases/ sentences: written	58%
words/ phrases/ sentences: oral	47%

According to table 8 above, the activities mostly demands the learners to accomplish the activities both in written and oral form. That means that the distribution of the content between spoken and written is almost equal. Therefore, this textbook emphasizes on productive skills (speaking and writing) in language learning (Rindawati et al., 2014).

ii. Source

Table 9

2. Source	Percentages
Materials	78%
Learners	26%

The output of activities is predominantly provided by the textbook itself. It shows that many activities can be accomplished by learners using the clues or texts provided in the textbook. Unfortunately, it will not significantly increase their ability in English (Rindawati et al., 2014). In addition, the low percentages of activities which use learners themselves as the source of the content necessitate more attention to

giving an active role to the learners in this regard (Sahragard et al., 2009).

iii. Nature

Table 10

3. Nature	Percentages
fiction	12%
non-fiction	43%
personal opinion	40%
personal information	22%

As the table 10 shows, the fiction content has only a small amount within the activities. In contrast, the majority of activities can be categorized under facts. Non-fiction contents are intended to support learners in learning language in real situation (Rindawati et al., 2014). Furthermore, the textbook tries to motivate learners by encouraging them to add information of their own to those presented in the textbook itself (Sahragard et al., 2009).

Conclusions

This study aims to figure out the activities in an authorized textbook in terms of the implementation of scientific approach in its design. This study figured out that in terms of its physical appearence it was attractive since it was colored textbook filled with pictures and illustration. Also, it offered various contextual activities, project work, songs, and games help learners to develop their integrated skills (Rindawati, et al., 2014).

However, some drawbacks were identified due to the presence of typographical errors and unequal distribution of the five learning activities proposed by scientific approach. Questioning and Communicating activities existence were superior with 61% and 52% compared to Observing, Collecting information, and Associating ones with 22%, 14%, and 19% respectively.

Overall, the findings verified that the teachers should be given freedom to use other learning sources to enrich the material covered in the authorized textbook particularly to fill the gap the lack of Observing, Collecting information, and Associating activities. Teacher empowerment should be also taken into account to minimize deskilling effect being to be dependent since the syllabus and textbook are already provided by the government.

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APPENDIX

Appendix Task Analysis Sheet (TAS) adapted from Littlejohn (1998, 2011).

Task number:						
I. WHAT IS THE LEARNER EXPECTED TO DO?						
A. TURN TAKE						
Initiate						
Scripted response						
Not required						
B. FOCUS						
Language system (rules or form)						
Meaning						
Meaning/system/form relationship						
C. MENTAL OPERATION						
1. Observing						
Observing pictures						
Reading						
Listening teacher's explanation						
Imitating						
2. Questioning						
3. Experimenting						
Reading various texts						
Discussing materials						
Studying in group						
Sorting						
Matching						
Labeling						
Interviewing informants						
4. Associating						

Self assessment						
Peer assessment						
Sequencing pictures						
Classifying/ categorize						
Infering						
Comparing						
5. Communicating						
Oral delivery						
Written delivery						
II. WHO WITH?						
Individual work						
Pair work						
Group work						
III. WITH WHAT CONTENT?						
A. INPUT TO LEARNERS						
Form						
Source						
Nature						
B. OUTPUT FROM LEARNERS						
Form						
Source						
Nature						