The effect of mapping instructional materials on EFL learners with different types of materials

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Abstract
The present study examined the effect of mapping Instructional Materials on EFL learners of different types of materials, and the participant learned a different kind of book content, design, and layout of instructional materials. Also, it describes need analysis and creates a model of instructional materials through in-depth discussion among teachers of secondary schools. Data of the study were collected from six English teachers and students of three classes at three different secondary schools in Makassar, South Sulawesi, Indonesia. This study provided critical, meaningful data collection to support what English teacher perception about the design book. Pretest and posttest design were administered to see the effectiveness of the mapping, practicing, and using strategy. Questionnaires were administered to see the teachers and students’ perception toward the instructional materials. It was found that mapping instructional, practicing, and using strategy is effective in improving the English achievement; instructional materials with different strategies improve the English achievement of the students.

Keywords:
Proficiency; development; instructional materials; mapping.

1 INTRODUCTION
English in Indonesia is a foreign language. In the classroom, it is not used completely; it is used with the Indonesian language. Also, it is not used in everyday communication. This condition makes it difficult for students to master the language. Students have a very limited time in the classroom to practice and increase the language skills, and they do not have much time in the classroom to practice all skills intended by the school curriculum to acquired, that is the school curriculum. This situation needs the attention of teachers or educators to find a solution to the mentioned problem (Syatriana, 2011). Many research results argue that Indonesian students’ English proficiency is low (Syatriana, 1998; Mardiana, 1993; Hamra, 1993, 1996; Kwelju, 2003). The Ministry of Education and Culture has conducted many efforts, such as workshops and education and training for English teachers to increase the professionalism of teachers at all levels of education for teacher qualification. Increasing English proficiency should be the main objective of every teacher, educator, or stakeholder. It is a primary need for Indonesian people or parents of students.

Based on the observation from the schools where the research was implemented almost all of the students have low English proficiency (Sikki, 2013; Rumaedah, 2013; Syukur, 2013) which comes from various aspects. These include the monotonous teaching strategies implied by the teachers in the classroom, the lack of teaching facilities or media, the linguistic competence, the learning habits, interest, attitude, and ineffective instructional material (Hamra, 1993). Most teachers implement the commercial books although they don’t match the school curriculum. Nearly all of them are not keen on to prepare appropriate media in the teaching and learning process. Teachers know the importance of the media, but they are reluctant to make. This is a real situation that happens at almost all schools. From all possible handicaps mentioned, the instructional materials may contribute to the main cause of low learning outcome of the students since they do not match the school curriculum. Therefore, this present research plans to design English instructional materials based on the school curriculum to improve the students’ English proficiency. The present study designs effective instructional materials or course book based on the school curriculum that is expected to improve students’ proficiencies. The designed book will be based on the school curriculum, the purpose of material writing, and the applications of various learning strategies.

Many studies were conducted regarding the effect of mapping instructional materials on the different type of materials. The schools have to arrange syllabi that have components of competency standards, basic competency, instructional materials, learning objectives, indicators, evaluation, allotted time, and learning resources for each subject at a school. Instructional materials should be attached with the arrangement of professionally developed materials, allowing teachers to give their valuable time more on distributing learning materials. Course books are used flexibly, and they can be adapted and supplemented to meet the needs of specific classes. Brady and Kennedy (1999) entail some plus point for the use of course books namely: (1) fulfil the criteria of practical needs, specific in a context where English is being taught in non-English-speaking environments, (2) helping to share a route map for both teacher and learner, making it possible for them to look ahead to what will be done in a lesson as well as to look back on what has been done, (3) feed structure and predictability, which help participants in social interactions like lessons, a platform for negotiation and exploration. Chou (2010) claimed that some disadvantages of English course books, among others: (1) a large number of activities of “questions and answers” in the course books might cause many students to find the learning process boring and uninteresting. The reading selections mostly international level, which does not touch the local context (Tomlinson, 1998). To support description, this research intends to create English instructional material for secondary school students based on the school curriculum for the aims of students learning English seriously accordingly that they have good English language skills by the school curriculum. The proposed study has some steps: need analysis where the existing student
English proficiency and the instructional materials were analyzed, what the students’ want, and what the students’ lack, and what the students wish to learn?

2 METHOD
The pilot study aimed to determine the effect of mapping instructional materials of different type of materials. The subject of the study was the tenth-grade students in three different schools and teachers in Makassar. The researchers chose one class from each of the three different schools, during the academic year 2017-2018. The subjects were 30 students and 15 teachers from three different schools. The teachers and researchers conducted an in-depth discussion to get instructional design. This study used random cluster sampling in three secondary high schools in Makassar, South Sulawesi, Indonesia. The textbook materials were adapted from the Look Ahead Book and the design book entitled Learn and Practice. The general stages are ordered into five steps: analysis, design, development, implementation, and evaluation. It is also known as the generic model which many instructional model designs. It is usually used in education, and it is a general procedure for designing instructional materials. The teacher’s questionnaire was given to determine the instructional material or the course book they used in terms of the quality, content, design, strategy use, and the personal appeal of teaching materials. The formative test was given to determine the students’ ability to master language skills. Interviews and in-depth discussion were carried out to obtain details about English instruction and the teaching model development. Study documents, such as syllabus, learning.

3 RESULTS AND DISCUSSION
3.1 Results
The Result of the pilot study are shown in Table 1. Identifying the existing instructional materials In the preliminary step, this study tried to find out what the English proficiency of the students by administering a pretest, what they know and what they do not know, what they think they need by administering a questionnaire and in-depth discussion with the teachers. The conclusion of the need analysis in terms of instructional materials indicated that some existing problems faced by the teacher were identified through a semi-structured interview. Based on the interview, from 15 teachers in three different schools indicated that the current books were far from the competency target the curriculum because they do not agree with the school curriculum, and they did not meet with the students’ need which was based on the content standard of the school curriculum. The English teachers determine the technical books because they are provided with a syllabus, lesson plans. Thus, they do not necessarily design syllabus and lesson plans by themselves, and they are easy to get because of the kindness and help of the publishers; They do not use the obligated books published by the government. In reality, most of the students do not get the target of the school curriculum; they are not able to speak English well, to listen to the English news or English movies, to read English textbooks, and to write even English simple sentences/paragraph well. The technical books lack contextualization; the local contents are not provided appropriately. The ending of need analysis was taken from the interview, which indicated that the real book does not go with the competency standard of the school curriculum. The exercises are not in the same line with the main lessons which are written in the curriculum. It does not create a maximum target to be the main standard. Some examinee stated that the vocabularies were too high for the students, and this could arouse the students’ motivation to learn. Besides, some teachers gave their opinion that there was unsynchronized between the target curriculum and students comprehension. In other words, some materials on the existing books do not meet with the students need.

The result of the teachers’ questionnaire consists of content, organization, and design aspects of the course book. The content relates to language functions based on the school curriculum, themes, and vocabulary. Almost all of the teachers stated that the existing books used by the teachers do not agree with the school curriculum. Sequence/organization The school curriculum has sequenced the language functions in each semester. The sequences of the materials do not match to the existing course book. Some exercises are not necessary. These make the course books are thick, and the thickness of the book make it expensive. The following decisions were made to apply to the reach and development study. Almost all teachers agree that the design or appearance of the course book is good. The exercises are designed based on the curriculum, but they are colored, so they make students interesting to study. The sequence of the instructional materials does not match the school curriculum completely.

<table>
<thead>
<tr>
<th>Table 1 Pretest, posttest achievement</th>
<th>Mean</th>
<th>N</th>
<th>Std Deviation</th>
<th>Sd Error mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>77.37</td>
<td>30</td>
<td>1.99</td>
<td>.364</td>
</tr>
<tr>
<td>Posttest</td>
<td>79.73</td>
<td>30</td>
<td>2.74</td>
<td>.500</td>
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<tr>
<td>Pair Pre Post</td>
<td></td>
<td>30</td>
<td>.90</td>
<td>.000</td>
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</table>

The correlation before and after using the new instructional materials, between the two tests of 30 students is .90. The correlation is significant since .000 < 0.05 at the level of .05. The correlation before and after using the new instructional materials, between the two tests of 30 students is .90. This framework contains the steps of developing conducting this research, which was adapted from Gustafson (1981). The steps consist of need analysis, design, development, implementation, and evaluation. Need analysis means to find information relates to the design of instructional materials. It begins from a need analysis of fields such as finding out about the existing instructional materials, the English proficiency of the students, and students’ needs in relating to what they want, what they lack, and what they wish to learn.
Design relates to the formulation of learning objectives, learning indicators, instructional material based on the school curriculum, syllabus, and lesson plan. Development, prototype development relates to creating new instructional materials by considering all related concepts: such language competence and performance, teaching strategies, and learning environments and contextualization of the materials. The aim is to bring the students to recognize their own culture and environment (the instructional material development based on the school curriculum. Implementation refers to the distributions of the instructional materials to students for the teaching purpose. In this phase, the formative evaluation was administered to improve the process of teaching and learning, and summative evaluation to see the learning outcome of the students.

The teacher’s questionnaire was given to determine the instructional material or the course book they used in terms of the quality, content, design, strategy use, and the good side of teaching materials. The formative test was given to determine the students’ ability to master language skills. Interviews and deep discussion were carried out to obtain details about English instruction and the teaching model development. Study documents, such as syllabus, learning implementation plan, the source of learning materials are important to understand. It pointed out that documents play an explicit role in data collection when conducting studies. The observation was expected to ground their reflection in observed experience (Wolcott, 1994). Observation provided certain unusual opportunities for collecting data by actually participating in the study. This kind of evidence is often useful in providing additional information about the topic under investigation. Observation can range from formal to casual collection activities a filed visit such as meetings, classroom. This current study used direct observation with a content analysis form. Test summative test was delivered after students use the book in the classroom. The test is intended to measure students’ skill such as listening, speaking, reading and writing, and to find out the students’ competences and the mastery of subject content.

3.2 Discussion

Since the purpose of this research is to design instructional materials for secondary school students based on the school curriculum, many research activities were conducted to answer the research questions and the writing design was based on the process of writing instructional materials developed by Jolly & Bolitho in Tomlinson (1998). Also, it developed by the ADDIE procedures by identifying the existing problem, conducting the analysis of the instrument, conducting a survey of students’ need. The conclusion of the instructional materials, In the preliminary step, this study tried to find out what the English proficiency of the students by administering a pretest, what they know and what they do not know, what they think they need by administering a questionnaire and deep discussion with the teachers. The final of the need analysis in terms of instructional materials indicated that some existing problems faced by the teacher were identified through the semi-structured interview.

Based on the interview, from 15 teachers in three different schools indicated that the existing books were far from the competency target the curriculum because they do not agree with the school curriculum, and they did not meet with the students’ need which was based on the content standard of the school curriculum. The English teachers stated that the commercial books which are completed with the syllabus, lesson plans; so they do not need to design syllabus and lesson plans by themselves, and they are easy to get because of the help of the publishers. They do not use the required books published by the government. In reality, most of the students do not get the target of the school curriculum; they are not able to speak English well, to listen to the English news or English movies, to read English textbooks, and to write even English simple sentences/paragraph well. The commercial books lack contextualization the local contents are not presented suitably. The conclusion of need analysis was taken from the interview, which indicated that the existing book does not go with the competency standard of the school curriculum. The exercises are not in the same line with the main lessons which are written in the curriculum. It does not create a maximum target to be the main standard. Some subjects stated that the vocabularies were too high for the students, and this could affect the students’ condition to learn. Besides, some teachers expressed that there was unsynchronized between the target curriculum and students comprehension. In other words, some materials on the existing books do not meet the students need. The students learned unnecessary teaching items more often than the obligatory subjects. The final comment of teachers’ questionnaire toward the existing coursebook The result on the teachers’ questionnaire consists of on content, organization, and design aspects of the course book. The content relates to language functions based on the school curriculum, themes, and vocabulary. Almost all of the teachers stated that the existing books used by the teachers do not agree with the school curriculum. The school curriculum has sequenced the language functions in each semester. The sequences of the materials do not match to the existing course book. Several exercises are not necessary. These make the course books are thick, and the thickness of the book make it expensive.

3.2.1 Design/appearance

Almost all teachers agree that the design or appearance of the course book is good. The exercises are designed based on the curriculum, but they are colored, so they make students interesting to study. The sequence of the instructional materials does not match the school curriculum completed. There are two aspects of the instrument of this research, namely (1) the validity and reliability testing and (2) the instrumented assessment by the experts in their fields. Validity instruments were conducted by administering a questionnaire to 15 teachers and 30 students at SMA A. To know the current English Proficiency of the students; the researcher administered an English test at two schools (SMA A and SMA B). The mean score of the students at SMA A is 77.37, and the mean score of the students at SMA B is 76.47. So, English proficiency is the same.
3.2.2 Design results
In the teaching and learning process, an instructional model design should be considered. The present study considered the Model of Teaching English (MTE) presented by (Syatriana & Hamra, 2011). This teaching model aims to get good oral and written English performance and competence. It evaluates the learning environments: the teachers, students, situation that has three circles: the first circle, oral and written competence, the second circle covers the four language skills and the third circle covers the authentic materials, learning motivation, class interactions, team-based learning, the use of learning strategies, individual activities, linguistic concepts, and reinforcement. There are some learning strategies used in the newly designed textbooks: Listen and Practice) relating to MPU procedure: (1) Mapping with look, observe, say strategies (2) Practicing with various activities such as: matching, completing, oral work, pattern drill, answering question, Using with some activities: situational role play, debates, discussions, problem solving, narratives, descriptions, quizzes and games. However his study is developmental, deep discussion on creating a model of instructional materials was administered among the English teachers in the need analysis refers to the aims of writing instructional materials, school curriculum, and the application of pedagogical aspects.

3.2.2.1 The instructional material development and instructional design
The Instructional Material Development based on School Curriculum (IMDSC) is rooted in the ADDIE model. In the second procedure, the students are expected to practice that language through some exercises relating to the four skills of the English language and the other aspects such as grammar, vocabulary. The students are guided to practice the exercises by the teachers. In the third procedure, some independent exercises such as role-playing are presented in order the students can use the language independently as in everyday communication. The effectiveness of the instructional material tryout with pretest and posttest design at SMA A and SMA B was administered to see the effectiveness of the instructional materials. The tryout was conducted for six times, including the pretest and posttest. Tryout with pretest and posttest at SMA A, the result of the pretest of English achievement indicates that the mean score of 30 students took the test is 77.37 and posttest is 79.73.

<table>
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<tr>
<th>Table 2. Result of instructional materials development and instructional design based on the ADDIE model.</th>
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<tr>
<td>SMA A Pre Test</td>
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<tr>
<td>Post Test</td>
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<tr>
<td>SMA B Pre Test</td>
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<tr>
<td>Post Test</td>
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<tr>
<td>SMA C Pre Test</td>
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<tr>
<td>Post Test</td>
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Thus, the new instructional materials are effective to improve the English achievement of the students. Based on the data described before, the instructional materials meet the students’ needs in learning and teaching process in the classroom. In designing instructional materials, one consideration is to have the identification of needs to solve the problem by the creation of new materials (Tomlinson, 1998). The result of the pretest of English achievement indicates that the mean score of 30 students took the test is 78.00, and posttest is 81.47. Based on the data described before, the instructional materials meet to the students’ needs in learning and teaching process in the classroom, based on the criterion for course book assessment, the researcher tried to assess the instructional materials by comparing the existing and the new design instructional materials based on Ur Penny (1996). The result is representative to improve the students’ skill in learning English. The researcher also adopts the standard assessment for the English language for secondary school students (2013) which stated that the appropriateness of the materials should be related with the curriculum and the content indicators should be suitable with the competency standard.

4 Conclusion
The content of the book is difficult for the students to understand, unsystematic orders that make the students confused and influence the student’s motivation, interest to study and the course book that contains various material that is not necessary for the students. It is only a matter of business oriented. The existing books completed with some pictures that have not yet been representative of the material which is discussed. Some pictures are only for accessories. Otherwise, they should be the ones that help students to understand the material much easier. Pictures ought to explain the subject before students get into the main topics. In other word, students should have understood the subject before learning the chorus. The analysis result for students shows that most of the students comment about the existing books contain too many exercises which are difficult to understand also the vocabularies do not meet the students need in learning English. The comprehension failure also shows that the previous course book offered at three different schools in Makassar such as structure, vocabulary, etc. do not give a significant contribution to the students. The students also state the materials of the new book design are easy to understand, and it is good in grammar presentation and practice for them to improve their English learning skills. The overall analysis result shows that the contribution of the previous design course book does not help the students to comprehend the content of the learning materials. In other words, the materials are still far from the students’ expectation. The test result shows that the average score at SMA B is higher than the result of SMA A; the average score for SMA B is 82.10, while the average score result of SMA A is 79.73. It can be said that the t-test result shows that the best school applied the new design book was SMA B Makassar.
The new design book is relevant to the content standard, and it provides the relevancy with the competency standard at school. The course book could improve the students’ English achievement because it was designed based on the students’ need. The agreement both teachers and students on the use of the course book is essential in enlightening the English language skills of the students. In designing an English course book, teachers should consider the students’ need so they can encourage themselves to develop their learning strategies and to become independent learners without afraid of making a mistake. It is suggested that the newly designed course book may be alternative teaching materials for English teachers since it is based on the students’ need. It is suggested that the competency-based curriculum may be full by the demands of function and purpose of national education. It is suggested that instructional materials based on the students’ need to meet the learning outcome of the students and the basic and the standard competence of language learning. That is why this English course book which entitles Learn and Practice may be useful for English students.

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