

**DEVELOPING APPROPRIATE ENGLISH SPEAKING LEARNING  
MATERIALS FOR ENGLISH TUTORIAL PROGRAM FOR  
THE STUDENTS OF INTERNATIONAL MATHEMATICS EDUCATION  
STUDY PROGRAM OF YOGYAKARTA STATE UNIVERSITY**

**A Thesis**

Presented as Partial Fulfillment of the Requirement for the Attainment  
of *Sarjana Pendidikan* Degree in English Language Education



by:

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YOGYAKARTA STATE UNIVERSITY**

**2014**

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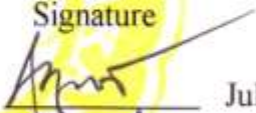


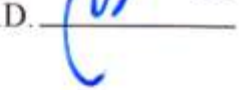
## RATIFICATION

### DEVELOPING APPROPRIATE ENGLISH SPEAKING LEARNING MATERIALS FOR ENGLISH TUTORIAL PROGRAM FOR THE STUDENTS OF INTERNATIONAL MATHEMATICS EDUCATION STUDY PROGRAM OF YOGYAKARTA STATE UNIVERSITY

A Thesis

Accepted by the Board of Examiners of the English Education Department,  
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Degree in English Language Education.

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menyatakan bahwa karya ilmiah ini adalah hasil pekerjaan saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis oleh orang lain kecuali bagian tertentu yang saya ambil sebagai acuan dengan mengikuti tata cara dan etika penulisan karya ilmiah yang lazim.

Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya.

Yogyakarta, 12 Juli 2014

Penulis



Titi Nawangsari

## MOTTOS

*So remember Me, I will remember you.*

*And be grateful to Me and do not deny Me.*

(QS Al-Baqarah: 152)

*So, verily, with every difficulty, there is a relief.*

(QS Al-Insyirah: 5)

## DEDICATIONS

*This thesis is dedicated to:*

*my beloved mom*

*my beloved little sister*

*my father*

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Finally, I hope that this thesis will give some contributions to the readers. However, I realize that this thesis is far from being perfect. Therefore, any suggestions, ideas and criticisms for the improvement of this thesis are highly appreciated.

Yogyakarta, July 2014

Titi Nawangsari

## **LIST OF APPENDICES**

Appendix A. The Needs Analysis Questionnaire

Appendix B. The Needs Analysis Data

Appendix C. The Course Grids

Appendix D. The First Draft of the Materials

Appendix E. The Description of the First Draft of the Materials

Appendix F. The Expert Judgment Questionnaire

Appendix G. The Final Draft of the Materials



## **LIST OF TABLES**

- Table 2.1 Classification of Tasks
- Table 3.1 The Organization of Needs Analysis Questionnaire
- Table. 3.2 The Organization of Expert Judgment Questionnaire
- Table 3.3 Data Conversion Table
- Table 4.1 Data of Respondents of the Needs Analysis
- Table 4.2 Necessities of the Students for Now
- Table 4.3 Necessities of the Students in the Future
- Table 4.4 Language Functions
- Table 4.5 Important Elements in Speaking
- Table 4.6 The Students' Level of Proficiency
- Table 4.7 The Students' Difficulties in Communicating in English
- Table 4.8 The Students' Vocabulary Mastery
- Table 4.9 The Students' Wants in Learning Process
- Table 4.10 The Goal of the Students
- Table 4.11 Topics of the Materials
- Table 4.12 Types of Input
- Table 4.13 Input Length
- Table 4.14 Learning Procedure
- Table 4.15 Learning Vocabulary Procedure
- Table 4.16 Learning Grammar Procedure
- Table 4.17 Learning Pronunciation Procedure
- Table 4.18 Setting
- Table 4.19 Learners' Role
- Table 4.20 Teachers' Role
- Table 4.21 The Outline of the Unit Design
- Table 4.22 The Appropriateness of the Content of Unit 1
- Table 4.23 The Appropriateness of the Language of Unit 1
- Table 4.24 The Appropriateness of the Presentation of Unit 1

- Table 4.25 The Appropriateness of the Layout of Unit 1
- Table 4.26 The Revisions of Unit 1
- Table 4.27 The Appropriateness of the Content of Unit 2
- Table 4.28 The Appropriateness of the Language of Unit 2
- Table 4.29 The Appropriateness of the Presentation of Unit 2
- Table 4.30 The Appropriateness of the Layout of Unit 2
- Table 4.31 The Revisions of Unit 2
- Table 4.32 The Appropriateness of the Content of Unit 3
- Table 4.33 The Appropriateness of the Language of Unit 3
- Table 4.34 The Appropriateness of the Presentation of Unit 3
- Table 4.35 The Appropriateness of the Layout of Unit 3
- Table 4.36 The Revisions of Unit 3

## **LIST OF FIGURES**

Figure 2.1 Task Components

Figure 4.1 The Unit Design of the Materials

## TABLE OF CONTENTS

TITLE.....	i
APPROVAL .....	ii
RATIFICATION.....	iii
PERNYATAAN.....	iv
MOTTOS.....	v
DEDICATIONS.....	vi
ACKNOWLEDGMENTS.....	vii
LIST OF APPENDICES.....	viii
LIST OF TABLES.....	ix
LIST OF FIGURES.....	xi
TABLE OF CONTENTS.....	xii
ABSTRACT.....	xiii
CHAPTER I INTRODUCTION	
A. Background of the Study.....	1
B. Identification of the Problems.....	5
C. Limitation of the Problems.....	8
D. Formulation of the Problems.....	8
E. Objectives of the Study.....	9
F. Significances of the Study.....	9
CHAPTER II LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	
A. LITERATURE REVIEW.....	11

1. Theories of Speaking.....	11
a. The Nature of Speaking.....	11
b. Micro and Macro Skills of Speaking.....	13
c. Basic Types of Speaking Performance.....	15
d. Classroom Speaking Activities.....	16
e. Assessing Speaking.....	17
f. Fluency and Accuracy in Speaking.....	19
2. English for Specific Purposes.....	21
a. Definition.....	21
b. Needs Analysis.....	23
3. Content-Based Instructions.....	25
a. Definition and Principles of CBI.....	25
b. Theory of Language.....	26
c. Theory of Learning.....	28
d. Design of CBI.....	29
4. Learning Materials.....	33
a. Definition and Criteria of Good Learning Materials.....	33
b. Materials for English Tutorial Program.....	35
5. Materials Development.....	36
a. Definition and Principles.....	36
b. Model of Materials Development.....	37
6. Unit Design Development.....	39
a. Principles of Unit Design.....	39

b. Model of Unit Design.....	41
c. Task Grading and Sequencing.....	42
d. Task Continuity.....	45
e. Within Task Sequencing.....	45
7. Task Design Development.....	46
a. Task Definition.....	46
b. Task Components.....	47
c. Task Types.....	53
8. Materials Evaluation.....	55
B. CONCEPTUAL FRAMEWORK.....	56
<b>CHAPTER III RESEARCH METHOD</b>	
A. Research Design.....	59
B. Research Setting.....	59
C. Research Subjects.....	60
D. Research Procedure.....	60
E. Data Collection Techniques and Instruments.....	61
F. Data Analysis Technique.....	64
<b>CHAPTER VI RESEARCH FINDINGS AND DISCUSSION</b>	
A. Research Findings.....	67
1. The Description of the Needs.....	67
2. The Course Grid.....	80
3. The Unit Design.....	80
4. The First Draft of the Materials.....	82

5. The Expert Judgment.....	83
6. The Final Draft of the Materials.....	99
B. Discussions.....	100
CHAPTER V CONCLUSIONS AND SUGGESTIONS	
A. Conclusions.....	107
B. Suggestion.....	111
REFERENCES.....	114
APPENDICES.....	117

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**Abstract**

The objectives of this research were 1) to identify the target needs and learning needs of the students of International Mathematics Education Study Program of Yogyakarta State University 2) to develop appropriate English speaking learning materials for the students of International Mathematics Education Study Program of Yogyakarta State University for academic purposes.

This research was Research and Development (R&D) study. The research procedure followed the research design proposed by Gall, Gall, and Borg (2003) with some modifications. The steps were (1) collecting data and information, (2) writing course grids/syllabus, (3) developing the first draft of the materials, (4) evaluating the first draft of the materials, (5) revising the first draft and writing the finals draft, and (6) making conclusions and recommendations. There were two questionnaires employed in this research: (1) needs analysis questionnaire and (2) materials evaluation questionnaire. The needs analysis questionnaire was distributed to the students to find out the students target needs and learning needs. The materials evaluation questionnaire was distributed to the materials expert to evaluate the materials whether the developed materials were appropriate or not to be used as speaking learning materials for the students. The questionnaire was adapted from "*Instrumen Penilaian Buku Teks Pelajaran Bahasa Inggris*" from BSNP (2007). The questionnaire covered four aspects, namely the appropriateness of the content, the language, the presentation and the lay out. The data obtained from the needs analysis questionnaire were analyzed using frequency and percentage and the results were then used as the basis to develop the course grids, while the data from evaluation questionnaire were analyzed using descriptive statistics.

This research developed three units of materials. Each unit is made up of introduction, main lesson and reinforcement tasks ranging from 15-16 tasks. The tasks focus on improving the students' speaking ability. The input is in the form of monologues, dialogues, pictures, explanations and vocabulary list. The types of the tasks are mostly listening to recording, answering WH questions, completing dialogue using provided words or the students' words, acting out dialogue, creating dialogue and game. The students were encouraged to do the tasks in pairs and small group. Based on the findings from materials evaluation, the content, the language, the presentation and the layout of the developed materials are appropriate. The mean score of all aspects of the developed materials is 3.65 which is categorized as "Good".



# **CHAPTER I**

## **INTRODUCTION**

This chapter presents background of the study, identification of the problems, limitation of the problems, formulation of the problem, objectives of the study, and the significance of the study.

### **A. Background of the Study**

Yogyakarta state university is one of the universities in Indonesia which has goals to create educational personnel and develop education and teaching knowledge instead of creating non-academic professionals. Since 2007, Yogyakarta State University (YSU) has a new vision in which the vision becomes more noticeable right now, which is to be world-class university. According to Marsigit (2009:1), there are two underlying reasons which lie beneath the vision of becoming world-class university. First is that, as a state university, Yogyakarta State University has obligation to follow the government's policy to develop International-Standard Schools. Hence, to support the government's plan, YSU needs to take steps to be world-class university. Second is that the demand of the university ranking among universities in the national area or global area.

To be a world-class university means to have a better quality of education. According to Levin (2006:2), to be WCU means to be (1) excellence in education of their students, (2) research, development and dissemination of knowledge and (3) activities contributing to the cultural, scientific and civic life if society. In

order to achieve the aim to be world-class university, YSU established TASK Force in 2007 in order to develop and implement projects to be world-class university.

One of the projects to be WCU is having International Study Programs. Right now, YSU has six international study programs which are Mathematics Education, Chemistry Education, Physics Education, Biology Education, Science Education and Accounting Education. Marsigit, (2009:1) states that those international study programs apply international standard curriculum, international standard teaching and learning process, international standard learning assessment, international standard references, international standard lecturers and so on.

In accordance with the facts mentioned before, the demand of the use of English for the students of International Study Program is higher than those who do not include in the International Study Program. The students of International Study Program are required to have good ability both of productive and receptive skills of English in order to meet the requirements as the students of the International Study Program.

Based on the result of the interview with some of the students from International Mathematics Education Study Program, the students are required to be able to use English both productive and receptive skills because the process of the teaching and learning inside the classroom is done by using bilingual language, English and Indonesian. And as an International Study Program, English is used as a dominance instructional medium in the process of teaching

and learning. They add that the handbooks or references are in English, most of the tasks and homework given by the lecturers are English as well, so that they need to perform them in English. Therefore, in order to carry out the activities in the process of teaching and learning effectively and efficiently, the students need to be fluent in English especially in productive skills (oral communication).

However, in reality, the students of International Mathematics Education Study Program, find it difficult in carrying out the activities in the process of teaching and learning because of the language barriers. Based on the results of interview with them, they were able to understand the instructions and explanations from the lecturers during the lectures and they could understand the content of the handbooks or references but they found it difficult to understand native speakers who spoke in English and to deliver information or opinions in oral communication in English. From seven interviewees, only two interviewees who could speak English fluently without stopping many times and trying to find out the words that they were going to say. And the rest of the interviewees barely spoke in English. They took longer time to answer every question. They often stopped when they spoke and used Indonesian because they could not find the English words that they were going to say. Moreover, only few of them could speak in English accurately. Many of them tended to make mistakes in grammar.

In accordance with the condition mentioned before, it can be concluded that the students of International Mathematics Education Study Program, are far from being called as fluent English speakers. Though, oral communication is very important for them as they are the students of International Study Program who

are required to be able to do oral communication fluently in English in order to be effective and efficient during the learning process and later on when they graduate from the university.

Independent Language Learning Center (ILLC), the subdivision of Center of Language Development (*Pusat Pengembangan Bahasa*) of Yogyakarta State University, in order to facilitate and help students of International Study Program to learn speaking of English, carries out a pilot English tutorial program called English Speaking Club (ESC). This program aims to help students of the International Study Program to improve their speaking skill and also listening skill in term of their academic and daily life contexts. Therefore, in the application, the program needs appropriate materials for the participants in order to achieve the aims.

In order to be able to improve their English proficiency level especially in the oral communication, the students of International Mathematics Education Study Program need appropriate materials which suit their needs as the students of International Mathematics Education Study Program. The materials should cover the topics that they need in those two contexts. Moreover, the materials should be appropriate with their proficiency level, so that their learning will be effective and meaningful for them in improving their ability in oral communication. Hence, the aim of this research is to develop appropriate English learning materials for the students of International Mathematics Education Study Program.

## **B. Identification of the Problems**

The English tutorial program, as a new program founded by the Center of Language Development, aims to facilitate the English learning of International Study Program students in terms of speaking. In order to achieve the goal, some aspects should be taken into consideration, including choosing appropriate materials to assist the students' learning in the program.

Materials for the English tutorial program that should be available are course book, workbook, module, handout, multimedia materials and so on. According to Tomlinson (1998:ix), coursebook is a textbook which contains the core materials for the learners in a course including work on grammar, vocabulary, pronunciation, function and the skills of reading, writing, listening and speaking. Workbook is different from coursebook, Workbook contains extra practice activities to work on their own time. It usually provides answer key in the book with the intention of giving feedback to the learners. Multimedia materials can be in the form of CD-Rom. It usually contains video, audio, graphics and soon. Handout can be defined as a document given to students that contains information about a particular subject. Module is a book containing a number of units in which the units are derived from compilation of chapter of books or other resources. Each unit of module contains theories of a particular topic of particular subjects and exercises related to the theories.

Materials that are available for the program are coursebooks. They are created by the tutors who are English Department students. The number of the coursebooks is as many as the number of the International Study Programs. The

coursebook used for the students of International Mathematics Education Study Program consists of eleven units. The units are divided into two contexts which are daily life context and academic context. The first six units are included to daily life context while the rest of the units are included to academics context. The choices of the topics in every unit of the coursebook are around those two contexts and the major of the participants. Furthermore, each unit is enriched with multimedia materials whether they are videos or audios or videos and audios.

However, some weaknesses are found in the coursebook. Based on one of the lecturers who has reviewed the coursebook, the coursebook is not written scientifically. It is because in the process of writing the coursebook, the writers did not apply a certain approach though the activities in the coursebook were graded. A course needs an approach in order to maximize the aims of the course and the process of learning. Approach determines the order of what are learned by the students and the procedures written on the syllabus. Finally, syllabus will be used as a base in developing a coursebook.

Another weakness is that it is not clearly determined the level of difficulty of the coursebook, whether it is intended to be used by beginner, intermediate or advance level of the students. Based on the result of the interview with the students from Mathematic Education, their proficiency levels vary. They can be categorized in three groups which are beginner level, pre-intermediate and intermediate level group. The pre-intermediate level students take as the majority in group. Hence, they need the materials which suit their proficiency level.

Input is one of important elements in the task. Input should provide exposure which is relevant to the topic of the materials. The coursebook has some listening inputs which discuss topics beyond the topic of the materials, though the inputs contain language functions needed by the students. Furthermore, the coursebook do not provide evaluation task in each of the units. Evaluation task is needed in order to check the students' understanding after learning and carrying out the tasks in the unit.

According to one of the tutors of the speaking club, it is planned to have games in the process of teaching and learning, but the coursebook, especially the one that is intended to be used for the students of Mathematics education, has not provided games yet in order to support the activities during the process of teaching and learning. Because of that, the tutors will use supplementary materials to realize the plan of having games in the activities.

Although, there are countless commercial coursebooks, it seems that they are not meeting satisfactory to be used as the materials for English tutorial program. The topics and the language skills needed by the participants are specific. They are based on the participants' needs which are related to their majors. Although the language skills that they need can be provided by using the commercial books, the topics needed by the participants are hardly covered by one or two commercial course books.

From the elaboration above, it can be concluded that appropriate materials are needed in to assist the students' learning in the process teaching and learning effectively in order to improve their speaking ability. The materials should be

relevant to on the students' major, the students' proficiency levels and the context needed by the students.

### **C. Limitation of the Problems**

The participants of the English tutorials program need materials that can help them in improving speaking or oral communication in term of daily life context and academic context. Due to the limitation of the time, this research will focus developing appropriate English speaking learning materials for the intermediate level of students of International Mathematics Education Study Program in the academic context.

### **D. Formulation of the Problems**

The problems of this study are formulated as follows:

1. What are the target needs of the students of International Mathematics Education Study Program who join English tutorial program?
2. What are the learning needs of the students of International Mathematics Education Study Program who join English tutorial program?
3. What are the appropriate English speaking learning materials for the intermediate level of students of International Mathematics Education Study Program?



**E. Objectives of the Study**

This study is aimed at:

1. Identifying the target needs of the students of International Mathematics Education Study Program.
2. Identifying the learning needs of the students of International Mathematics Education Study Program.
3. Developing appropriate English speaking learning materials for the intermediate level of students of International Mathematics Education Study Program.

**F. Significance of the Study**

This study gives significances to some parties. The significance of this study is stated as the following:

1. To the English department

This study gives contribution in providing more resources and information for the Research and Development study.

2. To other researchers

This study gives them input and resources that facilitate them to do the same research in difference places.

3. To English instructors

The results of this study assist them to facilitate the students' learning and in providing appropriate materials for the students so that the teaching learning can take place effectively.

4. To materials designers

This study gives some valuable information in designing the same materials and gives them overview to create better materials later on.

5. To the students who join the English tutorial program.

The result of this study facilitates their learning and can be useful for improving their speaking ability.

## **CHAPTER II**

### **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

This chapter contains the underlying theories as the basis of conducting this research, and conceptual framework. Concepts related to this research are elaborated in order to support the implementation of this research. Those theoretical concepts will be formulated into conceptual framework that will describe the whole frame in doing this research.

#### **A. Review of related Literature**

##### **1. The Theories of Speaking**

###### **a. The Nature of Speaking**

Brown (2004:40) gives a definition of speaking as productive skill which can be observed both directly or empirically in which the observations are influenced by the accuracy and effectiveness of the students' listening skills which compromises the reliability and validity of an oral production test.

According Nunan (1989:32), in order to have successful oral communication, the speaker should develop:

the ability to articulate features of the language comprehensibly; mastery of stress, rhythm, intonation patterns; an acceptable degree of fluency; transactional and interpersonal skills; skills in taking short and long speaking turns; skills in the management of interaction; skills in negotiating meaning; conversational listening skills (successful conversations require good listeners as well as good speakers); skills in

knowing about and negotiating purpose for conversations, using appropriate conversational formulate and fillers.

Referring to the Nunan's statement above, it is clearly stated that in order to have good oral communication speakers should have such ability. Those abilities can be divided into two which are called as macro and micro skills of speaking

There are two basic functions of language than can be classified in most oral communication. The first is transactional language which is aimed for transferring information and interactional language that is intended to maintain social relationship (Nunan, 1989:27). Another issue drawn in speaking is the distinction between monologue and dialogue. Both of monologue and dialog require different skill to be able to do those activities.

In doing oral communication, the speakers deal with spoken language. Spoken language has different characteristics form written language. Brown and Yule (1983) on Nunan (1989:26) show some characteristics of spoken language which are:

- spoken language consists of short or often fragmentary utterances in range of pronunciation,
- the speakers often do repetition and overlap each other and the use of non-specific references frequently appeared,
- less conceptually dense because it consists of loosely organized syntax, the use of non-specific words and phrases and the use of fillers.

In conclusion, speaking is a productive that can be observed directly and empirically and the observation is influenced by the accuracy and fluency of the

students' listening skill. In order to be able to do oral communication, the speaker should develop macro and micro skills of speaking. In oral communication, the speaker may use language to do interactional or transactional communication. Moreover, the characteristics of language used in the oral communication is different from those used in the written communication.

### **b. Micro and Macro skills of Speaking**

As it has mentioned that in order to have good oral communication, speakers need to develop macro and micro skills in speaking. Brown (2004:142) gives a detail explanation of them. Below are micro and macro skills of speaking listed by Brown:

#### *Micro skills of speaking*

- 1) Produce differences among English phonemes and allophonic variants.
- 2) Produce chunks of language of different lengths.
- 3) Produce English stress patterns, words in stresses and unstressed positions, rhythmic structure and intonation contours.
- 4) Produce reduced forms of words and phrases.
- 5) Use an adequate number of lexical units (words) to accomplish pragmatic purposes.
- 6) Produce fluent speech at different rates of delivery.
- 7) Monitor one's own oral production and use various strategic devices (pauses, filter, self-corrections, backtracking) to enhance the clarity of the message.

- 8) Use grammatical word classes (noun, verb, etc) systems (tense, agreement, pluralization), word order, patterns, rules, and elliptical forms.
- 9) Produce speech in natural constituents: in appropriate phrases, pause groups, breath groups, and sentence constituents.
- 10) Express a particular meaning in different grammatical forms.
- 11) Use cohesive devices in spoken discourse.

*Macro skills of speaking*

- 1) Appropriately accomplish communicative functions according to situations, participants and goals.
- 2) Use appropriate styles, registers, implicature, redundancies, pragmatic, conventions, conversation rules, floor-keeping and –yielding, interrupting, and other sociolinguistic features in face-to-face conversations.
- 3) Convey link and connections between events and communicative such relations as focal and peripheral ideas, events and feelings, new information and given information, generalization and exemplification.
- 4) Convey facial features, kinesics, body language, and other nonverbal cues along with verbal language.
- 5) Develop and use a battery of speaking strategies such as emphasizing key words, rephrasing, providing a context for interpreting the meaning of words, appealing for the help, and accurately assessing how well your interlocutor is understanding you.

In conclusion, micro skill of speaking is related to the ability of the speaker to produce language, while macro skill of speaking is related to the ability of the speaker in using context and other things surround the speakers which can support the speakers to have good oral communication. Those two abilities are drawn when the speakers perform oral communication.

### **c. Basic Types of Speaking Performance.**

Speaking has several types of performance. Brown (2004: 141) divides speaking performance into five types as follows:

#### 1) Imitative.

The speaker simply imitative a word, phrase, or possibly sentence. This type of speaking concerns on pronunciation.

#### 2) Intensive.

Producing short stretches of oral language designed to demonstrate competence in a narrow band of grammatical, phrasal, lexical or phonological relationship, for example completing sentence or dialog.

#### 3) Responsive.

Having interaction through limited level of very short conversations, standard greetings and small talk, simple request and comments and soon.

#### 4) Interactive.

Responsive and interactive speaking are nearly the same. The difference is on the length and complexity of interaction which sometimes exchanges or multiple participants.

- 5) Extensive.
- 6) Extensive oral production tasks include speeches, oral presentations and storytelling

From each explanation above, it can be concluded that those speaking performances require the speaker to have micro skills of speaking because the performances are classified based on the length of language that should be produced by the speakers. Brown (2004: 120) adds that those performances compromise a category for procedure and assessment tasks.

#### **d. Classroom Speaking Activities**

Harmer (2001:271) mentions examples of speaking activities. The activities can be described as follows.

- 1) Acting from a script

Students are asked to perform scenes from plays, or their coursebooks, or the dialogue they have written themselves in front of the class.

- 2) Communication games

There are many types of games with their own purposes to provoke communication. However, the most widely-used game in speaking is information gap in which one student has to talk to a partner to solve a puzzle and soon.



3) Discussion

Discussion activity involves exchanging thought and ideas to other in order to reach a decision or a consensus, whether it is in group or whole class.

4) Prepared talk

Students make presentation on a topic of their own choice.

5) Questionnaires

Students can design questionnaire using any topic that is appropriate.

Questionnaire is useful because questioner and respondent have something to say each other.

6) Simulation and role-play

Students take a role of a character which different from themselves.

In conclusion, each of activity presented above has their own communicative purpose. Each of the activity requires students to do different activity which match to the communicative purpose that need to encounter.

There are two terms that cannot be separated from speaking. They are accuracy and fluency. The two terms influence the accuracy of the language produced by the speaker and the flow of the communication.

**e. Assessing Speaking**

Louma (2004:4) mentions that there are several stages in assessing speaking. Each of the stages requires people to act and interact to decide what needs to do in the next stages. Below is the cycle of speaking assessment by Louma (2004):

- 1) The realization to measure speaking ability of the students in order to measure the students' speaking ability.
- 2) Planning and developing stage. In this stage, the test developer decides what needs to be assessed, create the criteria of assessment, the assessment tasks and instruction to guide activities. According to Brown (2004:140), the criteria of the assessment consist of a number of elements such as pronunciation, fluency, vocabulary use, grammar, comprehensibility and soon).
- 3) Administration of the test. In this stage, there is an interaction between examinees, interlocutor and tasks. The examinees perform the assessment task with the interlocutors.
- 4) Evaluation. In this stage, the raters evaluate the performances with criteria which have been determined.
- 5) Score use. In this stage, scores are produced from the evaluation.

In assessing speaking there are two terms which are worth to be considered which are validity and reliability. The test developers should make sure that the assessment is valid and reliable. Validity relates to the right thing to be assessed, while reliability means ensuring that the test gives consistent and dependable results.

#### **f. Fluency and Accuracy in Speaking**

Fluency and accuracy are two terms that learners and teachers usually struggle to develop in speaking. Fluency is related to the flow of the speech. As stated by Chamber (1997) on Jong and Perfetti (2011: 534) that fluency refers to the flow and smoothness of the delivery. Speaking fluently means being able to deliver your ideas without thinking too much what you are saying. In the other hand, accuracy is related to the correctness of grammar and vocabulary in speaking. As pointed by Pollard (2008) that accuracy refers to correct use of language. Accuracy is not aimed to communicate ideas but it aims to produce correct language.

According to Nation (2009:152) fluency can be measured by speed of access or production and by the number of hesitations, while accuracy can be measured by the amount of errors. In more detail, fluency can be measured by looking at the speed and flow of language production, the degree of control items and the way language and content interact (Nation, 1989:377).

Though accuracy and fluency can be measured from different aspects, Nation (2009:152) says that to maintain the distinction of both accuracy and fluency is difficult. Nation (1989a) and Arevart and Nation (1991) on Nation (2009) found that an activity that was designed to increase fluency also resulted in the increase of accuracy. The increase of accuracy was indicated by a reduction of errors and increase in grammatical complexity.

There are some conditions that should be met in developing fluency. According to Nation (2009) those conditions can be described as follow: 1) The

activity is meaning-focused. It means that the communication of message becomes the learner's interest. 2) The learners take part in activities where all language items are within their previous experience. This means that learners are involved in the activity in which the required knowledge to do the activity is within the learners experience. The learners work on familiar topics and types of discourse in which the vocabulary and the structures are known by the learners. 3) There is support and encouragement for the learners to perform at a higher than normal level. Instead of those conditions, the learners should have plenty of opportunity inside and outside the classroom to take part in the meaning-focused experience tasks in order to develop their fluency in speaking.

The typical tasks or activities for improving accuracy in speaking, based on Pollard (2008:16), include repetition, drills, and controlled conversations. In the activities which focus on accuracy, teachers usually deal with error correction immediately.

Instead of theory of speaking, in order to develop appropriate materials for the participants of the English Speaking Club, it needs other theories to support the process of writing the materials. Since English Speaking Club is under the issue of English for Specific Purposes (ESP), theories related to it are needed. The key component of ESP is needs analysis. In order to develop appropriate learning materials of the course, needs analysis needs to be conducted. The theories related to them will be elaborated in the following.

## **2. English for Specific Purposes**

English as a foreign language has two branches which are General English (GE) and English for Specific Purposes (ESP). GE is applied on primary school, secondary school and adult tertiary. General English, according to Hutchinson and Waters (1987), is usually studied for exam purposes. In the other hand, ESP is applied on vocational schools and many of language courses in which the needs of the students are specific and different from that of those who are in General English.

### **a. Definition**

According to Hutchinson and Waters (1987: 19), ESP is not a product but it is an approach. They add that ESP is an approach to language teaching which is based on learners' needs. The determination of content and method in ESP are based on students' reasons for learning. Basturkmen (2010:3) states a similar idea about ESP that the focus of ESP courses is narrower than that of ELT courses because ESP courses concern on analysis of learners' need. Meanwhile, Swale (1992) in Knight et al (2010:34) elaborates the definition as follows:

.....the area of inquiry and practice in the development of language programs for people who need a language to meet a predictable range of communicative needs.

From the definitions given by those experts, it shows that ESP provides framework on designing language course where the course is designed to meet the students' needs.

ESP approach has some characteristics. According to Dudley-Evans and St. John (1984) as cited by Brunton (2009:2), ESP has absolute and variable characteristics.

#### Absolute characteristics

- ESP is defined to meet specific need of the learners.
- ESP makes use of underlying methodology and activities of the discipline it serves
- ESP is centered on the language appropriate to these activities in term of grammar, register, study skills, discourse and genre.

#### Variable characteristics

- ESP may be related to or designed for specific disciplines
- ESP may use, in specific teaching situations, a different methodology form that of General English.
- ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary schools level.
- ESP is generally designed for intermediate or advanced students
- Most ESP courses assume some basic knowledge of the language systems.

As the first consideration before designing a course is how to find out the needs of the students. In order to figure out their needs, course designers need to

do needs analysis. ESP provides guidance to what kinds of need that should be assessed.

## **b. Needs Analysis**

As stated in the definition of ESP that ESP is an approach based on students' needs, needs analysis is worth to be conducted in order to gather information of students' needs. Graves (2000:98) defines needs analysis as a systematic and ongoing process of gathering information about the needs and preferences of students. The results of needs analysis will be used as a base on determining the content and method in ESP courses so that those can be met the students' needs.

Hutchinson and Waters (1987:54) categorize needs into two types which are target needs and learning needs. Target needs concern with what the learners need to do in the target situation, while learning needs concern with what the learners need to do in order to learn.

### **1) Target Needs**

It is said that target needs is an umbrella term which contain a number of important points such as necessities, lacks and wants (Hutchinson and Waters, 1987). Below are the explanations of those three points.

#### **a) Necessities**

It is the type of needs which contains of what the learner has to know in order to function effectively in the target situation. Nation and Macalister (2010: 24) say

that necessity is something which is necessary for the students' use of language. Hutchinson and Waters (1987) give an example in term of necessities that a businessman may need to understand business letter, communicate at sales conferences and soon. Necessities of one student may different from other students. The example shows that language use needed by student or person is very specific and should be necessary for him doing his field.

In figuring out necessities, Hutchinson and Waters also state that:

“It is the matter of observing what situations the learner will need to function in and then analysing the constituent parts of them”

The statement implies that necessity is type of needs which covers language use needed by the students and the situation needed by the students to use the language.

### **b) Lacks**

According to Nation and Macalister (2010), lacks related to the question of “What do the learners lack?”. Identifying lacks has a function to find the gap in term of students' knowledge between their current knowledge or what learners know already and what learners do not know yet. Hutchinson and Waters state (1987: 56) that by knowing what students already know can help to decide which of the necessities that the learners lack.

### **c) Wants**

Wants refer to what the learners wish to learn (Nation and Macalister, 2010). Wants are based on the students' perception of what will be useful for them in



their learning. It is said in Hutchinson and Waters (1987:56) that learners may have clear idea of the necessities of the target situations. In conclusion, wants is the necessity which is derived from the students' point of view in the learning.

## **2) Learning Needs**

Both target needs and learning needs should be taken into consideration in doing needs analysis. Target needs will provide information of what learners do with language while learning needs will give information of what learners learn to do what they do with language (Hutchinson and Waters, 1987).

In conclusion, needs analysis is done in order to find out the target needs and learning needs of the students. This research will use needs analysis from ESP as the preliminary step in developing materials.

## **3. Content-Based Instructions**

### **a. Definition and Principles of CBI**

According to Richard (2001:204), Content-Based Instruction refers to an approach in which the organization of teaching is emphasized on the content or information that will be acquired by the students rather than linguistic or other types of syllabus. It is supported by Brinton, Snow and Wesche (1989) in Brown (2001:49) who state that CBI is an approach that integrates content learning with aims of language. In the application of CBI, language is not seen as subject, however language is used as a medium instruction. Brown (2001:49) states that the use of language as a medium of instruction builds the intrinsic motivation of

the students because the language is used to deliver informational content and relevance to the learners.

Every approach has its own principles. Brinton (2003) in Nunan (2004: 132) points out five principles for CBI. The principles are summarized by Nunan into the following:

- Base instructional decisions on content rather than language criteria.
- Integrate skills (integrated skills approach is used by the CBI practitioners to language teaching covering all four language skills as well as grammar and vocabulary).
- Involve students actively in all phases of the learning process (in CBI classroom, the students do not depend on teacher, they learn through doing and are actively engaged in the learning process)
- Choose content for its relevance to students' lives, interests and/or academic goals (the content on CBI courses is chosen based on the students and the instructional settings).
- Select authentic texts and tasks (CBI uses authentic tasks and materials).

#### **b. Theory of Language**

The assumptions of the nature of language underlie Content Based Instruction (Richards and Rodgers, 2001). Those assumptions include:

- Language is text- and discourse- based

The role of language in CBI is as a vehicle for learning content. This means that the centrality of linguistic is not only single sentences but it is

longer than them because the teaching is focused on how meaning and information are communicated and constructed through text and discourse. The linguistics units include of how longer stretches of language are used and the linguistics features that create coherence and cohesion within speech events and text types. It involves the study of the textual and discourse structure written texts such as letters, reports, essays, descriptions, book chapters, or of speech events such as meetings, lectures and discussions.

- Language use draws on integrated skills

In CBI, language use is viewed as involving skills together. The classroom activities involve activities that link the skills because the activities are intended to be similar like real word activities. The activities can be read and take notes, listen and write a summary, or respond orally to the things they have read or written rather than viewing grammar as a separate dimension of language. It is stated that the teacher or course developer is responsible for identifying relevant grammatical and other linguistic focuses to complement the topic or theme of the activities.

- Language is purposeful

Language is used for specific purposes. The purpose gives direction, shape, and ultimate meaning to discourse and texts. “For learners to receive maximum benefit from CBI they need to be in tune with its purposes and the language codes that signal and link these expressions of purpose”.

Some of adjustments and simplification that native speakers make in communicating with second language learners need to be made in order to

make content comprehensible to learners. Stryker and Leaver (1993) in Richards and Rodgers (2001) show the examples of these modifications. They include simplification (use the shorter T units and clauses), well-formedness (using few deviation from standard usage), explicitness (speaking with nonreduced pronunciation), regulation (use canonical word order) and redundancy (highlighting important material through simultaneous use of several linguistic mechanisms)

### **c. Theory of Learning**

In CBI model, language is learned through contents. The theory of learning is based on the one of the principles of CBI and one important corollary. The principle is “People learn a second language more successfully when they use the language as a means of acquiring information, rather than as an end itself”. The assumption is that successful language learning occurs when students are presented with target language materials in a meaningful, contextualized form with the primary focus on acquiring information (Brinton et al., Wesche, 1989:17 in Richards and Rodgers 2001:209). The important corollary is stated as “People learn second language most successfully when the information they are acquiring is perceived as interesting, useful, and leading into a desired goal”. It underlies the assumption which believes that language learning will be more motivating when students are focusing on something other than language, such as ideas, issues, and opinions.

The assumptions can be expressed as:

- 1) Some content areas are more useful as a basis for language learning than others

Geography is considered as the more effective subject matter to learn language in CBI. It is because geography highly visual, spatial, and contextual. In the practice, it may use maps, charts, and realia and the language tend to be descriptive in nature with use of to be, cognates and proper names.

- 2) Students learn best when instruction addresses students' needs

The content that will be learned by the students is selected based on their needs. The starting point for developing syllabus is provided by authentic texts (spoken and written) that students will meet in the real world.

- 3) Teaching builds on the previous experience of the learners

In teaching, the students' knowledge and previous experience are activated through the selected theme and activity.

#### **d. Design of CBI**

##### **1) Objectives and Syllabus**

Objective of Content-based Instruction is stated as the objective of content course. However, there is an exception for theme-based CBI that language learning objectives drive the selection of theme topics (Richard and Rodgers, 2001). Hence, there are set of linguistics objective on it. The typical syllabus in most CBI courses is drawn on the content area in which the detail and format of

the syllabus are vary. The syllabus on theme-based of CBI is slightly different that the content and instructional sequence on it is decided according to language learning goals.

Brinton (1989:32) in Richards and Rodgers (2001) show some objectives of CBI which are linguistic, strategic and cultural:

- 4) To activate and develop existing English language skills
- 5) To acquire learning skills and strategies that could be applied in future language development opportunities
- 6) To develop general academic skills applicable to university studies in all subject areas
- 7) To broaden students' understanding of English-speaking peoples

## **2) Types of Learning Activities**

Stoller (1997) on Richard and Rodgers (2001:212) presents a list of activities categorized based on their instructional focus. The classification categories are:

- Language skill improvement
- Vocabulary building
- Discourse organization
- Communicative improvement
- Study skills
- And Synthesis of content materials and grammar.

### **3) Learners' Roles**

“CBI is in the learning by doing school pedagogy” (Richard and Rodger, 2001). The statement implies that the learners should play an active role in several dimensions. It said by Stryker and Leaver (1993) in Richard and Rodger (2001) that goal of CBI is to make learners to be autonomous so that they realize their own learning process and take charge of their learning from the very beginning. As the students are expected to be active in the process of teaching and learning in the CBI courses, they are expected to:

- Be active in construing the input
- Have willingness in exploring alternative learning strategies
- Have willingness in seeking multiple interpretations of oral and written texts.

In order to be able to do their expected roles in CBI courses, the students need to be prepared both psychologically and cognitively because some students are reported not ready to accept the changes of the process of teaching and learning from traditional way to the CBI model of learning.

### **4) Teachers' Roles**

It is expected that the role of CBI teachers will be different from the typical role of language teacher. The teachers of CBI courses are not merely good language teacher but they have to be knowledgeable and able to elicit that knowledge from their students (Stryker and Leaver 1993: 292 in Richard, 2001).

Richard and Rodgers (2001: 214) mention the role of CBI courses that in more detailed level, CBI teachers have roles as stated in the following:

- They have to keep context and comprehensibility especially for their planning and presentation.
- They have responsibility to select and adapt authentic materials for use in class.
- They become student needs analysts.
- They have to create learner-centered classroom.

To play their role effectively and meaningfully for the students, the CBI teachers should have some essential skills. As suggested by Stryker and Leaver, those essential skills are:

- a. Creating variations in the format of classroom instruction
- b. Employing group work and team-building techniques
- c. Organizing jigsaw reading arrangements
- d. Defining the background knowledge and language skills required for students success
- e. Helping students develop coping strategies
- f. Using process approaches to writing
- g. Using appropriate error correction technique
- h. Developing and maintaining high levels of students esteem



## **5) The Roles of Materials**

Language learning will be facilitated if the materials are met the subject matter of the content course. CBI recommended authentic materials to be used to facilitate language learning (Richard and Rodger, 2001). There is a reason which underlies the choice of such materials. The reason is that authentic materials are not originally designed for academic purposes so that they contain rich of varieties. Such materials can be in the form of tourist guidebooks, technical journals, railway timetables, newspaper ads, radio, TV broadcast and soon.

Although authenticity is important, comprehensibility is as important as authenticity. Richard (2001: 215) notes that some modification for the authentic materials may need to do such as simplification of linguistics and adding redundancy to text materials to maximize comprehensibility.

It has been mentioned in the previous explanation about learning materials and the role of learning materials in Content-Based Instruction. The following explanations will explain more about learning materials, such as the definition, the criteria of good learning materials and materials related to English for mathematics.

### **4. Learning Materials**

#### **a. Definition and Criteria of Good Learning Materials**

Tomlinson (2012: 145) defines materials for language learning as anything that can be used for facilitating the learning of a language. Those can include

coursebooks, videos, graded readers, flash cards, workbooks, games, websites and so on. He adds that materials can be categorized as:

- informative (give information about the target language to the learners),
- instructional (guide the learners in practicing the language),
- experiential (provide the learners with experience of the language in use),
- eliciting (encourage the learners to use the language)
- explanatory (help the learners to make discoveries of language).

Learning materials will be considered to be good materials, if they meet the criteria of good learning materials. Tomlinson (1998: 7) lists characteristics of good materials for teaching language which are based on the principles of second language acquisition. Those are:

- 1) materials should achieve impact (novelty, variety, attractive presentation and appealing content).
- 2) materials should help the learners to feel at ease
- 3) materials should help the learners to develop confidence.
- 4) what is being taught should be perceived by the learners as relevant and useful
- 5) materials should require and facilitate learner self-investment
- 6) learners must be ready to acquire the point being taught
- 7) materials should expose the learners to the language in authentic use
- 8) the learners' attention should be drawn to linguistics features of the input
- 9) materials should provide the learners with opportunities to use the target language to achieve communication purposes

- 10) materials should take into account that the positive effects of instruction are usually delayed
- 11) materials should take into account that the learners differ in learning styles
- 12) materials should take into account that the learners differ in affective attitudes
- 13) materials should not rely too much on controlled practice
- 14) materials should provide opportunities for outcome feedback

Those criteria are general. They are often applied on most of language learning materials in general English. As the materials for the speaking club are different from general English materials, some criteria need to be specified and should be met the principles of the applied approach in developing the materials.

#### **b. Materials for English Tutorial Program**

The characteristics of good learning materials proposed by Tomlinson above are often applied on the general coursebooks which aim for teaching language in school. Since English tutorial program is under the issue of English for Specific Purposes, the materials needed for the program should be met the criteria of ESP. The key component of ESP is needs analysis. The materials should meet the learners' needs in terms of their target needs and learning needs. Furthermore, the materials should be based on the goal of English tutorials program. As the materials are for English tutorial program, the materials should give opportunities to practice oral communication in order to improve their speaking ability by using

the language which are necessary for the participants and appropriate for the situation they are in.

Skeldon in Tomlinson (2008:60) has reviewed some materials of English intended for Science and Technology. He explains what can be done by teachers in order to provide suitable and useful materials for the learners who have particular needs of language. First, the use of authentic material will help teachers to get genuine communicative purpose and simulate the content. Second, the input from authentic materials sometimes needs to be extracted in order to suit the students' level of proficiency. Then, there should be pre- activities such as reviewing key vocabularies of the topics before coming to the tasks. Use some illustration to help learners understanding the content of materials. Provide follow up activities in the materials so that the learners can recycle the ideas and vocabularies they had met in the opening of text. In the end of activities, provide the learners with some issues and ask them to have group discussion activities of the issues so that they have chance to express their own thoughts and ideas. Those criteria can also be applied in developing materials for the participants of English tutorial program majoring in Mathematics Education.

## **5. Materials Development**

### **a. Definition and Principles**

According to Tomlinson (1998:2) materials development refers to anything that is done by the practitioners to provide sources of language input for language learning. Graves (2000:149) defines that materials development is the planning

process by creating units. The lessons in the units are used to achieve the goal and objectives of the course. Tomlinson (2012: 143) notes that the process of materials development includes materials evaluation, their adaptation, design, production, exploitation and research. Similar idea is stated by Graves that materials development includes creating, choosing or adapting and organizing materials.

Tomlinson (2012:156) mentions some principles of materials development.

Those principles include:

- the language experience needs to be contextualized and comprehensible
- the learners need to be motivated, relaxed, positive and engaged
- the language and discourse features available for potential acquisition need to be salient, meaningful, and frequently encountered.
- the learner need to achieve deep and multi-dimensional processing of language

From the definition above, materials development is intended to provide language input in or learn language. In its process, materials development has some steps or procedure. The procedure of materials development is based on the model of materials development which is adapted.

#### **b. Model of Materials Development**

According to Gall, Gall and Borg (2003:570), the most widely-known procedure of product development is the model proposed by Walter Dick and Lou

Carey. The model consists of ten steps. Below is the description of each step of Dick and Carey's model:

- Step 1 : Defining the goals for the instructional program or product.
- Step 2 : Undertaking instructional analysis to identify the specific skills, procedures and learning tasks that are involved in reaching the goal of instruction.
- Step 3 : Identifying the learners' entry skills and attitudes, the characteristics of the instructional setting and the characteristics of the settings in which the new knowledge and skills will be used.
- Step 4 : Translating the needs and goals of instruction into specific performance objectives.
- Step 5 : Developing assessment instruments.
- Step 6 : Developing a specific instructional strategy for assisting learners with their efforts to achieve each performance objective.
- Step 7 : The development of instructional materials which may include print materials such as textbooks and teacher training manuals or other media such as audiocassettes or interactive video systems.
- Step 8 : Designing conductive and formative evaluation of instruction.
- Step 9 : Revising instruction.
- Step 10 : Designing and Conducting summative evaluation.

Step 2 and 3 may overlap each other or simultaneously. Step 8, 9, 10 involve the distinction between formative and summative evaluation.

## **6. Unit Design Development**

Materials contain some units. As part of materials, a unit consists of a number of activities or tasks that will be used for learners to carry out their goals and objectives. Nunan (2004) provides some principles of designing unit.

### **a. Principles of Unit Design**

Nunan (2004:35) mentions seven principles of unit developments. Those principles are:

#### **1. Scaffolding**

Lesson and materials should provide supporting frameworks for learners within which the learning occurs. It is stated that the learners should not be asked to produce language that has been introduced at the beginning of the learning. The scaffolding should not be removed too early, so that it can scaffold the next activities in the learning process. But it cannot be maintained too long because the students need to develop the independence required for autonomous language use.

#### **2. Task dependency**

“Within a lesson, one task should grow out of, and build upon, the ones that have gone before”. It means that the task is exploited and built on that which has gone before. By doing so, the learners are led step by step in order to be able to do the final pedagogical task in the sequence. There are a number of other principles within the task-dependency framework. They are receptive-to-productive principle and reproductive-to-creative language principle. The

learners, first, spend greater proportion of time on receptive tasks (listening and reading) than productive tasks (speaking and writing). Later, the proportion changes into productive work.

### 3. Recycling

When learners are introduced to linguistics items, they will not one hundred percent acquire the linguistics items. Hence, learners need to be reintroduced with them over a period of time. Recycling allows the learners to meet the linguistics item in a range of different environment both linguistic and experiential. It also shows the use of linguistics items in different context.

### 4. Active learning

The learners learn best through doing acting out using the language they are learning rather than constructing their knowledge or being passive achieving knowledge transmitted by the teacher. The important point in the learning is the learners actively do the work not the teacher.

### 5. Integration

Some aspect of language learning such as linguistics form, communicative function and semantic meaning should not be taught separately. The teaching should make clear the relationship between because in effective communication those things are essential.



#### 6. Reproduction to creation

Learners are led to have mastery on form, meaning and function through productive tasks. Then they are provided with creative tasks in which they are recombining elements in new ways.

#### 7. Reflection

Learners are given opportunities to do reflection on what they have learned and how well they are doing. Nunan (2004: 35) mentions that based on research “learners who are aware of the strategies driving their learning will be better learners” than those are not aware of it.

Those seven principles are drawn on the developed materials. Teachers or materials developers should also determine model of unit design as a framework to organize activities within the units

### **b. Model of Unit Design**

Nunan (2004:31) proposed six-step procedures that enable the learners to carry out the tasks in the units. Those procedures consist of:

#### 1) Step 1: Schema building.

In this first step a number of schema-building exercises are develop in order to serve as the introduction about the topic, set the context, some of key vocabularies and expressions.

#### 2) Step 2: Controlled practice

In this step, the students are provided with controlled practice in using language vocabulary, structure and functions.

3) Step3: Authentic listening practice.

The learners are given opportunity to practice listening intensively by listening to a number of native speakers.

4) Step 4: Focus on linguistics elements

The students take part in a sequence of exercise in which the focus is on one or more linguistics elements.

5) Step 5: Provide freer practice

The students involve with reproductive language work.

6) Step 6: Introduce the pedagogical task

The students are introduced with pedagogical task in which the activity is done in groups.

The procedures above, elaborate the organization of tasks within the unit. In organizing tasks, it raises the issues of tasks grading and sequencing. Instead of those procedures, there many of aspects that need to be considered in organizing the tasks within the units so that the students are able to carry out all of the tasks effectively.

### **c. Task Grading and Sequencing**

Tasks in the unit should be put on a good organisation. A good organization covers the matter of grading, sequencing and integrating of the task. To do such matter some factors are worth considering. Nunan (2004:114) mentions the factors that are input, procedures and learners. Another thing should be taken into consideration is level of difficulty. As emphasized by Nunan (2004: 85) that the

issue of difficulty is a central of importance to researcher and other practitioners. The task should be graded form the easier task to the more difficult one. Furthermore, difficulties covers few aspects such as difficulty which is related to the input especially linguistics description and difficulty in the matter of the ability of learners in acquiring particular language items.

#### 1) Grading Input

Input may cause difficulty to students in comprehending it. In grading the input, many of things are worth considering. The first is the complexity of the input in term of grammatical factors. Other things that affect difficulty are the length of the text, propositional density, the amount of low-frequency vocabulary, the speed of spoken texts and the number of speakers involved, and the explicitness of the information.

The discourse and clarity also affect the difficulty of the input. For example, a paragraph in which the main point is stated implicitly is more difficult than that in which the main point which is stated explicitly in the opening of the paragraph. A passage in which the chronological is the same as the chronological order in the real life will be easier to process than one that its information is presented out of sequence. In addition, a passage supported with photographs, drawings, tables, graphs and soon will be easier than that which is not supported by such things. Another factor is the type of the text. It is argued by genre theorists that narratives, recounts, descriptive texts will be easier to process than abstract or argumentative texts involving the expression of opinions and attitudes.

## 2) Learner factors

In the matter of comprehension especially in reading, there are two factors which are factors which are factors inside the learners and outside the learners. Factors inside the learners (Pearson and Johnson,1972 on Nunan, 2004) are background knowledge, interest, motivation and soon. It is stated that comprehension is a process of building bridges between existing knowledge and new knowledge. It means that, in order to comprehending something, the learners use their pre-existing knowledge and try to fit the new knowledge. The new knowledge may not fit into their pre-existing knowledge, then, modification and adaptation of the framework are needed or develop an entirely new mental framework altogether.

Brindley (1987) in Nunan (2004:120) suggest other factors in addition to background knowledge. They include confidence, motivation, prior learning experience, learning pace, observed ability in language skills, cultural knowledge / awareness and linguistics knowledge.

## 3) Procedural factors

Procedural factors are related to the operation that learners are expected to perform on input data. To control the difficulty of the input is not done by simplifying the input data but by varying the level of difficulty of the procedures. The complexity of what learners have to do can be determined by the some factors. According to Nunan (2004:123), those factors include relevance, complexity, amount of context provided prior to the task,

processibility of language of the task, amount of help available to the learner, degree of grammatical complexity, time available to the learner, and follow-up.

**d. Task Continuity**

Nunan (2004:125) cites that continuity refers to the interdependence of tasks, task components and supporting skills inside an instructional sequence. There are some approaches in sequencing tasks mentioned on Nunan. One of the approaches is psycholinguistics processing approach in which the tasks are sequences based on the cognitive and performance made upon the learners. He presents steps in sequencing tasks based on the approach which contain three phase (processing/comprehension, productive and interactive). Each phase contains a number of steps. Those steps expect learners to carry out activities which move from comprehension-based procedures to controlled production activities and exercises, and finally to those which require authentic communicative interaction. Other factors such as the logic of themes and learning pathways can also be taken into consideration in sequencing the tasks instead of the tasks complexity as determined by input, learner and procedural factors.

**e. Within Task Sequencing**

According to Nunan (2004:128) the sequence within task is divided into three phases which are a pre-task phase, a task-proper phase and follow up phase. A pre-task phase serves as schema building tasks. The phase functions to orient

learners to the task, generate interest and rehearse essential language that will be needed to complete the task. Task-proper phase is where learners complete the task. In the follow-up phase, learners get questions from the teacher about the work they have done, reports the results of the task to the whole class, and they may be given corrective feedback from the teacher. The phase may serve also as a bridge to the pre-ask phase of the next task cycle.

## **7. Task Design Development**

### **a. Task Definition**

Task, according to Branden (2006:4), is an activity in which a person engages to reach an objective and require the use of language. Nunan (2004: 1) divides tasks into two types which are real-world task or target task and pedagogical task. Target tasks refer to language uses in the world beyond the classroom while pedagogical tasks refer to language uses that occur in the classroom. According to Long (1985:89) on Nunan, target task is a piece of work which is carried out for oneself or for others, freely or because of some reward. Nunan (2004:4) defines pedagogical task as follow:

.....pedagogical task is a piece of classroom work that involve learners in comprehending, manipulating, producing or interacting in the target language while their attention is focused on mobilizing their grammatical knowledge in order to express meaning and in which the intention is to convey meaning rather than manipulate from.

Task has some characteristics. Skehan (1998) in Nunan (2004:3) lists five characteristics of task which are:

- Meaning is primary

- Learners are not given other people's meaning to regurgitate
- There is some sort of relationship to comparable real-world activities
- Task completion has some priority
- The assessment of the task is in terms of outcome

Instead of those characteristics, task has some elements or components which make up the task. Those components will be elaborated in the next explanation.

### b. Task Components

A task has elements that make up the task. As mentioned by Nunan (2004: 41), those elements consist of goals, input data and learners procedures which are supported by teacher, learners roles and setting in which the tasks are carried out. Those elements can be conceptualized through the diagram below:

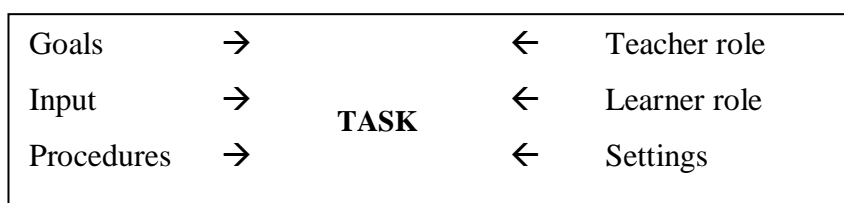


Figure 2.1 Task Components

There are some experts who suggest similar elements as Nunan's. Shavelson and Stern (1981:478) in Nunan (2004: 40) suggest that tasks should contain the following elements, such as content (the subject matter to be taught), materials (the things that learners and teacher will be doing during a lesson), goals (the teacher's general aims for the task), students (their ability, need and interest are important) and social community (the class as a whole and its sense of groupness).

Similar idea is also mentioned by Candlin (1987) in Nunan (2004:40) that a task has elements such as input, roles, settings, actions, monitoring, outcomes and feedback.

Below is the elaboration of six components of task according to Nunan (2004:41).

#### 1) Goals

Shavelson and Stern (1981) in Nunan (2004:40) define goals as general aims of the teacher for the tasks. Similar idea is stated by Nunan (2004) that goals are the vague, general aims behind any learning task. It is stated that goals are more general than formal performance objectives. Goal is considered as an important aspect of task because it gives direction to both any given task and the curriculum as a whole.

A range of general outcomes may be associated to goals or goals may directly describe teacher or learner behaviour. The connection between goals and tasks is not always a simple one-to-one. It is possible to have more than one goal in a complex task. In addition, goal may not be stated explicitly but it can be found out through inferring it from the task.

The goal statements which are considered as the most useful statement are those which relate to the student not the teacher and those that are expressed in terms of observable performance.



## 2) Input

Nunan (2004:47) states that input refers to data that learners work with in completing a task. The data can be in the form of spoken, written and visual. The sources of the data may come from a teacher, a textbook or any other sources.

There are two types of input, authentic input and non-authentic input. Authentic inputs are those that have been produced for communication purposes not for language teaching purposes. Regarding to the matter of authenticity, Nunan emphasizes that what is more important is not the matter of authenticity or not but what combination of authentic which provide learners with optimal learning opportunities especially written materials.

Brown and Menasche (1993) on Nunan (2004) make distinction type of materials regarding to authentic or non-authentic materials.

- a) Genuine: created for the realm of real life but used in the classroom
- b) Altered: the original version is altered in other ways without changing the meaning (the insertion of glosses, visual resending, the addition of visuals)
- c) Adapted: authentic material that have been simplified in terms of vocabulary and grammatical structures.
- d) Simulated: created for language teaching purposes by using characteristics of genuine texts.
- e) Minimal / incidental: created for the classroom with no intention to make the material look genuine.

According to Brinton (2003) and Snow and Brinton (1997) on Nunan (2004:52), authentic content can be taken from subject areas in the school curriculum and the activities can be adapted from relevant academic disciplines.

### 3) Procedure

In relation to the input data, procedure plays a role in forming the point of departure for learning task by specifying what learners will do with the input. One of criteria in selecting task is authenticity. As mentioned by Candlin and Edelhoff (1982) on Nunan (2004:53) that it is not only the authentic input which is brought into the class but the process of dealing with the input should also be authentic. This statement is reinforced by Porter and Roberts (1981) on Nunan (2004:53) that using authentic texts in non-authentic ways limits the potential of the materials as resources for language learning.

Nunan suggests some ways on analyzing tasks. First is by analyzing task in term of what extent the task requires the learners to rehearse some communicative behaviours they will use outside the classroom. Second is the focus n goal of the tasks, whether the tasks are concerned with skill getting and skill using. The concern in skill getting is the learners are able to master phonological, lexical, and grammatical forms through memorization and manipulation, while in skill using they apply those skills in communicative interaction. Next is whether the tasks are focused in accuracy or fluency. Brumfit on Nunan points out that though both issues are differentiated in term

of materials and activities but they are actually complementary. In addition, Skehan (1998) on Nunan (2004) shows that different types of tasks result different degree of accuracy, fluency and complexity. The last distinction that can be used to evaluate procedures is the locus of control. Usually, in the skill-getting activities the control is on the teacher. However, in role plays, simulation and soon, the control is much more on the learners.

#### 4) Teacher and Learners roles

As it is mentioned before that the locus of control of the procedures may rests on the teacher or the learners. It means that teachers and learners have contribution in carrying out the tasks. As mentioned by Nunan that 'roles' refer to the part in which teachers and learners are required to take part in carrying out task and also the social and interpersonal relationships between the participants.

According to Nunan (2004) , the roles of learners can be described as follows:

- a) the learner is a passive recipient of outside stimuli
- b) the learner is an interactor and negotiator who is capable of giving as well as taking
- c) the learner is a listener and performer who has litte control over the content of learning
- d) the learner is involve in a process of personal growth

- e) the learner is involved in a social activity, and the social and interpersonal roles of learner cannot be divorced from psychological learning processes
- f) the learner must take responsibility for his or her own learning, developing autonomy and skills in learning how-to-learn.

The teacher needs to adopt a different role in order to give learner a more active role in the classroom. Problem may appear if there is a mismatch between the role perception between teachers and learners. If such problem arises, the teacher needs to strike a balance between the role that the teacher feels appropriate and the role that is demanded by the students.

Breen and Candling (1980) in Nunan (2004:67) state that in the communicative classroom, teacher has three main roles which are: acting as facilitator of the communicative process, acting as a participant and acting as an observer and learner.

## 5) Settings

Setting is the arrangements of classroom which are implied in the tasks. It relates to the students configuration in carrying out task. In the communicative classroom, it is possible that a wide range configuration is applied although in the practice the configuration may be limited by the size of the class. Wright (1987:58) in Nunan (2004:71) illustrates some of ways in grouping students in the activities such as individual, pair work, small group, and whole class.

In order to achieve the goal embedded in the tasks, those components of tasks should be taken into consideration in creating tasks and carrying out the tasks. In addition, the types of the tasks also give contribution in achieving the goal. Below is the elaboration of what kind of tasks that can be applied in the classroom

### c. Task Types

Mastery on a certain skill can be achieved through certain types of tasks. Types of task needed by students to help them in achieving mastery on speaking skills will be different from those needed to help them in order to master reading skill. Nunan (2004: 58) proposes classifications of tasks according to the strategies behind tasks. They are:

Table 2.1 Classifications of Tasks

<b>Cognitive</b> Classifying Predicting Inducing Taking Notes Concept Mapping Inferencing Discriminating Diagraming	Putting similar things in groups Predicting what will learned in the process of learning Looking for patterns and regularities Writing down the important text using their words Pouring the main ideas in a text in the form of a map Learning something new by using what students already know Differencing between the main idea and supporting information Labelling a diagram using information from a text
<b>Interpersonal</b> Co-operating Role playing	Sharing ideas and learning with other students Pretending to be somebody and employing the language for the situation students are in
<b>Linguistics</b> Conversational patterns Practicing Using context Summarizing	Using expressions to start conversations and keep them going.  Doing controlled exercises in order to improve knowledge and skills Guessing the meaning of an unknown word, phrase, or

Skimming	concept using surrounding context Picking out and presenting the major points in a text in the form of summary Getting a general idea of a text though reading quickly
<b>Affective</b> Personalizing Self-evaluating  Reflecting	Learners share their own opinions, feelings and ideas about a subject Thinking about how well they did on a learning task and rating themselves on a scale Thinking what way would be the best in learning
<b>Creative</b> Brainstorming	Thinking of as many new words and ideas as one can

If Nunan proposes the task types based on the strategies behind the tasks, another expert, Richard (2001:162) on Nunan, recommend some pedagogical tasks which are based on an analysis of communicative language use as follows:

- Jigsaw tasks. Learners combine different pieces of information o form a whole.
- Information-gap tasks. These tasks involve transferring given information activity in which one student has one set of information and another student or group has a complementary set of information.
- Problem-solving tasks. The students should find out the solution from the given problem using given information.
- Decision-making tasks. Students should choose an outcome from a number of possible outcomes to solve the given problem through negotiation and discussion.
- Opinion exchange tasks. Students exchange their opinions through discussion.

In conclusion, task is an activity in the procedures used as vehicle to achieve the goal of learning. A task consists of some elements in which each of the elements can determine the type of the task.

## **8. Materials Evaluation**

The completed materials will be evaluated whether they are appropriate or not to be used for students in process of teaching and learning. The materials evaluation will be based on a systematic check of all important variables and there are some steps in conducting materials evaluation.

Evaluation, based on Hutchinson and Waters (1987:96), relates to the judgement of appropriateness of something for particular purposes. It means that materials evaluation is the matter of judging the fitness of materials for students for particular purposes in learning. Ellis on Tomlinson (1998:222) mentions two kinds of evaluation which are macro-evaluation and micro-evaluation. Macro evaluation is programme/project evaluation, while micro-evaluation is evaluation of a specific task.

Ellis provides a framework of materials evaluation. Below is the process of materials evaluation according to her.

- a. Step 1: Description of the task. It covers contents (input, procedures, language activity) and objectives.
- b. Step 2: Planning evaluation
- c. Step 3: Collecting Information
- d. Step 4: Analysis of the information collected
- e. Step 5: Conclusion and recommendation

Before doing materials evaluation, it is important to find the criteria of the evaluation. The criteria of the materials evaluation will be based on the criteria of

materials evaluation for Vocational School by BSNP which consist of four aspects. They include content, presentation, language and lay out.

## **B. Conceptual Framework**

The English Speaking Club needs materials to assist the students learning which are appropriate with the needs of the participants in terms of their majors and proficiency levels. Therefore, suitable materials need to be developed.

The materials are developed based on the criteria of good learning materials. According to Tomlinson (1998:7), good materials should have impact of novelty and variety, should be relevant and useful, develop the students confidence, put students at ease and soon. While according to Skeldon on Tomlinson (2008:60), good learning materials has characteristics such as suitable and useful for the students with particular need of language, materials help students to get genuine communicative purpose, materials suits to the students' level of proficiency, materials provide pre-activities and follow up activities, materials use illustrations to help students to understand the content of the materials and finally the materials allow students to have discussion activities to express their own thought and ideas.

English Speaking Club is under the issue of English for Specific Purpose. Hence, the materials are developed based on this approach as well. According to Hutchinson and Waters (1987:19), English for Specific Purposes is an approach to language teaching which is based on the learners' needs. The procedure of



materials development will be based on the model of materials development proposed by Gall, Gall and Borg (2003).

The preliminary step in developing materials is administering needs analysis. According to Basturkmen (2010), needs analysis is the key component of ESP. It aims to find out the needs of the participants. The needs analysis is done by distributing needs analysis questionnaire to the students. The questionnaire contains a number of questions which have purpose to figure out the students 'target needs and leaning needs.

The second step in developing the materials is writing course grids. The result of needs analysis will show the students' preferences. And those will be used as base in writing the course grids. The course grids consist of a number of elements which are the number of the unit, unit title, topic, indicators, language functions, language focus, procedure and input.

The course grids, then, are used to develop units. There are three units that are developed in this research. Those units are developed based on Content-Based Instruction approach proposed by Richard and Rodgers (2001). According to Richards and Rogers (2001: 204), Content-Based Instruction is an approach which the organization of teaching is emphasized on the information or the content that will be acquired by the students. It means that CBI integrates contents of learning with aims of language. Therefore, the topics for the materials will be in line with the students' major and the choices of the topics will be based on the results of needs analysis.

A unit is made up of tasks. A task is made up from elements. According to Nunan (2004:41), task has six elements which are goal, input, procedure, teacher's roles, learner's role and setting. Therefore, the tasks are developed by referring to those elements.

In developing tasks, it is not only those elements that are worth considering but the organization of tasks within the units is also important so that the tasks can be carried out effectively by the students. The tasks within the units are sequenced and organized by using Nunan's principles as well.

Then, after developing the materials, the developed materials are evaluated to check whether they meet the criteria of good materials and the needs of the participants or not. The evaluation will be done by distributing expert judgment questionnaires to two experts. The expert judgment questionnaire is written based on the criteria on the "*Instrumen Penilaian Buku Teks Pelajaran Bahasa Inggris*" from BSNP (*Badan Standarisasi Nasional Pendidikan*) 2007. The materials are evaluated in terms of four aspects which are content, language, presentation and layout.

Finally, the purposes of this research are to describe the target needs and the learning needs of the students and to develop the English speaking learning materials for the intermediate level of students of International Study Program of Mathematics Education in terms of academic context.

## **CHAPTER III**

### **RESEARCH METHODS**

In the previous chapter, it has been elaborated the theories related to this research. This chapter describes the methodological steps carried out in this research. The description includes research design, research setting, research subjects, research procedure, data collection techniques, instruments and data analysis techniques.

#### **A. Research Design**

This research was classified into Research and Development (R&D) that adapted the framework of developing English learning materials by Gall, Gall and Borg (2003). According to Gall, Gall and Borg (2003), Research and Development is industry-based study. The results of R&D are used to develop or design new products and procedures.

#### **B. Research Setting**

The research was conducted from May 2013 to June 2014. It was carried out in the Independent Language Learning Center (ILLC) of the Center of Language Development (*P2B*) located in LPPMP building, first floor, Yogyakarta State University, Karangmalang, Yogyakarta.

### **C. Research Subjects**

The subjects of the research were the students of International Study Program of Mathematics Education who joined the English Speaking Club. The number of the research subjects was 21 students.

### **D. Research Procedure**

The research procedure employed in this research was adapted from Gall, Gall and Borg (2003). Those steps can be described as follows:

1. Collecting data and information

In collecting the data and information, researcher conducted preliminary observation, literature review and needs analysis. The data and information were collected with the intention to find out the students learning needs and target needs. After the data were gathered, they were used as the basis in developing the materials. Therefore, the material developed would meet the students' needs.

2. Writing course grids /syllabus

The next step after obtaining the data was writing the course grid. The course grid was written based on the students' learning needs and target needs. And then it was used as the guideline to develop the materials. The course grid contained some aspects such as title of the unit, topic, indicators, language focus, procedure and input.

3. Developing the first draft of the materials

The first draft of the material was developed by referring to the course grid and using the appropriate inputs. The material was developed into three units in which each unit was made up from a number of tasks. In this step, comments and suggestion from experts were needed to produce good materials.

4. Evaluating the first draft of the materials (expert judgment)

After finishing writing the first draft of the materials, the researcher asked experts to evaluate the draft whether the developed material was appropriate for the students or not by distributing evaluation questionnaires to two experts. The suggestions and feedback from the experts were used to revise the materials.

5. Revising the first draft and writing the final draft of the materials

The first draft that had been evaluated by the experts was revised by referring to the comments and suggestions given by the experts. The revision of the first draft then was written as the final draft.

6. Making conclusions and recommendation

After writing the final draft, the researcher wrote the conclusion and recommendation regarding to the materials.

### **E. Data Collection Techniques and Instruments**

The data collection technique employed in this research was the use of questionnaires. There were two types of questionnaires employed in this research

which were needs analysis questionnaire and evaluation or expert judgment questionnaire.

#### a. Needs Analysis Questionnaire

The needs analysis questionnaire was distributed to the students to find out the students' target needs and learning needs. The questionnaire consisted of a number of questions in which each question has some options. The students were asked to choose one or more the options in the questions or write their own options which were not exist in the options. Below is the organization of needs analysis questionnaire.

Table 3.1 The Organization of Needs Analysis Questionnaire

No	Aspect	Number of Items	Purpose of the questions	References
1	Students personal identity	1	To find out personal information about the learners.	Graves (2000: 103)
2	Necessities	2, 3, 4, 5	To find out the students' needs related to the demand of the target situation from an objective sense.	Hutchinson and Waters (1987: 55)
3	Lacks	6, 7, 8,	To find out the gap between students' existing knowledge and the required knowledge level.	Hutchinson and Waters (1987: 55)
4	Wants	9	To find out the students' needs related to the target situation from the students' point of view.	Hutchinson and Waters (1987: 56)
5	Goal	10	To find out the expectation of the students to the English learning.	Graves (2000: 104)

6	Input	11, 12, 13,	To find out the content that should be carried out in the tasks which are designed.	Nunan (2004: 47)
7	Procedures	14, 15, 16, 17,	To find out what the students should do with the tasks.	Nunan (2004: 52)
8	Setting	18	To find out whether the tasks should be carried out in group work, pair work or individual work.	Nunan (2004: 70)
9	Learners' role	19	To find out the learners' role in the classroom.	Nunan (2004: 64)
10	Teachers' role	20	To find out the teacher's role in the classroom.	Nunan (2004: 67) and Harmer (2001:58)

#### b. Expert Judgment Questionnaire

The expert judgment questionnaire was distributed to material expert after finishing writing the first draft. It was used to evaluate the materials whether they were appropriate or not for the students in term of their content, their presentation, their language and their graphic or lay out. The organization of the expert judgment questionnaire is listed below.

Table 3.2 The Organization of Expert Judgment Questionnaire

No	Components of Evaluation	Aspects	Item Number	References
1	Content	Completeness	1, 2	BSNP (2007)
		Depth	3, 4, 5, 6, 7	BSNP (2007)
		Accuracy	8, 9, 10	BSNP (2007)
		Life Skill Development	11	BSNP (2007)
2	Language	The	12	BSNP (2007)

		appropriateness at developmental level of Students		
		Communicative	13	BSNP (2007)
		Grammatical Accuracy	14, 15, 16	BSNP (2007)
		The unity of Ideas	17, 18	BSNP (2007)
3	Presentation	Systematic	19	BSNP (2007)
		Balance between the Units	20	BSNP (2007)
		Students' centeredness.	21, 22, 23	BSNP (2007)
		Creativity	24	BSNP (2007)
		Autonomous	25	BSNP (2007)
		Self-Evaluation	26, 27	BSNP (2007)
		Presentation Completeness	28, 29, 30, 31, 32	BSNP (2007)
4	Graphic	Typography	33, 34, 35,36,37, 38	BSNP (2007)

## F. Data Analysis Technique

There were two types of data which were quantitative data and qualitative data. Quantitative data were presented in the form of number. These data derived from the results of data analysis from both questionnaires. Qualitative data were presented in the form of sentences. They were derived from comments and suggestions given by the experts and the results of data conversion from expert judgment questionnaire.

The data obtained from needs analysis questionnaire were presented in the form of percentage. The students' tendency was shown by the highest percentage of the data. The data were analyzed manually using the following formula:



$$\text{Percentage (100)} = \frac{f \times 100\%}{N}$$

where:

f : Frequency  
 N : total number of the students  
 100 : fixed number

The data from expert judgement questionnaires were measured using Likert scale. According to Penera, Heneghan, and Badenoch (2008:67), Likert scale is a scale that is most commonly used in questionnaire. It is used to assess inter-rater agreement in which the agreement or the answer of one question has two different positions. Likert scale can be expressed in several types such as 3-point, 4-point, 5-point, 7-point. In this research, the 4-point scale of Likert scale was applied.

The data from the expert judgement were then calculated using the mean formula (central tendency) proposed by Levine and Stephen (2010:63):

$$\text{Mean} = \frac{\sum X_i}{n}$$

where:

$\sum X_i$  : the sum of data values  
 n : the number of data values that were summed

and range formula proposed by Suharto (2006).

$$R = \frac{X_1 - X_0}{4}$$

Where:

R : range  
 $X_1$  : Highest score  
 $X_0$  : Lowest Score  
 4 : the scale

The results were then converted into descriptive analysis based on the conversion table adapted from Suharto (2006:51-52).

Table 3.3 Data Conversion Table

<b>Scale</b>	<b>Range</b>	<b>Categories</b>
1	$2.9 < X \leq 3.24$	Poor
2	$3.25 < X \leq 3.49$	Fair
3	$3.5 < X \leq 3.74$	Good
4	$3.75 < X \leq 4$	Very Good



## **CHAPTER IV**

### **RESEARCH FINDINGS AND DISCUSSION**

This chapter presents the findings of this research which was held from May 2013 to June 2014 and discussion. The findings cover the results of the need analysis, the course grid, the unit design, the first draft of the materials, the expert judgment, and the final draft of the materials. This chapter, then, ends with the discussion of the findings.

#### **A. Research Findings**

##### **1. The Results of the Needs Analysis**

The needs analysis was conducted on October, 2013 at Yogyakarta State University. The needs analysis questionnaires were distributed to twelve students of International Mathematics Education Study Program of who were in semester IV. The questionnaire consisted a number of questions which covered the description of the students' target needs and learning needs.

##### **a. The Description of the Students**

The respondents of the need analysis questionnaire were students of International Program of Mathematics Education who were in semester IV. In term of their proficiency level, the students were categorized as an intermediate level category. The description of the respondents is presented in the following table.

Table 4.1: Data of Respondents of the Needs Analysis

Number of the respondent	Sex		Age
	Male	Female	
12	2	10	19 – 20 years old

### b. The Description of Target Needs

According to Hutchinson and Waters (1987:54), target needs are what the learners need to do in the target situation. Target needs consists three aspects which are necessities, lack, and wants.

#### 1) Necessities

Hutchinson and Waters (1987:55) define necessities as what the learners need to know in order to function effectively in the target situation. The descriptions of the students' necessities are presented in the following table:

Table 4.2 Necessities of the Students for Now

Item Number	Question	Responses	Percentage (%)
1	Right now, I need speaking skill in English in order.....	a. to be able to do learning activity effectively in the lecturing sessions.	91.7
		b. to be able to communicate with lecturers.	50
		c. to be able to communicate with friends.	66.7
		d. to be able to communicate with foreign tourists	41.7
		e. others	16.7

Table 4.2 shows that for now the students need English to be able to do learning activity effectively in the lecturing sessions (91.7 %) and to communicate with their friends (66.7%).

Table 4.3 Necessities of the Students in the Future

Items Number	Questions	Responses	Percentage
2	In the future, I need speaking skill in English in order to.....	a. to continue study to post-graduate.	91.7
		b. to study abroad.	83.3
		c. to do job interview.	91.7
		d. to communicate with colleague.	75
		e. to do job such as do presentation.	83.3
		f. others....	0

Table 4.3 shows that in the future, the students need English to continue to study to post graduate (91.7 %) and to do job interview as well (91.7 %).

Table 4.4 Language Functions

Item Number	Question	Responses	Percentage (%)
3	Language functions or expressions that I will occasionally need in order to improve my speaking skill in terms of academic context is/are.....	a. asking for someone's opinion	91.7
		b. saying you have opinion	83.3
		c. asking for explanation	50
		d. giving explanation	75
		e. agreeing	75
		f. disagreeing	83.3
		g. describing concepts	83.3
		h. suggesting	91.7
		i. arguing	50
		j. making generalizations	91.7
		k. others....	0

Table 4.4 shows that the students want to study language functions such as asking for someone opinions (91.7 %), suggesting (91.7 %) and making generalizations (91.7 %).

Table 4.5 Important Elements in Speaking

Item Number	Question	Responses	Percentage (%)
4	In my opinion, the important element/s in speaking is/are....	a. fluency	75
		b. clear pronunciation	83.3
		c. a wide range of vocabulary	83.3
		d. grammatical accuracy	83.3
		e. confidence	75
		f. others.....	0

Table 4.5 shows that the important aspects in speaking for the students are clear pronunciation (83.3%), a wide range of vocabulary (83.3%), and grammatical accuracy (83.3%).

## 2) Lacks

Lacks are related to the gap of the students about what that they have already had and what they have to know in the target situations. The descriptions of the students' lacks are presented in the following tables.

Table 4.6 The Students' Level of Proficiency

Item Number	Question	Responses	Percentage (%)
5	In general, my English proficiency is....	a. I cannot communicate orally at all in English.	0
		b. I find it a little bit difficult to understand when somebody talks to me in English and using various topics.	25
		c. I can speak in English in the situation and topic that I have known but I make many mistakes.	41.7
		d. I can speak in English in various situations and	33.3

		various topic but I still make mistakes	
		e. I can respond in English when somebody talks to me using English.	33.3
		f. I have no problems in understanding what people say in English in various topics.	8.3

Table 4.6 shows that 41.7 % of the students are able to speak in English in the situation and used topic that they have already known, although they still made mistakes. 33.3 % of students are able to speak in English in various situations and use various topics though they still make mistakes and the same numbers of students (33.3 %) are able to respond when somebody talks in English. The students with those characteristics can be categorized as pre-intermediate students.

Table 4.7 The Students' Difficulties in Communicating in English

Item Number	Question	Responses	Percentage (%)
6	In communicating orally in English, I find it difficult when I have to...	a. find the appropriate words for the sentences that I am going to say.	58.3
		b. express particular expressions or language functions.	50
		c. pronounce the words correctly.	33.3
		d. memorize formulas such as tenses.	33.3
		e. apply grammar to the sentences that I am going to say.	66.7
		f. understand particular terms in Mathematics.	58.3
		g. others....	0



Table 4. 7 shows that in communicating in English, 66.7 % of the students find it difficult to apply grammar to the sentences that they were going to say and 58.3 % of the students have difficulty in finding appropriate words for the sentences that they are going to say and understanding particular terms in mathematics.

Table 4.8 The Students' Vocabulary Mastery

Item Number	Question	Responses	Percentage (%)
7	The number of English vocabulary related to Mathematics that I have mastered are	a. < 100 words.	16.7
		b. 100-500 words.	75
		c. 500-1000 words.	0
		d. > 1000 words.	8.3

Table 4.8 shows that most of the students about 75 % of the students have mastered 100 - 500 English words related to Mathematics.

### 3) Wants

Wants is considered as what the students wants to learn.

Table 4.9 The Students' Wants in Learning Process

Item Number	Question	Responses	Percentage (%)
8	In general, I want that the learning process in the English tutorial program will help me...	a. to able to speak English more fluently.	83.3
		b. to be able to speak English accurately.	83.3
		c. to be able to understand the lectures' handouts better.	58.3
		d. others....	0

Table 4.9 shows that 83.3 % of the students wanted that the learning process in the English tutorial program can help them to be able to speak English more

fluently and accurately and 58.3 % of the students wanted that the learning process in the English tutorial program can help them to be able to understand the lectures' handouts better.

### c. The Description of Learning Needs

Learning needs is considered as what the learner needs to do in order to learn (Hutchinson and Waters, 1987:60). Learning needs covers six aspects which are: goal, input, procedures, setting, learners' role and teachers' role.

#### 1) Goal

Table 4.10 The Goal of the Students

Item Number	Question	Responses	Percentage (%)
9	My goal in participating in English tutorial program in terms of academic context is/are....	a. to help me to be able to master vocabulary related to my study program in order to understand spoken and written texts.	83.3
		b. to help me to be able to master vocabulary related to my study program and use them in oral communication.	75
		c. to help me to be able to master grammar and apply them in the oral communication with friends and lecturers inside the classroom.	41.7
		d. to help me to be able to respond somebody using appropriate expressions or language functions.	58.3
		e. others....	0

Table 4.10 shows that most of the students (83.3 %) want that English tutorial program can help them in mastering vocabulary related to their study program in order to be able to understand spoken and written texts and 75% of the students vote that English tutorial program can help them in mastering vocabulary related to their study program and using them in oral communication.

## 2) Input

Table 4.11 Topics of the Materials

Item Number	Question	Responses	Percentage (%)
10	The topics that I want to cover in the English materials for English tutorial program activities in term of academic context are...	a. integers.	58.3
		b. fraction.	41.7
		c. notation.	50
		d. linear equation.	50
		e. set and number of a set.	50
		f. quadrilateral.	58.3
		g. line and angles.	33.3
		h. triangles.	58.3
		i. circles.	50
		j. algebra.	58.3
		k. Pythagorean Theorem.	25
l. others...	16.7		

Table 4.11 shows that students want to have integers, quadrilateral, triangles and algebra as the topics that they are going discuss in learning speaking as 58.3 % of the students vote for those topics.

Table 4.12 Types of Input

Item Number	Question	Responses	Percentage (%)
11	Learning inputs in the English materials for English tutorial program Activities that I want are in the form of.....	a. monologue/dialogue	83.3
		b. short monologue/dialogue that is/are performed in front of class.	75
		c. authentic materials such as news, movie clips, song etc.	41.7
		d. others....	0

Table 4.12 shows that 83.3 % of the students choose monologue and dialogue as the input that they want to learn and 75 % of the students wanted to have short monolog/dialog that are performed in front of the class

Table 4.13 Input Length

Item Number	Question	Responses	Percentage (%)
12	The type of inputs that I am suppose to have contains...	a. 150-200 words.	25
		b. 200-250 words.	58.3
		c. 250-300 words.	16.7
		d. > 300 words.	0

Table 4.13 shows that the length of the input should be 200-250 words long as 58.3% of the students vote for it.

### 3) Procedures

Table 4.14 Learning Procedure

Item Number	Question	Responses	Percentage (%)
13	Learning activity that I want to have	a. topic discussion in pairs.	66.7
		b. topic discussion in group.	75

in the process of learning in the English tutorial program in order to improve my speaking ability in term of academic context is/are....	c. presentation.	66.7
	d. practice dialog in pairs.	75
	e. role play.	58.3
	f. games.	75
	g. others...	0

Table 4.14 shows that the students want to have activities like topic discussions in group and games as 75% of the students vote for both of them. The activity of discussion in pairs and do presentation are voted by 66.7 % students.

Table 4.15 Learning Vocabulary Procedure

Item Number	Question	Responses	Percentage (%)
14	In learning English vocabulary in the process of learning in the English tutorial program, types of activity that I like is/are....	a. guessing the meaning from the contexts.	66.7
		b. completing blank spaces in the paragraph with provided words.	50
		c. completing the blanks spaces in the paragraph with your own words.	50
		d. identifying parts of speech.	50
		e. others...	16.7

Table 4.15 shows that in order to improve their vocabulary mastery, 66.7 % of the students want to have activity of guessing the meaning of particular vocabulary from the context. 50% of the students also vote for both of complete blank spaces in the paragraph with provided words and their own words.

Table 4.16 Learning Grammar Procedure

<b>Item Number</b>	<b>Question</b>	<b>Responses</b>	<b>Percentage (%)</b>
15	In learning grammar in the process of learning in the English tutorial program, type of activity that I like is/are....	a. identifying mistakes in sentences and correct them.	66.7
		b. creating sentences using the learned pattern of grammar.	66.7
		c. completing paragraph with grammatically correct sentences.	66.7
		d. others...	0

Table 4.16 shows that in order to improve their knowledge of grammar, the students want to have activity like identifying mistakes in sentences and correct them, creating sentences using the learned pattern of grammar and completing paragraph with grammatically correct sentences because 66.7 % of the students choose for each of them

Table 4.17 Learning Pronunciation Procedure

<b>Item Number</b>	<b>Question</b>	<b>Responses</b>	<b>Percentage (%)</b>
16	In learning pronunciation in the process of learning in the English tutorial program, types of activity that I like is/are...	a. repeating the speaker/tutor's pronunciation loudly.	33.3
		b. given pronunciation transcription on the particular vocabulary.	91.7
		c. pronouncing words that have been given pronunciation transcription.	50
		d. others	0

Table 4.17 shows that in order to improve their pronunciation, 91.7 % of the students want to be given pronunciation transcription on the particular vocabulary

and 50 % of the students wanted to practice pronunciation of the vocabulary that have been given phonetic transcription.

#### 4) Setting

Table 4.18 Setting

Item Number	Question	Responses	Percentage (%)
17	In learning speaking it is better to do the activities in....	a. individual.	50
		b. pairs.	75
		c. small group.	66.7
		d. big group.	50
		e. others...	0

Table 4.18 shows that the students want to do activities in pairs (75 %) and in small group (66.7%).

#### 5) Learners' Role

Table 4.19 Learners' Role

Item Number	Question	Responses	Percentage (%)
18	When I learn speaking, it will be better if I	a. listen to the tutor explanation and take a note.	50
		b. listen to the tutor's explanation and do his/her instructions.	66.7
		c. participate actively in the discussion activity and share opinion with the tutor and my classmate about particular topic.	58.3
		d. learn individually in a quite classroom.	33.3

Table 4.19 shows that 66.7 % of the students want to listen to the tutor's explanation and do his/her instructions, while 58.3 % of the students want to participate actively in the discussion activity and sharing opinions activity with the tutor and my classmate about particular topics.

#### 6) Teachers' Role

Table 4.20 Teachers' Role

Item Number	Question	Responses	Percentage (%)
19	In process of learning, I want tutors act as...	a. resource (the tutor acts as knowledge and information sources who gives you examples before you practice the task).	91.7
		b. organizer (tutor organizes you to do various activities).	58.3
		c. prompter (tutor encourages you to think creatively by giving a clue)	75
		d. observer (tutor observes what you do and gives individual or group feedback).	58.3
		e. controller (tutor takes in charge of the class and of the activity).	50
		f. assessor (tutor offer feedback and correction and grades you in various way).	91.7
		g. others...	8.3



Table 4.20 shows that the students want that in the process of learning the tutor acts as resource and assessor as 91.7 % of the students vote for each of those roles and 75% of the students want that the tutor acts as prompter.

## **2. The Course Grid**

The course grid was written after the researcher found out the target needs and the learning needs of the students. The students' preferences were shown by the highest percentage of the students' answers in the needs analysis questionnaire. The course grid, then, was written in accordance to the highest percentage of the target needs and learning needs.

The course grid was written as the guideline for developing the materials. The researcher wrote three course grids as the learning materials were developed into three units. The course grids covered a number of elements which were unit, unit title, topic, indicators, language function, language focus, procedure and input. Language focus consisted of two sub elements that were vocabulary and grammar. The course grids can be seen in the Appendix C.

## **3. The Unit Design**

The next step after writing the course grid was developing materials. The learning materials were developed into three units. Each of the units was developed and sequenced using the same procedure.

Each of the units has unit title page before the given activities. The typography of each unit title page of the units has the same elements. The number of the unit

is in the up-left corner of the page. The title of the unit is written next to the number of the unit. The title is written based on the topic that were going to discuss and the language functions that were going to learn. Below the unit title, there is a picture. The picture illustrates the activities that were going to learn by the students in the unit. Below the unit title, then there is a box contained two or three short paragraphs which are intended to give brief description about what the students need to learn and to do in the unit.

A unit is made up from a number of tasks. Each of the units of the developed learning materials consisted 15 – 16 tasks. The tasks consisted listening and speaking tasks. Table 4.21 in the following describes the outline of the unit design in the developed materials.

Table 4.21 The Outline of the Unit Design

<b>Component</b>	<b>Purpose</b>
A. Let's Get Started	It contains two tasks in which the first task is used to introduce the language functions that the students are going to learn in the unit and the second task is used to brainstorm the students' knowledge about the topic that are going to discuss.
B. Let's Take Action	It consists of a number of tasks in which the tasks are provided in order to achieve the learning objectives. This part consists of listening and speaking tasks. The tasks are divided into guided-task, semi-guided task and free-guided task.
C. Let's Do More	It serves as speaking task. This part consists of one task to apply what the students have learned in the previous tasks.
D. Evaluation	It consists of one task which aims to evaluate the students about what they have learned in the unit. The evaluation task is free-guided task.
E. Homework	The homework task is real-world task which s intended to ask the students to apply what they have learned in the classroom, outside the classroom.
F. Let's Make Reflections	It aims to provide self-assessment and peer-assessment for the students so that they students are able to

	measure their ability after learning the unit.
G. Summary	It aims to provides the students the summary of language functions and grammar that they have learned in the unit.
H. Vocabulary List	The vocabulary list is provided in order to give the students review of the vocabulary that they meet in the unit. The vocabulary list covers the English words, parts of speech, pronunciation transcription, and Indonesian equivalent.

#### 4. The First Draft of the Materials

The first draft of the materials was developed according to the unit design described above. The materials consisted of three units in which each of them was developed based on the figure below. The first draft of the materials can be seen in the Appendix D.

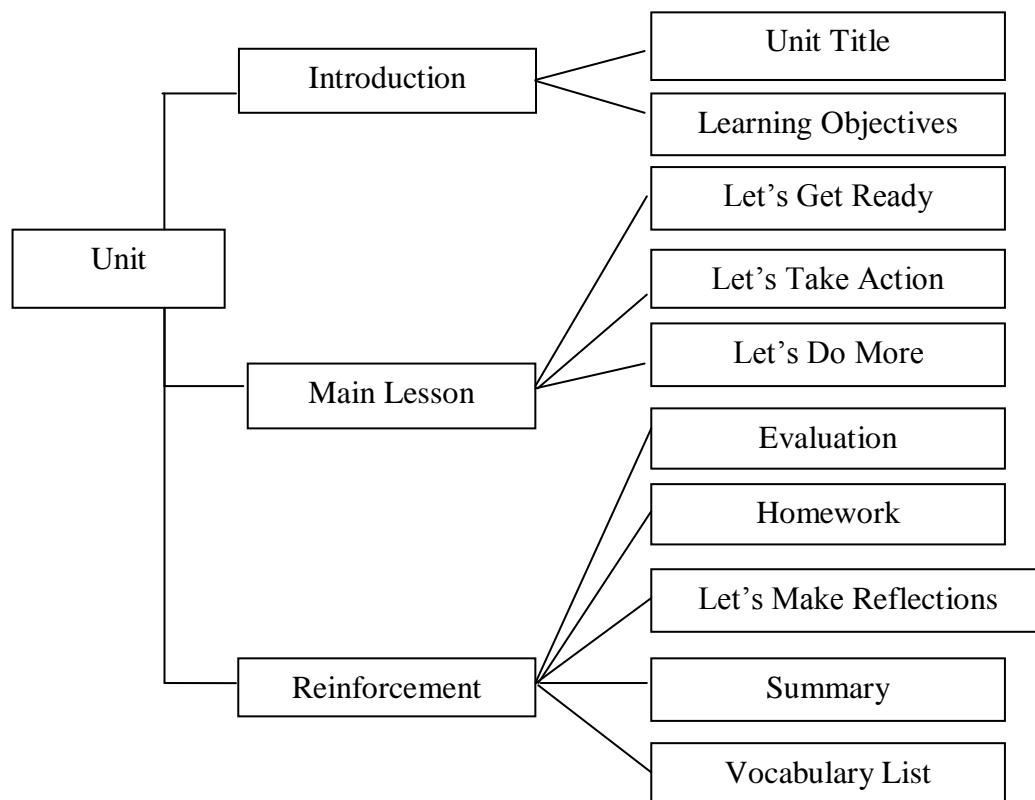


Figure 4.1 The Unit Design of the Materials

Each unit of the developed learning materials had 15-16 tasks. The description of each task in each unit of the first draft of the materials can be seen in the appendix E. The description covers the unit title, parts of the unit, each task instruction and brief description of each task.

## **5. The Expert Judgment**

The next step after the researcher developed the first draft of the materials was evaluating the appropriateness of the draft according to the criteria released by BSNP (2007). The evaluation was done by materials expert. The expert judgment was done by distributing the expert judgment questionnaire to the materials expert. The questionnaire covered four aspects which are the appropriateness of the content, the language, the presentation and the lay out. The questionnaire can be seen in the appendix F. The expert is permanent lecturer of English Education Department of Yogyakarta State University. She has Master of Arts degree and graduates from Canberra University, Australia. By looking at her expertise and experience, her assessments are considered to be valid.

### **a. The Results of the Expert Judgment and Revision Unit 1**

#### **1) The Results of the Expert Judgment Unit 1**

As mentioned before, the expert judgment covers four aspects namely the appropriateness of the content, the appropriateness of the language, the appropriateness of the presentation and the appropriateness of lay out.

**a) The Appropriateness of the Content**

The analysis of the content appropriateness is shown by Table 4.22.

Table 4.22 The Appropriateness of the Content of Unit 1

<b>Item Number</b>	<b>Statement</b>	<b>Score</b>
1	The developed materials are suitable for the needs of the students of International Study program of Mathematics Education in semester four.	4
2	The developed materials are suitable for the academic context of the students of International Study program of Mathematics Education in semester four.	4
3	The developed materials contain texts which are appropriate with the needs of the students of International Study program of Mathematics Education in semester four.	3
4	The developed materials contain language functions which are appropriate with the academic context of the students of International Study program of Mathematics Education in semester four.	3
5	The texts are suitable with the topic.	3
6	The pictures are suitable with the topic.	3
7	The tables are suitable with the topic.	3
8	The developed materials encourage the students to do interpersonal and transactional communication.	3
9	The developed materials encourage the students to understand the meaning structures and linguistics features of the texts.	4
10	The developed materials lead the students to develop their communication skill accurately and appropriately based on a communicative context.	3
11	The developed materials motivate the students to develop personal, social and academic life skills.	4
<b>Mean (<math>\bar{x}</math>)</b>		3.4

It is shown by Table 4.22 that the mean value of the appropriateness of the content of unit 1 is 3.4. It is categorized as “Fair” as its positions is in the interval  $3.25 < x \leq 3.49$ .

### b) The Appropriateness of the Language

Table 4.23 shows the analysis of the language appropriateness.

Table 4.23 The Appropriateness of the Language of Unit 1

Item Number	Statement	Score
12	The language used is suitable for the English proficiency of the students of International Study program of Mathematics Education in semester four.	4
13	The instructions and explanations in the materials can be easily understood by the students of International Study program of Mathematics Education in semester four.	4
14	The language used in the materials is grammatically correct.	3
15	The spelling is in accordance with the principles of English grammar.	3
16	The choice of words of the materials is in accordance with the principles of English grammar.	3
17	The information in the materials is coherence.	3
18	The information in the materials is cohesive.	3
<b>Mean (<math>\bar{x}</math>)</b>		3.3

It is shown by Table 4.23 that the mean value of the appropriateness of the language of unit 1 is 3.3. It is categorized as “Fair” as its positions is in the interval  $3.25 < x \leq 3.49$ .

### c) The Appropriateness of the Presentation

Table 4.24 shows the analysis of the presentation appropriateness.

Table 4.24 The Appropriateness of the Presentation of Unit 1

Item Number	Statement	Score
19	The tasks are sequences from the easiest one to the most difficult one.	4
20	The number of the task is balance among the units.	4
21	The tasks are students-centered.	4

22	The tasks encourage the students to participate actively in the classroom.	4
23	The tasks encourage the students to do oral communication effectively.	4
24	The tasks encourage the students to be creative in the process of learning.	3
25	The tasks encourage the students to be responsible in their own learning process.	4
26	The tasks encourage the students to know their success and lack in the learning and in communicating in English.	4
27	The tasks cover evaluation task in order to measure the students' ability about the materials that they have learned.	3
28	The tasks contain vocabulary related to the topic of the unit.	4
29	The tasks consist of guided activities and free-guided activity	4
30	The unit consists of opening activities.	4
31	The unit consists of main activities.	4
32	The unit consists of closing activities.	4
<b>Mean (<math>\bar{x}</math>)</b>		3.85

It is shown by Table 4.24 that the mean value of the appropriateness of the language of unit 1 is 3.85. It is categorized as "Very Good" as its positions is in the interval  $3.75 < x \leq 4$ .

#### d) The Appropriateness of the Layout

. Table 4.25 shows the analysis of the layout appropriateness.

Table 4.25 The Appropriateness of the Layout of Unit 1

Item Number	Statement	Score
33	The design of the materials uses good typography (Unit title, sub-title, page numbers, illustrations, caption and soon)	3
34	The fonts are not too various.	4
35	The fonts are readable.	4

36	The colors used do not disturb the delivery of information.	3
37	The pictures are provided for aesthetic purposes	3
38	The pictures are provided for functional purposes	3
<b>Mean (<math>\bar{x}</math>)</b>		3.3

It is shown by Table 4.25 that the mean value of the appropriateness of the layout of unit 1 is 3.3. It is categorized as “Fair” as its position is in the interval  $3.25 < x \leq 3.49$ .

Finally, the mean value from all aspects of unit 1 is 3.52. It can be concluded that unit 1 is categorized as “Good” since the position of the mean value is in the interval  $3.5 < x \leq 3.74$ .

## 2) The Review of Unit 1

From all aspects above, it shows that the developed learning materials are appropriate. However, there are some parts that still need to be revised. The suggestions given by the experts to revise the materials are described in the following:

First of all, in term of content, if it is possible, add some texts talking about the topic. Some questions in the comprehension tasks are just too easy for university students. Therefore, it will be better to change the questions into high-order thinking questions.

In term of language, it is better to be careful in the word choices in some questions. Check and make sure that the questions do not cause misinterpretation.

For the presentation, there's no need to do revision. However, in term of layout, it is better to give more white spaces so the pages in the materials are not too



crowded. In addition, more pictures are better to be added to give illustration of the delivered information.

### 3) The Revision of Unit 1

In order to improve the quality of the developed learning materials, the experts gave some suggestions and recommendations to revise some aspects of the developed learning materials. Table 4.25 in the following describes the point of revisions of unit 1 and the revisions.

Table 4.26 The Revisions of Unit 1

Parts of the Unit	Point to Revise	Revision
Task 1	-	No revision
Task 2	-	No revision
Task 3	-	No revision
Task 4	Some of the questions are not effective. What are their opinions <u>toward</u> the topic?	The word <i>toward</i> was replaced by <i>about</i> .
	The question “where did Colby’s materials come from?” is better to be revised.	The question was revised into “where did Colby take the materials from?”
	The question “what can the topic be applied to?” is not clear.	The question was revised into “in what kind of other fields can the topic be applied to?”
Task 5	-	No revision
Task 6	-	No revision
Task 7	-	No revision
Task 8	-	No revision
Task 9	The word <i>formulas</i> should be indented.	The position of the word <i>formulas</i> was indented.
	The sentence “For example, if we go to supermarket to buy some food or drink we don’t need to use sin or tangent” should be indented.	The sentence was indented.
Task 10	Add <i>for</i> after the word <i>asking</i> in the instruction.	The word <i>for</i> was added to the word <i>asking</i> .

Task 11	-	No revision
Task 12	-	No revision
Task 13	-	No revision
Task 14	-	No revision
Task 15	-	No revision

## **b. The Result of the Expert Judgment and Revision Unit 2**

### **1) The Result of the Expert Judgment Unit 2**

#### **a) The Appropriateness of the Content**

The analysis of the content appropriateness is shown by Table 4.27.

Table 4.27 The Appropriateness of the Content of Unit 2

<b>Item Number</b>	<b>Statement</b>	<b>Score</b>
1	The developed materials are suitable for the needs of the students of International Study program of Mathematics Education in semester four.	4
2	The developed materials are suitable for the academic context of the students of International Study program of Mathematics Education in semester four.	4
3	The developed materials contain texts which are appropriate with the needs of the students of International Study program of Mathematics Education in semester four.	3
4	The developed materials contain language functions which are appropriate with the academic context of the students of International Study program of Mathematics Education in semester four.	4
5	The texts are suitable with the topic.	3
6	The pictures are suitable with the topic.	3
7	The tables are suitable with the topic.	4
8	The developed materials encourage the students to do interpersonal and transactional communication.	4
9	The developed materials encourage the students to understand the meaning structures and linguistics features of the texts.	4
10	The developed materials lead the students to develop their communication skill accurately and appropriately based on a communicative context.	4
11	The developed materials motivate the students to	4

	develop personal, social and academic life skills.	
<b>Mean (<math>\chi</math>)</b>		3.7

Table 4.27 shows that the mean value of the appropriateness of the content of unit 2 is 3.7. It is categorized as “Good” due to its position in the interval  $3.5 < x \leq 3.74$ .

#### b) The Appropriateness of the Language

Table 4.28 shows the analysis of the language appropriateness.

Table 4.28 The Appropriateness of the Language of Unit 2

Item Number	Statement	Score
12	The language used is suitable for the English proficiency of the students of International Study program of Mathematics Education in semester four.	4
13	The instructions and explanations in the materials can be easily understood by the students of International Study program of Mathematics Education in semester four.	4
14	The language used in the materials is grammatically correct.	3
15	The spelling is in accordance with the principles of English grammar.	3
16	The choice of words of the materials is in accordance with the principles of English grammar.	3
17	The information in the materials is coherence.	4
18	The information in the materials is cohesive.	4
<b>Mean (<math>\chi</math>)</b>		3.6

Table 4.28 shows that the mean value of the appropriateness of the language of unit 2 is 3.6. It is categorized as “Good” due to its position in the interval  $3.5 < x \leq 3.74$ .

**c) The Appropriateness of the Presentation**

Table 4.29 shows the analysis of the presentation appropriateness.

Table 4.29 The Appropriateness of the Presentation of Unit 2

<b>Item Number</b>	<b>Statement</b>	<b>Score</b>
19	The tasks are sequences from the easiest one to the most difficult one.	4
20	The number of the task is balance among the units.	4
21	The tasks are students-centered.	4
22	The tasks encourage the students to participate actively in the classroom.	4
23	The tasks encourage the students to do oral communication effectively.	4
24	The tasks encourage the students to be creative in the process of learning.	3
25	The tasks encourage the students to be responsible in their own learning process.	4
26	The tasks encourage the students to know their success and lack in the learning and in communicating in English.	4
27	The tasks cover evaluation task in order to measure the students' ability about the materials that they have learned.	3
28	The tasks contain vocabulary related to the topic of the unit.	4
29	The tasks consist of guided activities and free-guided activity	4
30	The unit consists of opening activities.	4
31	The unit consists of main activities.	4
32	The unit consists of closing activities.	4
<b>Mean (<math>\chi</math>)</b>		3.8

Table 4.29 shows that the mean value of the appropriateness of the presentation of unit 2 is 3.8. It is categorized as "Very Good" due to its position in the interval  $3.75 < x \leq 4$ .

#### d) The Appropriateness of the Layout

Table 4.30 shows the analysis of the presentation appropriateness.

Table 4.30 The Appropriateness of the Layout of Unit 2

Item Number	Statement	Score
33	The design of the materials uses good typography (Unit title, sub-title, page numbers, illustrations, caption and soon)	3
34	The fonts are not too various.	4
35	The fonts are readable.	4
36	The colors used do not disturb the delivery of information.	3
37	The pictures are provided for aesthetic purposes	3
38	The pictures are provided for functional purposes	3
<b>Mean (<math>\bar{x}</math>)</b>		3.3

Table 4.30 shows that the mean value of the appropriateness of the layout of unit 2 is 3.3. It is categorized as “Fair” due to its position in the interval  $3.25 < x \leq 3.49$ .

Finally, the mean value from all aspects of unit 2 is 3.7. It can be concluded that unit 1 is categorized as “Good” since the position of the mean value is in the interval  $3.5 \leq x \leq 3.74$ .

#### 2) The Review of Unit 2

From all aspects above, it shows that the developed learning materials are appropriate. However, there are some parts that still need to be revised. In general, the review of unit 2 has the same aspect of revisions as unit 1.

First of all, in term of content, if it is possible, add some texts talking about the topic. Some questions in the comprehension tasks are just too easy for

university students. Therefore, it will be better to change the questions into high-order thinking questions.

In term of language, it is better to be careful in using perfect tense. Check whether the perfect tense that are used in instructions do not cause misunderstanding for example “you have learned” is written “you have been learned”.

For the presentation, there’s no need to do revision. However, in term of lay out, it is better to give more white spaces so the pages in the materials are not too crowded and more pictures to give illustration of the conveyed information.

### 3) The Revision of Unit 2

In order to improve the quality of the developed learning materials, the experts gave some suggestions and recommendations to revise some aspects of the developed learning materials. Table 4.31 in the following describes the point of revisions of unit 2 and the revisions.

Table 4.31 The Revisions of Unit 2

<b>Parts of the Unit</b>	<b>Point to Revise</b>	<b>Revision</b>
Task 1	-	No revision
Task 2	-	No revision
Task 3	-	No revision
Task 4	-	No revision
Task 5	-	No revision
Task 6	It is better to give illustration to add the information that is being talked about in the conversations.	One relevant picture to illustrate the information in each conversation was given.
Task 7	-	No revision
Task 8	-	-
Task 9	-	No revision

Task 10	-	No revision
Task 11	The word <i>some</i> is better replaced by word <i>two</i> .	The word <i>some</i> is replaced by word <i>two</i> .
Task 12	-	No revision
Task 13	-	No revision
Task 14	-	No revision
Task 15	-	No revision
Task 16	-	No revision

### c. The Result of the Expert Judgment and Revision Unit 3

#### 1) The Result of the Expert Judgment Unit 3

##### a) The Appropriateness of the Content

The analysis of the content appropriateness is shown by Table 4.32.

Table 4.32 The Appropriateness of the Content of Unit 3

Item Number	Statement	Score
1	The developed materials are suitable for the needs of the students of International Study program of Mathematics Education in semester four.	4
2	The developed materials are suitable for the academic context of the students of International Study program of Mathematics Education in semester four.	4
3	The developed materials contain texts which are appropriate with the needs of the students of International Study program of Mathematics Education in semester four.	3
4	The developed materials contain language functions which are appropriate with the academic context of the students of International Study program of Mathematics Education in semester four.	4
5	The texts are suitable with the topic.	3
6	The pictures are suitable with the topic.	3
7	The tables are suitable with the topic.	4
8	The developed materials encourage the students to do interpersonal and transactional communication.	4
9	The developed materials encourage the students to understand the meaning structures and linguistics features of the texts.	4
10	The developed materials lead the students to develop	4

	their communication skill accurately and appropriately based on a communicative context.	
11	The developed materials motivate the students to develop personal, social and academic life skills.	4
<b>Mean (<math>\chi</math>)</b>		3.7

Table 4.32 shows that the mean value of the appropriateness of the content of unit 3 is 3.7. It is categorized as “Good” due to its position in the interval  $3.5 < x \leq 3.74$ .

#### b) The Appropriateness of the Language

Table 4.33 shows the analysis of the language appropriateness.

Table 4.33 The Appropriateness of the Language of Unit 3

Item Number	Statement	Score
12	The language used is suitable for the English proficiency of the students of International Study program of Mathematics Education in semester four.	4
13	The instructions and explanations in the materials can be easily understood by the students of International Study program of Mathematics Education in semester four.	4
14	The language used in the materials is grammatically correct.	3
15	The spelling is in accordance with the principles of English grammar.	3
16	The choice of words of the materials is in accordance with the principles of English grammar.	4
17	The information in the materials is coherence.	4
18	The information in the materials is cohesive.	4
<b>Mean (<math>\chi</math>)</b>		3.7

Table 4.33 shows that the mean value of the appropriateness of the language of unit 3 is 3.7. It is categorized as “Good” due to its position in the interval  $3.5 < x \leq 3.74$ .



**c) The Appropriateness of the Presentation**

Table 4.34 shows the analysis of the presentation appropriateness.

Table 4.34 The Appropriateness of the Presentation of Unit 3

<b>Item Number</b>	<b>Statement</b>	<b>Score</b>
19	The tasks are sequences from the easiest one to the most difficult one.	4
20	The number of the task is balance among the units.	4
21	The tasks are students-centered.	4
22	The tasks encourage the students to participate actively in the classroom.	4
23	The tasks encourage the students to do oral communication effectively.	4
24	The tasks encourage the students to be creative in the process of learning.	3
25	The tasks encourage the students to be responsible in their own learning process.	4
26	The tasks encourage the students to know their success and lack in the learning and in communicating in English.	4
27	The tasks cover evaluation task in order to measure the students' ability about the materials that they have learned.	3
28	The tasks contain vocabulary related to the topic of the unit.	4
29	The tasks consist of guided activities and free-guided activity	4
30	The unit consists of opening activities.	4
31	The unit consists of main activities.	4
32	The unit consists of closing activities.	4
<b>Mean (<math>\chi</math>)</b>		3.8

Table 4.34 shows that the mean value of the appropriateness of the language of unit 3 is 3.8. It is categorized as "Very Good" due to its position in the interval  $3.75 < x \leq 4$ .

#### d) The Appropriateness of the Layout

Table 4.35 shows the analysis of the presentation appropriateness.

Table 4.35 The Appropriateness of the Layout of Unit 3

Item Number	Statement	Score
33	The design of the materials uses good typography (Unit title, sub-title, page numbers, illustrations, caption and soon)	4
34	The fonts are not too various.	4
35	The fonts are readable.	4
36	The colors used do not disturb the delivery of information.	3
37	The pictures are provided for aesthetic purposes	3
38	The pictures are provided for functional purposes	3
<b>Mean (<math>\bar{x}</math>)</b>		3.5

Table 4.35 shows that the mean value of the appropriateness of the language of unit 3 is 3.5. It is categorized as “Good” due to its position in the interval  $3.5 < x \leq 3.74$ .

Finally, the mean value from all aspects of unit 3 is 3.74. It can be concluded that unit 1 is categorized as “Good” since the position of the mean value is in the interval  $3.5 < x \leq 3.74$ .

#### 2) The Review of Unit 3

From all aspects above, it shows that the developed materials are appropriate. However, there are some parts that still need to be revised. In general, the review of unit 3 has the same aspect of revisions as unit 1 and unit 2.

From all aspects above, it shows that the developed learning materials are appropriate. However, there are some parts that still need to be revised. The

suggestions given by the experts to revise the materials are described in the following:

First of all, in term of content, if it is possible, add some texts talking about the topic. Some questions in the comprehension tasks are just too easy for university students. Therefore, it will be better to change the questions into high-order thinking questions.

In term of language, it is better to be careful in using perfect tense. Check whether the perfect tense that are used in instructions do not cause misunderstanding for example “you have learned” is written “you have been learned”.

For the presentation, there’s no need to do revision. However, in term of lay out, it is better to give more white spaces so the pages in the materials are not too crowded and more pictures to give illustration of the information conveyed.

### 3) The Revision of Unit 3

In order to improve the quality of the developed learning materials, the experts gave some suggestions and recommendations to revise some aspects of the developed learning materials. Table 4.36 in the following describes the point of revisions of unit 1 and the revisions.

Table 4.36 The Revisions of Unit 3

<b>Parts of the Unit</b>	<b>Point to Revise</b>	<b>Revision</b>
Task 1	-	No revision
Task 2	-	No revision
Task 3	-	No revision
Task 4	The word <i>that</i> in the question	The <i>word</i> that was omitted.

	number three needs to be omitted.	
	Revise the questions number 4 to 8 because they are not high-thinking order questions.	The questions were changed.
Task 5	Some of expressions are needed to be added in the explanation, such as explaining visual aids.	The expressions of questions, summarizing a point, introducing and explaining visual aids, highlighting visual aids and inviting questions were added to the explanations.
Task 6	-	No revision.
Task 7	-	No revision.
Task 8	-	No revision
Task 9	Activity related to gerund is better contextualized with the topic of the units and expressions in the unit.	The activity was changed into short conversation in the Q&A section in a presentation in which the speakers in the conversation discussed about solutions in differential equations.
Task 10	The question number 1 is better to be omitted.	The question number 1 was omitted.
Task 11	-	No revision
Task 12	-	No revision
Task 13	It is better to change the word <i>apply</i> with <i>use</i> .	The word <i>apply</i> was changed with <i>use</i> .
Task 14	Omit <i>been</i> in the instruction because it causes different meaning.	The word <i>been</i> was omitted.
	It is better to change the word <i>apply</i> with <i>use</i> .	The word <i>apply</i> was changed with <i>use</i> .
Task 15	-	No revision
Task 16	Omit <i>been</i> in the instruction because it causes different meaning.	The word <i>been</i> was omitted.

## 6. The Final Draft of the Materials

The final draft of the materials had the same outline as the first draft. The final draft was developed based on the suggestions and comments of the first draft of the materials from the expert. The final draft can be seen in the Appendix G.

## **B. Discussion**

As product-based research, this research aims to develop appropriate speaking learning materials for English tutorial program for the intermediate level students of International Mathematics Education Study Program. The result of this research is appropriate speaking learning materials for English tutorial program for the intermediate level students of International Mathematics Education Study Program.

The English tutorial program is an English course which is based on the students' needs and wants. Therefore, the first step before developing the materials was conducting needs analysis. According to Graves (2000:98), needs analysis is a systematic and ongoing process of gathering information about the needs and preferences of students. The needs analysis was conducted in order to figure out the students target needs and learning needs.

Basturkmen (2010) states that needs analysis is the key component of English for Specific Purposes. Therefore, ESP approach is applied in this research. Based on Hutchinson and Water (1987:19), ESP is an approach to language teaching which is based on learner's need. The similar idea is stated by Basturkmen (2010:3) that ESP concerns on analysis of learners' needs.

The needs analysis was conducted by distributing questionnaire to the students. The needs analysis questionnaire consisted a number of questions which aimed to find out the students' target needs and learning needs. Target needs is the needs which is related to the target situation that is demanded or wanted. Target needs consists of three components which are necessities, lacks and wants. Nation

and Macalister (2010:24) define that necessity is something that is necessary for the students' use of language. While, lacks is related to the gap of the students' knowledge between the knowledge that they already have and the knowledge they do not know yet related to target situation. Furthermore, wants, according to Nation and Macalister (2010) refers to what the learners wish to learn.

On the other hand, learning needs is related to what the learners need to do in order to learn (Hutchinson and Waters, 2010). Learning needs commonly contains six elements such as goal, input, procedure, setting, learners' role and teachers' role. Those components are similar to component of a task. Nunan (2004: 40) states that a task has those six elements.

According to Graves (2000: 104), goal is related to the reasons and expectation of the students in the learning. Input, according to Nunan (2004: 41) refers to data that learners work with in completing a task. Procedure is related to what the students should do with the task. Setting is related to the design of the task whether the task should be carry out in group, pairs or individual. Learners' role is related to the role of learners in the classroom. Finally, the teachers' role concerns with the role of teacher during the process of teaching and learning inside the class.

The results of the needs analysis showed the students' goals in joining the English tutorial program. In term of short-term goal, by joining the English tutorial program the students wanted to improve their speaking ability in order to be able to communicate in English in the classroom during the teaching and learning process, while regarding to their long-term goal, the students wanted to

improve their speaking ability because they wanted to continue their study in the post-graduate program and to do job interview. In addition to the goal, the students expected that the English tutorial program could help them in mastering vocabulary related to their study program in order to understand spoken and written texts. Therefore, this research developed the English speaking learning materials for them in terms of academic purposes.

In terms of input, the students wanted to have monologue or dialogue with 200-250 words lengths, so that the input given were in the form of conversations or monologue such as presentation. Moreover, the topics that the students wanted to discuss in the units are integers, quadrilaterals and algebra. Therefore, in the implementation, those topics are used in the units of the developed materials.

Students' preference regarding the learning procedure is summarized as follows. The students preferred to do speaking activities like topic discussion in group, practice dialogue in pairs and games. Therefore in the implementation, the activities are set up in group and pairs.

Instead of the main learning activity for speaking, in the materials the students would be provided with activities which aimed to enrich their vocabulary mastery, grammar and pronunciation. Regarding to the learning activity to study vocabulary, the students preferred to do activities like guessing meaning from the context, complete blank spaces in the paragraph with provided words and/or their own words and identify parts of speech. While in learning grammar, students chose three activities such as identify mistakes in sentences and correct them, create sentences using the learned pattern of grammar, and complete paragraph

with grammatically correct sentences. Finally, in learning pronunciation, the students wanted that particular vocabulary is given pronunciation transcription so that they can practice to pronounce the words correctly.

In term of setting, it was found out that the student preferred to have activity in pair and small group. Therefore, many of the activities were set up in pairs and small group.

Other considerations of learning needs are the role of learners and teachers in the process of learning. The result of the needs analysis in term of learners' role and teachers' role are summarized as follow. In carrying out the activity, the students wanted to play passive role like listening to the tutor's explanations and doing his/her instructions and active role like participating actively in the discussions activity and sharing opinions with their classmates and tutor. Regarding to the teachers' role, the students preferred to have tutor as resource who acted as knowledge and information source who gives them examples before they practice the task, assessor who provided feedback and correction and graded them in various ways and prompter who encouraged them to think creatively by giving clues.

The next step after conducting needs analysis was writing course grids. Course grid is a plan showing what to learn and how to learn in a unit. The course grids of the developed materials in this research contained some elements such as name of the course which was English tutorial program, program of expertise which was Mathematics Education of International Study Program, competence which was communicating in English at intermediate level, unit number, unit title,



topic, indicators, language function, language focus, procedures, and input. Moreover, language focus consisted of two aspects which were vocabulary and grammar.

The further description of the course grids is summarized as follow. The unit number indicated the number of the unit in the developed materials. Unit title contained the title of the unit in the developed materials in which the title represented the language function and the topic in each unit. Indicators contained the learning objectives which are wanted to achieve in each of the unit of the developed materials. Language functions and language focus contained expressions, vocabulary and grammar which were going to learn and discuss in the unit of the materials. The sequence of activities in the units was written in the procedure. Finally, input part contained what kinds of input that were going to use in the activities.

The course grids were then used to develop speaking learning materials. The developed materials consisted three units in which each of them contained different topic, language function and language focus to learn. However, the design of the units has similar pattern. Each unit consisted three main parts which were introduction, main lesson and reinforcement.

The main parts of the units can be described as follows. The introduction part consisted of unit title and learning objectives. The second part of the unit which was main lesson contained the sequence of activities which were divided into three elements: Let's Get Ready, Let's Take Action and Let's Do More. Let's Get Ready served as the pre-task, while Let's Take Action served as practice task

which contained listening task, speaking tasks, language focus tasks and games. The last part of the main lesson was Let's Do More that served as production task. In term of reinforcement, it covered Evaluation, Homework, Let's Make Reflection, Summary and Vocabulary.

As it has mentioned in the previous paragraph that each unit of the developed materials has the same pattern, the brief descriptions of each unit are summarized in the following paragraphs.

Unit 1 of the developed materials entitled "In my opinions, integer is an interesting topic". It contained 15 tasks in which the tasks were divided into three cycles: pre-task, practice-task, and production task. In this unit students were encouraged to learn expressions of asking and giving opinions and adjectives. In the activity the students were required to use them while discussing the topic which was integer.

Unit 2 of the developed materials entitles "We could find articles on quadrilaterals in the library. This unit contained 16 tasks in which the tasks were also divided into three cycles which are pre-task, practice-task, and production task. In this unit, the students were encouraged to learn the expressions of asking and giving suggestions and modal auxiliaries related to asking and giving suggestions. The topic of this unit was quadrilaterals.

Finally, the last unit of the developed materials which was unit 3 entitled "What I'd Like to Present to You Today is Linear Algebra". This unit encouraged students how to present a topic using appropriate expressions for presentation and how to make generalization. In this unit the students also learned about gerund

and use gerund in a presentation and conversations. The topics that were being discussed in this unit are algebra and its-subtopics. In addition, this unit contained 16 tasks in which the tasks are divided into three cycles as well which are pre-task, practice-task, and production task.

After finishing writing the first draft of the materials, the next step was evaluating the materials. Material evaluation was done by distributing materials evaluation or expert judgment questionnaire to the expert. The expert judgment questionnaire was adapted from “*Instrumen Penilaian Coursebook Bahasa Inggris*” from BSNP (2007). The questionnaire covered four aspects which were the appropriateness of the content, language, presentation and layout. The results of the expert judgment were then used to revise the first draft and develop the final draft of the materials.

Based on the research finding regarding to the target needs and learning needs of the students and the result of the expert judgment, the English speaking learning materials developed in this research was considered appropriate to be used for speaking learning materials for English tutorial program for the intermediate level students of International Mathematics Education Study Program.

## **CHAPTER V**

### **CONCLUSIONS AND SUGGESTIONS**

This research has two main aims, the first is to identify the target and learning needs of the students of International Mathematics Education Study Program and the second is to develop appropriate English speaking learning materials for English tutorial program for the students of International Mathematics Education Study Program. This chapter contains the conclusions and suggestions derived from this research.

#### **A. Conclusions**

##### **1. The Target Needs**

In terms of necessities, for now, the students need speaking ability in English in order to be able to do learning activity effectively in the lecturing sessions. While in the future, the students need speaking ability in English because they want to continue their study to post-graduate program and to do job interview. In order to improve their speaking ability in term of academic context, the students want to have activities which require them to use expressions of asking and giving opinions, suggestions, making generalization and expressions for presentations. Based on their preferences, clear pronunciation, a wide range vocabulary mastery, and grammatical accuracy are elements that are considered as important elements in speaking.

In terms of lacks, the English proficiency of the students are considered to be low-intermediate. In addition, most of the students have mastered English vocabulary related to Mathematics more or less 100-500 words.

Lastly, in terms of wants, the students want that the learning process in the English tutorials program will help them to be able to speak English more fluently and accurately.

## **2. The Learning Needs**

In term of materials input, the students want to have monologue or dialogue discussing integers, quadrilaterals, algebra, and triangles with 200-250 words length.

In the materials, the students want to have activities like topic discussion in group and pairs, practicing dialogue in pairs and games for the speaking activities. In term of learning activities for improving their vocabulary mastery, the students want to have activity such as guessing meaning from the contexts, completing blank spaces in the paragraph with the provided words and/or their own words and identify parts of speech. In order to improve their mastery of grammar, the students want to have activities like identifying mistakes in sentences and correcting them, creating sentences using the learned pattern, and completing paragraph with grammatically correct sentences. While in order to improve their mastery of pronunciation, the students prefer to have particular vocabulary with their pronunciation transcription and pronounce the words that have been given

pronunciation transcription. Most the activities are set up in pairs and small group because the students prefer to have learning activities in those kinds of setting.

In carrying out the activities the students want to have two roles. First, they want to listen to the tutor's explanations and do his/her instructions. Second, they want to participate actively in discussion activity, share their ideas and opinions with their classmates and tutor about particular topic. On the other hands, the students prefer that the teacher or tutor acts as recourse, assessor, and prompter in the process of learning.

### **3. The Characteristics of Appropriate English Speaking Learning Materials for English Tutorial Program for the Students of International Mathematics Education Study Program**

Appropriate speaking learning materials have the following components:

#### a. Introduction.

Introduction consists of two elements: unit title and learning objectives.

##### 1) Unit title

Unit title is written based on the topic and language functions that are going to learn in the unit.

##### 2) Learning objectives

The learning objectives can be written explicitly or implicitly. The learning objectives are written based on the learning goals that are wanted to achieve in the unit.

#### b. Main Lesson

Main lesson consists of three elements: let's get ready, let's take action, and let's do more.

1) Let's Get Ready

Let's Get Ready contains warm-up tasks which are used to introduce topic and language function that are going to learn in the unit and to brainstormed the students previous knowledge about the topic and the language functions.

2) Let's Take Action

Let's Take Action contains practice tasks which are divided into guide-task and semi guided task. Those task covers listening task, speaking task and language functions tasks.

3) Let's Do More

Let's Do More contains production task. The task has less scaffolding in which the students are provide with some topics only.

c. Reinforcement

Reinforcement consists of five elements: evaluation, homework, let's make reflections, summary and vocabulary list.

1) Evaluation. Evaluation task is free-guided task which aims to measure the students' ability after learning the unit.

2) Homework. It contains a real-world task which requires students to use language functions they have learned in the class outside the class.

3) Let's Make Reflections. This aims to provide reflection space for the students about themselves by doing self-reflection and peer-assessment.

- 4) Summary. It aims to provide summary about language functions and grammar that the students have learned in the unit.
- 5) Vocabulary list. It is provided in order to give the students review of the vocabulary that they meet in the unit. The vocabulary list covers the English words, parts of speech, pronunciation transcription, and Indonesian equivalent.

## **B. Suggestions**

The suggestions are proposed for the English teacher or tutor and the other materials developers.

### **1. To English Teacher or Tutor.**

Students in some particular majors need to be facilitated appropriately in their learning in accordance to their majors. In order to have effective English learning process, English teacher should provide them with appropriate learning materials which are relevant to their needs. Therefore teacher or tutor should be encouraged to develop materials for their students. There are many things that should be considered before developing materials for the students.

My suggestion for English teacher or tutor, firstly, is that the content of the materials should be relevant to the students' needs, major. In this matter, relevant input is an important element that should be considered in developing materials. The input should contain texts, language function and topic that are going to discuss in the materials.



Secondly, the language of the materials should be appropriate for the students' cognitive development and level proficiency. Therefore, some simplification or adoptions of input are possibly needed in order to adjust the input to suit the students' level of proficiency.

Lastly, the activities in the learning materials should be organized and graded systematically. Teacher can employ the most suitable approach in sequencing the activities in order to achieve the objectives of the learning. Moreover, the layout of the materials should be interesting so that the students will be motivated in their learning.

## **2. To the Other Materials Developers**

In developing materials there are some aspects that should be taken into consideration.

My first suggestion is that materials should be appropriate with the students' needs, major and level of proficiency. The topic and the input of the materials should be relevant for their major and their proficiency level. The learning procedure should lead the students in achieving their goals in their learning. Therefore, observation and needs analysis should be conducted before developing appropriate materials for students in order to identify the students target needs and learning needs as needs analysis is an important element in material development.

Lastly, my suggestion is that in order to develop materials which are relevant to the students, the materials should fulfill four aspects of appropriateness namely

appropriateness of the content, the language, the presentation and lay-out. Therefore, the developed materials need to be evaluated by materials experts in order to determine whether the materials are appropriate or not for the students from the view of those aspects of appropriateness.

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**JURUSAN PENDIDIKAN BAHASA INGGRIS  
FAKULTAS BAHASA DAN SENI  
UNIVERSITAS NEGERI YOGYAKARTA**

*Alamat : Karangmalang, Caturtunggal, Depok, Sleman, Yogyakarta  
55281*

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Kepada

Mahasiswa Program Studi International Pendidikan Matematika

Di Universitas Negeri Yogyakarta

Sehubungan dengan dilaksanakannya penelitian tentang pengembangan materi belajar bahasa Inggris untuk kegiatan *English tutorial program* untuk mahasiswa Program Studi International Pendidikan Matematika, saya mengharapkan kesediaan Anda untuk meluangkan waktu mengisi kuesioner ini.

Kuesioner ini bertujuan untuk mengetahui kebutuhan belajar Bahasa Inggris Anda sebagai pertimbangan dalam mengembangkan materi English tutorial program untuk mahasiswa Program Studi Internasional TANPA bermaksud untuk menguji atau menilai Anda.

Demi tercapainya tujuan dari kuesioner ini, Anda dimohon memilih jawaban dan/atau menuliskan informasi dengan jujur dan sebenar-benarnya sesuai dengan keadaan Anda saat ini. Semua jawaban yang diisikan dalam lembar kuesioner ini benar-benar hanya untuk kepentingan penyusunan materi untuk kegiatan English tutorial program. Jawaban dan identitas Anda akan kami jaga kerahasiaannya sesuai dengan kode etik penelitian.

Terima kasih atas kesediaan Anda meluangkan waktu untuk mengisi kuesioner ini.

Yogyakarta, Oktober 2013

Peneliti,

Mahasiswa Jurusan Pendidikan Bahasa Inggris  
UNY

Titi Nawangsari

NIM. 09202241053

### 1. Data Pribadi Siswa

Isilah data diri Anda sesuai dengan format sebagai berikut.

Nama (*Boleh tidak diisi*) :  
 .....  
 Umur :  
 .....  
 Jenis Kelamin : L / P (*lingkari yang sesuai*)

### 2. Kebutuhan Belajar Siswa

Pilihlah jawaban dengan memberi tanda silang (X) pada huruf a, b, c, d, dan/atau seterusnya pada jawaban yang Anda pilih. Apabila Anda memiliki jawaban yang berbeda dan tidak terdapat dalam pilihan jawaban dalam kuisisioner ini, Anda diperkenankan menuliskan jawaban atau informasi yang sesuai dengan keadaan yang paling menggambarkan diri Anda saat ini. Anda boleh memilih jawaban **lebih dari satu** untuk setiap pertanyaan.

1. Pada saat ini, saya membutuhkan keterampilan *speaking* dalam bahasa Inggris ini adalah untuk...
  - a. Untuk dapat melakukan aktivitas pembelajaran secara efektif dalam perkuliahan.
  - b. Untuk berkomunikasi dengan dosen.
  - c. Untuk berkomunikasi dengan teman.
  - d. Untuk berkomunikasi dengan turis asing.
  - e. Lainnya \_\_\_\_\_
  
2. Pada saat yang akan datang, saya membutuhkan keterampilan *speaking* dalam bahasa Inggris adalah untuk...
  - a. Untuk melanjutkan pendidikan ke program pascasarjan.
  - b. Untuk melanjutkan pendidikan di luar negeri
  - c. Untuk wawancara kerja
  - d. Untuk berkomunikasi dengan rekan kerja
  - e. Untuk keperluan pekerjaan seperti presentasi, dll.
  - f. Lainnya \_\_\_\_\_
  
3. Menurut saya, ungkapan-ungkapan (*language functions*) yang saya butuhkan untuk meningkatkan ketrampilan *speaking* dalam konteks akademik yaitu....
  - a. Menanyakan pendapat seseorang (*asking for someone's opinion*)
  - b. Menyampaikan pendapat (*saying you have opinion*)
  - c. Menanyakan keterangan (*asking for explanation*)
  - d. Memberikan keterangan (*giving explanation*)
  - e. Menyatakan Anda setuju (*agreeing*)
  - f. Menyatakan Anda tidak setuju (*disagreeing*)
  - g. Mendeskripsikan konsep (*describing concepts*)
  - h. Menyampaikan saran (*suggesting*)
  - i. Membantah (*arguing*)

- j. Membuat kesimpulan (*making generalizations*)
  - k. Lainnya \_\_\_\_\_
- 

4. Menurut saya, element yang paling penting dalam *speaking* adalah...
  - a. Kelancaran (*fluency*).
  - b. Pengucapan yang jelas (*clear pronunciation*) .
  - c. Pengetahuan kosakata yang luas (*a wide range of vocabulary*).
  - d. Penggunaan tatabahasa yang tepat (*grammatical accuracy*).
  - e. Kepercayaan diri (*confidence*).
  - f. Lainnya \_\_\_\_\_
  
5. Selama ini, kemampuan bahasa Inggris saya secara umum adalah...
  - a. Saya sama sekali tidak bisa berkomunikasi secara lisan dalam bahasa Inggris.
  - b. Saya sedikit mengalami kesulitan memahami orang berbicara dalam bahasa Inggris dalam berbagai situasi dengan menggunakan berbagai topik.
  - c. Saya dapat berbicara dalam bahasa Inggris dalam situasi dan topik yang saya kuasai walaupun masih membuat banyak kesalahan.
  - d. Saya bisa berbicara dalam bahasa Inggris dalam berbagai situasi dengan menggunakan berbagai topik walaupun masih membuat kesalahan.
  - e. Saya bisa menanggapi/merespon berbicara dalam bahasa Inggris ketika orang lain berbicara dengan saya dalam bahasa Inggris.
  - f. Saya bisa memahami orang berbicara dalam bahasa Inggris dalam berbagai situasi dengan berbagai topik dengan baik, lancar, dan berterima.
  
6. Dalam berkomunikasi lisan dalam Bahasa Inggris, saya sering mengalami kesulitan ketika.....
  - a. Menemukan kosakata yang tepat pada kalimat yang akan saya ucapkan.
  - b. Mengekspresikan ungkapan-ungkapan tertentu.
  - c. Mengucapkan kosa kata dengan pengucapan yang tepat.
  - d. Menghafalkan rumus seperti pada *tenses*.
  - e. Menerapkan tata bahasa seperti *tenses* dalam kalimat yang akan saya ucapkan.
  - f. Memahami istilah-istilah tertentu terutama istilah-istilah dalam matematika.
  - g. Lainnya \_\_\_\_\_
  
7. Jumlah kosa kata bahasa Inggris dalam dunia Matematika yang sudah saya mengerti adalah...
  - a. < 100 kosa kata.
  - b. 100-500 kosa kata.
  - c. 500 – 1000 kosa kata.
  - d. > 1000 kosa kata.



8. Secara umum, saya menginginkan pembelajaran bahasa Inggris pada kegiatan *English tutorial* program yang menjadikan saya....
- Mampu berkomunikasi dalam bahasa Inggris dengan lebih lancar.
  - Mampu berkomunikasi dalam bahasa Inggris dengan grammar yang tepat.
  - Mampu bahan ajar dalam perkuliahan dengan lebih baik.
  - Lainnya \_\_\_\_\_
9. Tujuan saya mengikuti kegiatan *English tutorial program* dalam konteks akademik yaitu.....
- Untuk menjadikan saya mampu menguasai kosakata bahasa Inggris yang berkaitan dengan program studi saya untuk bisa memahami teks lisan dan tertulis.
  - Untuk menjadikan saya mampu menguasai kosakata bahasa Inggris yang berkaitan dengan program studi saya dan menggunakannya untuk berkomunikasi secara lisan.
  - Untuk menjadikan saya mampu menguasai penggunaan tatabahasa dengan baik dan berterima baik secara lisan untuk berkomunikasi dengan dosen dan teman selama proses perkuliahan.
  - Untuk menjadikan saya mampu menggunakan dan merespon ungkapan (ekspresi) yang banyak digunakan dalam konteks akademik dengan baik dan berterima.
  - Lainnya \_\_\_\_\_
10. Topik yang ingin saya cakup dalam materi bahasa Inggris untuk kegiatan *English tutorial program* dalam konteks akademik yaitu....(Pilih dan/atau 3 topik)
- Bilangan bulat (*Integers*)
  - Pecahan (*Fraction*)
  - Notasi bilangan (*Notation*)
  - Persamaan (*linear Linear equation*)
  - Himpunan (*Set and number of a set*)
  - Quadrilateral
  - Garis dan sudut (*Lines and Angles*)
  - Segitiga (*Triangles*)
  - Lingkaran (*Circles*)
  - Aljabar (*Algebra*)
  - Dalil Pitagoras (*Pythagorean theorem*)
  - Lainnya \_\_\_\_\_
11. Input pembelajaran pada materi bahasa Inggris untuk kegiatan *English tutorial program* yang saya inginkan berupa....
- Model monolog/dialog
  - Model monolg atau dilog singkat yang dipraktakan dalam kelas
  - Materi otentik yang dijumpai dalam keharian (seperti berita, film, lagu, dll)
  - Lainnya \_\_\_\_\_

12. Panjang input pembelajaran pada materi bahasa Inggris untuk kegiatan *English tutorial program* yang saya inginkan berjumlah....
- 150- 200 kata
  - 200-250 kata
  - 250-300 kata
  - > 300 kata
13. Kegiatan belajar yang saya inginkan dalam *English tutorial program* untuk meningkatkan keterampilan *speaking* Anda dalam konteks akademik adalah.....
- Mendiskusikan topik tertentu secara berpasangan (*topic discussionin in pairs*)
  - Mendiskusikan topik tertentu secara berkelompok (*topic discussionin in group*)
  - Presentasi (*presentation*)
  - Mempraktekan dialog secara berpasangan.
  - Bermain peran (*role play*)
  - Bermain games
  - Lainnya \_\_\_\_\_
14. Dalam mempelajari kosakata bahasa Inggris (*vocabulary*), dalam kegiatan belajar mengajar pada kegiatan *English tutorial program* saya lebih suka jika.....
- Mengartikan kata berdasarkan konteks
  - Melengkapi paragraf dengan kata-kata yang disediakan
  - Melengkapi paragraf dengan kata-kata sendiri
  - Mengidentifikasi kata-kata dalam teks
  - Lainnya- \_\_\_\_\_
15. Dalam mempelajari tata bahasa Inggris (*grammar*), dalam kegiatan belajar mengajar pada kegiatan *English tutorial program* saya lebih suka jika.....
- Mengidentifikasi dan membenarkan kesalahan pada struktur kalimat
  - Menuliskan atau kalimat berdasarkan pola yang dipelajari
  - Melengkapi paragraf dengan bentuk tata bahasa yang tepat
  - Lainnya- \_\_\_\_\_
16. Dalam mempelajari pengucapan kata dalam bahasa Inggris (*pronunciation*), dalam kegiatan belajar mengajar pada kegiatan *English tutorial program* saya lebih suka jika....
- Menirukan ucapan tutor dengan keras
  - Diberikan *phonetic transcription* pada kata- kata tertentu.
  - Berlatih mengucapkan kata-kata yang diberi *phonetic transcription*.
  - Lainnya \_\_\_\_\_

17. Dalam process pembelajaran berbicara (*speaking*) aktifitas yang diberikan sebaiknya dilakukan secara....
- Individu
  - Berpasangan (2 orang)
  - Group kecil (anggota 3-4 orang)
  - Group besar (anggota 5 orang atau lebih)
  - Lain-lain-

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18. Peran Anda ketika melakukan aktivitas *speaking* dalam kegiatan *English tutorial program* sebaiknya....
- Mendengarkan penjelasan tutor dan mencatatnya
  - Mendengarkan penjelasan tutor dan melaksanakan instruksi yang diberikan tutor
  - Berpartisipasi aktif dalam diskusi dan tukar pendapat dengan guru dan siswa lainnya mengenai masalah/topik tertentu.
  - Berlatih sendiri dalam suasana kelas yang tenang
  - Lainnya

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19. Peran tutor yang baik dalam mendampingi Anda melakukan aktivitas *speaking* dalam kegiatan *English tutorial program* sebaiknya....
- Tutor sebagai sumber informasi dan memberikan contoh sebelum meminta Anda berlatih (*resource*).
  - Tutor mengorganisir Anda untuk melakukan berbagai aktivitas (*organizer*).
  - Tutor mendorong Anda untuk berfikir secara kreatif dengan memberikan kata kunci (*prompter*)
  - Tutor mengamati aktivitas Anda didalam kelas dan memberikan *feedback* secara individu atau berkelompok (*observer*).
  - Tutor mengontrol seluruh aktifitas Anda di dalam kelas (*controller*).
  - Tutor memberikan *feedback* dan koreksi terhadap kesalahan Anda (*assessor*).
  - Lainnya

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Terimakasih

**DATA TABULATION OF THE NEEDS ANALYSIS**

Item No	Aspects	Question	Answer	N	f	Percentage (%)
<b>A. Target Needs</b>						
<b>1</b>	<b>1. Necessities</b>	Right now, I need speaking skill in English in order.....	a. to be able to do learning activity effectively in the lecturing sessions.	12	11	91.7
			b. to be able to communicate with lecturers	12	6	50
			c. to be able to communicate with friends	12	8	66.7
			d. to be able to communicate with foreign tourists	12	5	41.7
			e. others	12	2	16.7
<b>2</b>		In the future, I need speaking skill in English in order to.....	a. to continue study to post-graduate.	12	11	91.7
			b. to study abroad.	12	10	83.3
			c. to do job interview.	12	11	91.7
			d. to communicate with colleague.	12	9	75
			e. to do job such as do presentation.	12	10	83.3
			f. others.....	12	0	0
<b>3</b>		In my opinions, language functions or expressions that I will occasionally need in order to improve my speaking skill in terms of academic context is/are.....	a. asking for someone's opinions.	12	11	91.7
			b. saying you have opinions	12	10	83.3
			c. asking for explanations	12	6	50
			d. giving explanations	12	9	75
			e. agreeing	12	9	75
			f. disagreeing	12	10	83.3
			g. describing concepts	12	10	83.3

			h. suggesting	12	11	91.7
			i. arguing	12	6	50
			j. making generalizations	12	11	91.7
			k. others	0	0	0
4		In my opinion, the important element/s in speaking is/are...	a. fluency	12	9	75
			b. clear pronunciation	12	10	83.3
			c. a wide range of vocabulary	12	10	83.3
			d. grammatical accuracy	12	10	83.3
			e. confidence	12	9	75
			f. others	12	0	0
5	2. Lacks	In general, my English proficiency is...	a. I cannot communicate orally in English	12	0	0
			b. I find it a little bit difficult to understand when somebody talks to me in English and using various topics.	12	3	25
			c. I can speak in English and use topics that I have known but make many mistakes.	12	5	41.7
			d. I can speak in English in various situations and topics but I still make mistakes.	12	4	33.3
			e. I can respond in English when somebody talks to me in English.	12	4	33.3
			f. I have no problems in understanding what people say in English in various to topics	12	1	8.3

6		In communicating orally in English, I find it difficult when I have to.....	a. find appropriate words for the sentences that I am going to say.	12	7	58.3
			b. express particular expressions or language functions.	12	6	50
			c. pronounce the words correctly.	12	4	33.3
			d. memorize formulas such as tenses.	12	4	33.3
			e. apply grammar to the sentences that I am going to say.	12	8	66.7
			f. understand particular terms in Mathematics.	12	7	58.3
			g. others....	12	0	0
7		The number of English vocabulary related to Mathematics that I have mastered are...	a. <100 words		2	16.7
			b. 100-500 words.	12	9	75
			c. 500-100 words	12	0	0
			d. >1000 words	12	1	8.3
8	3. Wants	In general, I want that the learning process in the English tutorial program will help me....	a. to be able to speak English more fluently.	12	10	83.3
			b. to be able to speak English accurately.	12	10	83.3
			c. to be able to understand the lectures' handouts better.	12	7	58.3
			d. others....	12	0	0
<b>B. Learning Needs</b>						
9	Goal	My goal in participating in the English tutorial program in terms of academic context is/are....	a. to help me to be able to master vocabulary related to my study program, in order to understand spoken and written texts.	12	10	83.3

			b. to help me to be able to master vocabulary related to my study program and use them in oral communication	12	9	75
			c. to help me to be able to master grammar and apply them in oral communication with friends and lecturers inside the classroom.	12	5	41.7
			d. to help me to be able to respond somebody using appropriate expressions or language functions.	12	7	58.3
			e. others...	12	0	0
<b>10</b>	<b>Input</b>	The topics that I want to cover in the English materials for the English tutorial program in term of academic context are....	a. integers.	12	7	58.3
			b. fraction.	12	5	41.7
			c. notation.	12	6	50
			d. linear equation.	12	6	50
			e. set and number of a set.	12	6	50
			f. quadrilaterals.	12	7	58.3
			g. line and angles.	12	4	33.3
			h. triangles.	12	7	58.3
			i. circles.	12	6	50
			j. algebra.	12	7	58.3
			k. Pythagorean Theorem.	12	3	25
			l. others...	12	2	16.7
<b>11</b>		Learning inputs in the English materials for English tutorial program activities that I want are in the form of.....	a. monologue/dialogue.	12	10	83.3
			b. short monologue/dialogue that is/are performed in front of class	12	9	75
			c. authentic materials such as news, movie	12	5	41.7

			clips, song, etc.			
			d. others...	12	0	0
<b>12</b>		The type of inputs that I am suppose to have contains...	a. 150-200 words.	12	3	25
			b. 200-250 words	12	7	58.3
			c. 250-300 words	12	2	16.7
			d. > 300 words	12	0	0
<b>13</b>	<b>Procedure</b>	Learning activity that I want to have in the process of learning in the English tutorial program in order to improve my speaking ability in term of academic context is/are....	a. topic discussion in pairs.	12	8	66.7
			b. topic discussion in group.	12	9	75
			c. presentation.	12	8	66.7
			d. practice dialog in pairs.	12	9	75
			e. role play	12	7	58.3
			f. games	12	9	75
			g. others...	12	0	0
<b>14</b>		In learning English vocabulary in the process of learning in the English tutorial program, types of activity that I like is/are....	a. guessing the meaning from the contexts.	12	8	66.7
			b. completing blank spaces in the paragraph with provided words.	12	6	50
			c. completing blank spaces in the paragraph with your own words.	12	6	50
			d. identifying parts of speech.	12	6	50
			e. others...	12	2	16.7
<b>15</b>		In learning grammar in the process of learning in the English tutorial program, type of activity that I like is/are....	a. identifying mistakes in sentences and correct them.	12	8	66.7
			b. creating sentences using the learned pattern of grammar.	12	8	66.7
			c. completing paragraph with grammatically correct sentences.	12	8	66.7
			d. others....	12	0	0
<b>16.</b>		In learning	a. repeating the	12	4	33.3



		pronunciation in the process of learning in the English tutorial program, types of activity that I like is/are...	speaker/tutor's pronunciation loudly.			
			b. given pronunciation on the particular vocabulary.	12	11	91.7
			c. pronouncing the words that have been given pronunciation transcription.	12	6	50
			d. others...	12	0	0
<b>17.</b>	<b>Setting</b>	In learning speaking, it is better to do the activities in...	a. individual.	12	6	50
			b. pairs.	12	9	75
			c. small group.	12	8	66.7
			d. big group.	12	6	50
			e. others	12	0	0
<b>18</b>	<b>Learners' role</b>	When I learn speaking, it will be better if I...	a. listen to the tutor explanation and take a note.	12	6	50
			b. listen to the tutor's explanation and do his/her instructions.	12	8	66.7
			c. participate actively in the discussion activity and share opinion with the tutor and classmates about particular topic.	12	7	58.3
			d. learn individually in a quiet classroom.	12	4	33.3
			e. others...	12	0	0
<b>19</b>	<b>Teachers' role</b>	In the process of learning, I want tutor acts as....	a. resource (the tutor acts as knowledge and information source who gives you examples before you practice the task)	12	11	91.7

			b. organizer (tutor organizes you to do various activities)	12	7	58.3
			c. prompter (tutor encourages you to think creatively by giving clues)	12	9	75
			d. observer (tutor observes what you do and give individual or group feedback)	12	7	58.3
			e. controller (tutor takes in charge of the class and of the activity).	12	6	50
			f. assessor (tutor offer feedback and correction and grades you in various ways).	12	11	91.7
			g. others...	12	1	8.3

## COURSE GRID UNIT 1

Name of the Course : English Tutorial Program  
 Program of Expertise : International Mathematics Education Study Program  
 Semester : IV  
 Competence : Communicating in English at Intermediate Level

Unit	Unit Title	Topic	Indicators	Language Function	Language Focus		Procedure	Input
					Vocabulary	Grammar		
1	In my opinion, integer is an interesting topic.	Integers	<ul style="list-style-type: none"> <li>- Students are able to identify expressions of asking and giving opinions.</li> <li>- Students are able to identify the level of formality of the expressions of asking and giving opinions in a dialogue.</li> <li>- Students are able to use expressions of asking and giving opinions in conversations.</li> <li>- Students are</li> </ul>	<p><b>Asking for opinions:</b></p> <ul style="list-style-type: none"> <li>- What do you think.....?</li> <li>- What is your opinion....?</li> <li>- What about?</li> </ul> <p><b>Giving Opinions:</b></p> <ul style="list-style-type: none"> <li>- In my opinion....</li> <li>- I believe....</li> <li>- I think.....</li> <li>- etc</li> </ul>	<p><b>Specific terms related to integers:</b></p> <ul style="list-style-type: none"> <li>- add</li> <li>- subtract</li> <li>- multiply</li> <li>- divide</li> <li>- set of number</li> <li>- number line</li> <li>- positive</li> <li>- negative</li> </ul> <p><b>Adjective:</b></p> <ul style="list-style-type: none"> <li>- difficult</li> <li>- complicated</li> <li>- easy</li> <li>- interesting</li> <li>- etc</li> </ul>	<p><b>Adjective:</b></p> <ul style="list-style-type: none"> <li>- Position of adjectives</li> <li>- Formation of adjectives (adjective with suffixes, prefixes, and compound adjective of measurement)</li> </ul>	<p><b>Let's get started:</b></p> <ul style="list-style-type: none"> <li>- Studying a picture and answering some questions.</li> <li>- Brainstorming of integers using mind map.</li> </ul> <p><b>Let's take action:</b></p> <ul style="list-style-type: none"> <li>- Studying vocabulary existed in the dialogue used for next task and complete the table (pair work).</li> <li>- Listening to a conversation containing some expressions of asking and giving opinions and answering some questions based on</li> </ul>	<ul style="list-style-type: none"> <li>- Conversations talking about integers containing expression of asking and giving opinions.</li> <li>- Pictures</li> <li>- Explanations</li> <li>- Cards</li> </ul>

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able to use particular terms in integers in conversations.

- Students are able to recognize the formation and position of adjectives and apply them in sentences.

the conversation.

- Studying the expressions of asking and giving opinions (pair work).
  - Studying a conversation containing expressions of asking and giving opinions and identifying the expressions existed in the dialogue and the level of formality then acting out the conversation (Pair work).
  - Completing blank spaces in a conversation using words in the boxes and acting out the conversation.
  - Playing survey game
-

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Interviewing five friends to find out their opinions about integers and their reasons of having the opinions and then sharing the result of interview in front of the class orally.

- Completing two conversations with some expressions of asking and giving opinions learned before and identifying the relationship between the speakers and the level of formality of the conversation and then acting them out with their partners.
- Studying explanations of adjectives.

- 
- Working in pairs discussing correct adjectival forms in order to restate the sentences and then sharing their discussions results with their friends.
  - Playing a game Finding out people's opinions of other people according to the cards given to students.

**Let's Do More:**

- Doing role play using expressions of asking and giving opinions about integers based on the chosen situation.

**Let's Do evaluation:**

- Using subtopics which have been brainstormed in the previous task, acting out conversation
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containing  
expressions of  
asking and giving  
opinions about one  
of the subtopics  
without using texts.

**Homework**

Interviewing three  
friends in the same  
department to find  
out their opinions  
about the  
advantages and  
disadvantages of  
studying integers  
and reporting the  
results of interview  
in the class.

## COURSE GRID UNIT 2

Name of the Course : English Tutorial Program  
 Program of Expertise : International Mathematics Education Study Program  
 Semester : IV  
 Competence : Communicating in English at Intermediate Level

Unit	Unit Title	Topic	Indicators	Language Function	Language Focus		Procedure	Input
					Vocabulary	Grammar		
2	We could find articles on quadrilaterals in the library.	Quadrilaterals	<ul style="list-style-type: none"> <li>- Students are able to identify expressions of asking and giving suggestions in conversations.</li> <li>- Students are able to identify the level of formality of conversations containing expressions of asking and giving suggestions.</li> <li>- Students are able to apply expressions of asking and giving suggestions in conversations.</li> <li>- Students are able</li> </ul>	<p><b>Asking for suggestions:</b></p> <ul style="list-style-type: none"> <li>- Could you suggest me.....?</li> <li>- Do you have any suggestions for me?</li> <li>- Can you tell me what should I do?</li> </ul> <p><b>Giving suggestions:</b></p> <ul style="list-style-type: none"> <li>- Let's....</li> <li>- What about....</li> <li>- I'd like to suggest.....</li> <li>- etc</li> </ul>	<p><b>Specific terms related to quadrilaterals:</b></p> <ul style="list-style-type: none"> <li>- parallel</li> <li>- properties</li> <li>- line</li> <li>- angle</li> <li>- rhombus</li> <li>- trapezoid</li> <li>- kite</li> <li>- etc.</li> </ul> <p><b>Modal:</b></p> <ul style="list-style-type: none"> <li>- may</li> <li>- can</li> <li>- could</li> <li>- shall</li> <li>- should</li> <li>- etc</li> </ul>	<p><b>Modal:</b></p> <ul style="list-style-type: none"> <li>- Modal in giving and asking for suggestions</li> </ul>	<p><b>Let's get started:</b></p> <ul style="list-style-type: none"> <li>- Studying a picture and answering some questions.</li> <li>- Brainstorming of integers using mind map.</li> </ul> <p><b>Let's take action:</b></p> <ul style="list-style-type: none"> <li>- Studying vocabulary existed in the conversation used for next task and completing the table. (pair work).</li> <li>- Listening to a conversation containing some expressions of asking and giving suggestions and telling the main</li> </ul>	<ul style="list-style-type: none"> <li>- Conversations talking about quadrilaterals containing expressions of asking and giving suggestions.</li> <li>- Pictures</li> <li>- Situation cards.</li> </ul>



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to use particular terms in quadrilaterals in conversations.

- Students are able to recognize the use of modals and apply them in conversation of asking and giving suggestions.

point of the conversation based on the guide on the table.

- Studying the expressions of asking for suggestions (pair work).
- Identifying the level of formality of two conversations, completing blank spaces in the conversations using words in the boxes and acting out the conversations in pairs.
- Playing information-gap game.  
Finding a friend who has the same card containing the answer of your card and asking him/her suggestions how to solve the question based on the answer

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of the question  
written on the card.

- Studying the explanation of modal auxiliaries and the use of them.
  - Working in pairs analyzing modal auxiliaries used by the speaker and sharing the results of analysis in the class orally.
  - Studying a conversation between two people talking about quadrilaterals and answering some questions based on the conversation.
  - Studying the expressions of giving suggestions (pair work).
  - Identifying the relationship between
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the speakers and the level of formality of the conversations talking about quadrilaterals and completing the conversations with their own words and/or some expressions of asking and giving suggestions learned before and then acting them out with their partners.

- Playing a survey game.  
Interviewing friends and asking for their suggestions of the materials recommended by your lecturer and making decision which material that will be chosen by you then sharing it with your friends.  
(group work)

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**Let's Do More:**

- Doing role play using expressions of asking and giving suggestions about quadrilaterals based on the chosen situation.

**Let's Do evaluation:**

- Doing role play using the expressions of asking and giving suggestions and one of the subtopics that have been brainstormed in the Task 2.

- **Homework**

Asking for suggestions of how to learn quadrilaterals easily through interviewing three friends in the same department and reporting the results of interview in the class.



### COURSE GRID UNIT 3

Name of the Course : English Tutorial Program  
 Program of Expertise : International Mathematics Education Study Program  
 Semester : IV  
 Competence : Communicating in English at Intermediate Level

Unit	Unit Title	Topic	Indicators	Language Function	Language Focus		Procedure	Input
					Vocabulary	Grammar		
3	What I'd Like to Present to You Today is Linear Algebra	Algebra	<ul style="list-style-type: none"> <li>- Students are able to identify parts of presentation and the expressions used in each of the parts.</li> <li>- Students are able to apply the expressions of making generalizations in conversations.</li> <li>- Students are able to apply gerund in the simple conversations.</li> <li>- Students are able to apply the useful</li> </ul>	<b>Making generalizations:</b> all, none, most, many, always, everyone, never, sometimes, some, usually, seldom, few, generally, in general, overall and soon.	<b>Specific terms related to algebra:</b> - real number - fraction - factor - denominator - equation - binomial - Etc.	<b>Gerund:</b> The use of gerund.	<b>Let's get started:</b> <ul style="list-style-type: none"> <li>- Studying picture of students doing presentation and answering some questions based on the picture.</li> <li>- Completing boxes with things (subtopics) related to algebra</li> </ul> <b>Let's take action:</b> <ul style="list-style-type: none"> <li>- Studying vocabulary (noun) existed in the conversation used for the next task and complete a table (pair work).</li> <li>- Listening to a monologue of a student presenting</li> </ul>	<ul style="list-style-type: none"> <li>- Monologue</li> <li>- Conversations</li> <li>- Presentation scripts</li> <li>- Pictures</li> <li>- Explanations</li> </ul>

---

expressions for  
presentation in a  
presentation.

about algebra and  
answering the  
questions.

- Studying the useful  
expressions for  
presentation.
- Completing blank  
spaces in a  
monologue using  
the expressions that  
have been learned in  
the previous task  
and act out the  
monologue.
- Studying some  
sentences and  
answering some  
questions.
- Studying the  
explanation of  
gerund.
- Identifying mistakes  
in short  
conversations and  
correcting the words  
and then identifying  
the positions of

---

gerunds in the corrected sentences then practicing the dialogue (gerund application)

- Studying some statements and answering questions based on the statements
- Studying useful expressions for making generalizations.
- Creating generalizations based on the given facts or situations orally.
- Working in a group of three and doing a presentation based on the material given.

**Let's Do More:**

- Doing individual presentation in front
-



---

of the class using one of the topics which have been provided.

**Let's Do evaluation:**

- Working in a group of three or four. Each of the members should do a presentation in front of the class and the other members should evaluate the presentation using the provided criteria. The result of the evaluation should be shared in front of the class.
- **Homework**  
Doing a survey to the five friends who do not join the English speaking club to find out how they do presentation and asking them whether they do presentation in the classroom using the

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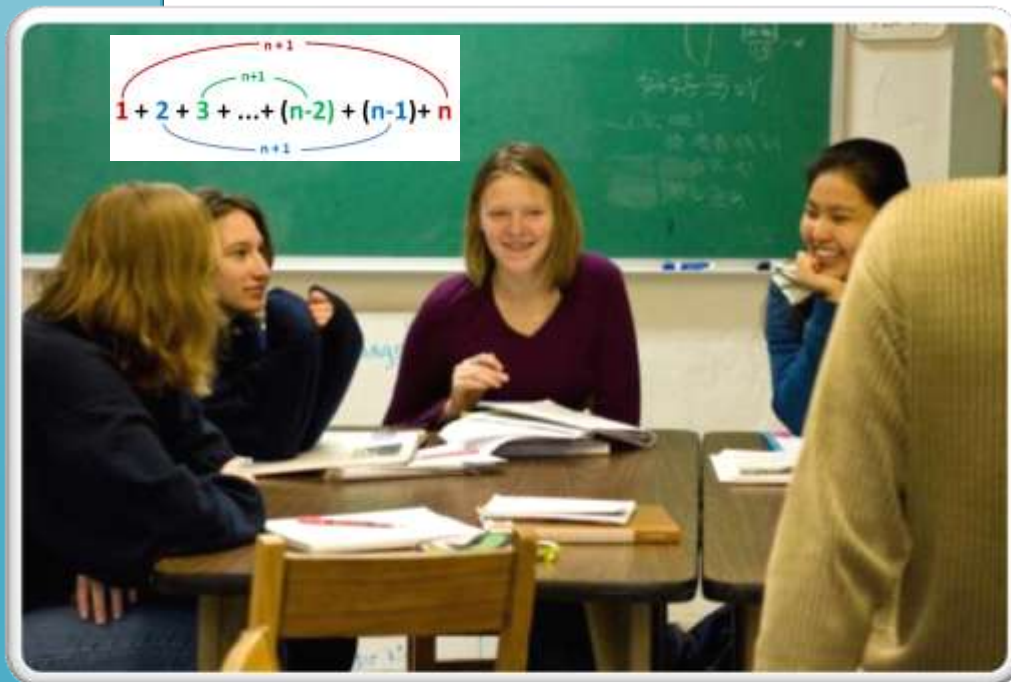
expressions learned  
in the previous  
chapters or not.  
And then report the  
results of interview  
in the class.

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## UNIT

# 1

## In My Opinion, Integer Is an Interesting Topic.

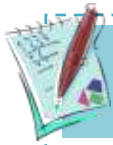


Picture 1.1

As students of Mathematics Education study program, you must have been familiar with integers. When you hear the word “integer”, what comes to your mind? What do you think about integer?

In this unit, you will learn some expressions used to ask and give opinions about integers. You will also use the expressions in the communication activities.

**A** Let's Get Started



**Task 1**  
Study the following picture and answer the questions.



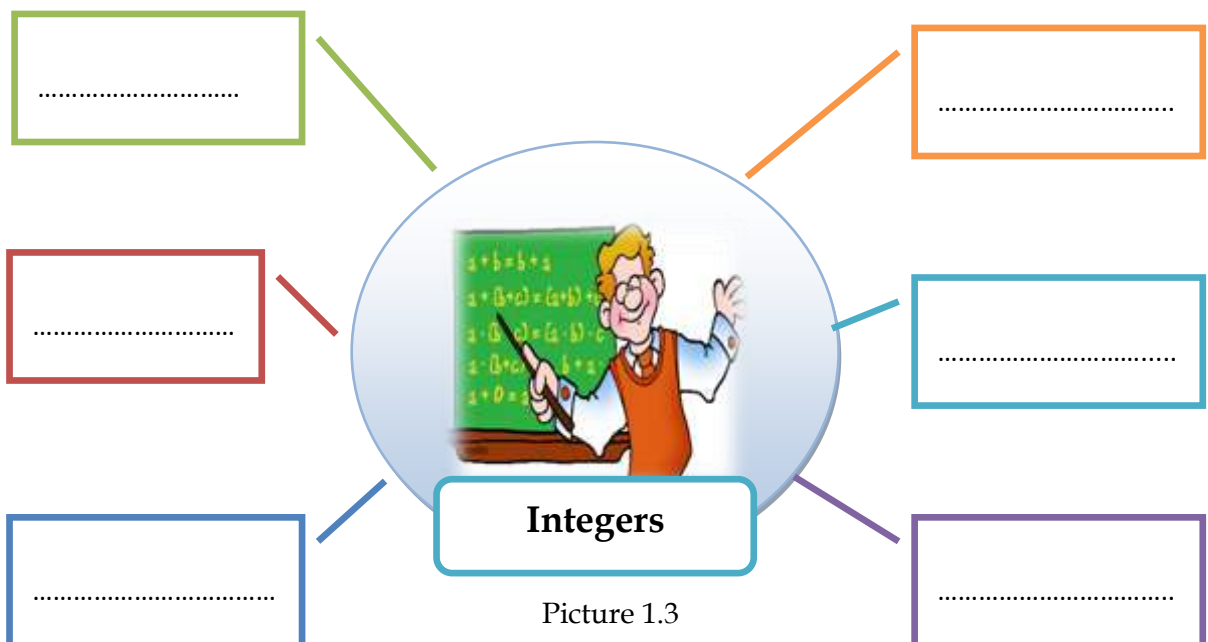
Picture 1.2

In an activity discussing integer, you find it difficult to solve some problems of integer. You want to ask your friend's opinions of how to solve the problems.

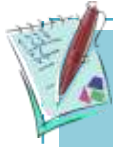
- What will you say to her/him?
- Can you say it using the expression of asking for opinions?
- Can your friend answer your questions using expression of giving opinions?
- If you are able to ask your friend using such expressions, which expression do you think is the most appropriate to be used?



**Task 2**  
Below is a mind map of integers. Think about integers and write the things that you usually learn in integers on the chart.

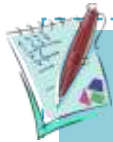


Picture 1.3

**B****Let's Take Action****Task 3**

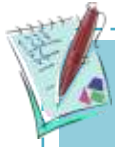
Below are some adjectives and adverbs that you are going to find in Task 4. Complete the table below and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation
1	abundant	adjective	berlebihi	/ə' bʌn.d ə nt/
2	afraid	.....	.....	.....
3	abundant	.....	.....	.....
4	below	.....	.....	.....
5	clear	.....	.....	.....
6	complicated	.....	.....	.....
7	exaggerate	.....	.....	.....
8	physical	.....	.....	.....
9	quite	.....	.....	.....
10	simpler	.....	.....	.....

**Task 4**

You will listen to a conversation containing some expressions of asking and giving opinions about something. Listen carefully and take notes for important information, then answer the following questions according to the conversation.

1. What is being discussed by the speakers?
2. What are their opinions toward the topic?
3. Where did Colby's materials come from?
4. What do they think about the professor?
5. What is the definition of the topic given by the speaker? Use your own words.
6. What can the topic be applied to?
7. What are subtopics that they are going to learn related to the topic?
8. When will they learn the topic in the class?
9. Is there any expression of asking opinions in the conversation? (If any, mention it/them).
10. Is there any expression of giving opinions in the conversation? (If any, mention it/them)



### Task 5

Study the following explanation with your partner.



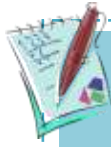
## Language Functions: Asking and Giving Opinions

There are some expressions that can be used in asking and giving opinions. You may need different expressions for different situations. Furthermore, you need to consider the level of formality of the expressions that you are going to use.

Below are explanations of the expressions that you need to ask and give opinions and in what situation you can use the expressions.

Situations	Expressions		Level of formality
	Asking for Opinions	Giving Opinions	
You are having a chat in a canteen with your friends about today's math lecture.	<ul style="list-style-type: none"> <li>- What about....?</li> <li>- How do you see...?</li> <li>- What do you reckon...</li> </ul>	<ul style="list-style-type: none"> <li>- I think....</li> <li>- I'd say....</li> <li>- Well, to my mind,...</li> <li>- I reckon.....</li> </ul>	<b>Less formal</b>
You are at the theatre and you are having conversations with someone who happens to be sitting next to you.	<ul style="list-style-type: none"> <li>- What do you feel about....?</li> <li>- What do you think of/about...?</li> <li>- What is your opinion/view about...?</li> </ul>	<ul style="list-style-type: none"> <li>- In my opinion/view...</li> <li>- I believe/feel...</li> <li>- From my point of view.....</li> </ul>	
You are attending a national mathematical conference and you are talking to another delegate.	<ul style="list-style-type: none"> <li>- Do you have any opinion on...?</li> <li>- What would you say to....?</li> <li>- I'd be glad/grateful to have your view/opinion on....?</li> </ul>	<ul style="list-style-type: none"> <li>- I consider.....</li> <li>- I hold the view/opinions</li> <li>- It's my considered opinion that....</li> </ul>	<b>More formal</b>

*Adapted from Function in English (1982)*



### Task 6

Study the following dialogue in pairs and identify the expressions of asking and giving opinions and the level of formality then practise the dialogue with your partner.

Rani and Paulina are having dialogue about their math class today. They are having dialogue in a small garden somewhere in their campus.

Rani : Did you enjoy the math lecture?

Paulina : The professor droned on and on about dividing and multiplying integers.

Rani : But he's quite funny right?

Paulina : Yeah, but it's like taking all day long to discuss them.

Rani : Well, I think he wanted us to understand it well before moving to the next topic. You see it right? Many of us haven't understood the materials yet?

Paulina : Is it really difficult topic?

Rani : I believe that for some people it is difficult. Have you solved all the problems given?

Paulina : Yeah.

Rani : Actually, I still don't get it how to add and subtract integers.

Paulina : Why are they so hard for you?

Rani : I don't know. Have a look at this.

$$-5+(-9)=\dots\dots\dots$$

$$-5+9=\dots\dots\dots$$

What do you think of this question?

Paulina : Well, I must say, it's very easy. If you find it difficult, what you need to do is focus on the sign whether it is positive or negative. If both of the numbers are negative or positive, you just need to jump them together. You got (-5) and (-9), so all together, you got (-14).

Rani : Okay. But I usually have problems with the sign.

Paulina : What about using the number line? It will help you think about how negative and positive numbers work when they are together.

Rani : I'd say you're brilliant.

Paulina : Don't be exaggerating. It's just a common thing. Think of positive numbers as moving to the right on the number line and negative number as moving to the left on the number line.

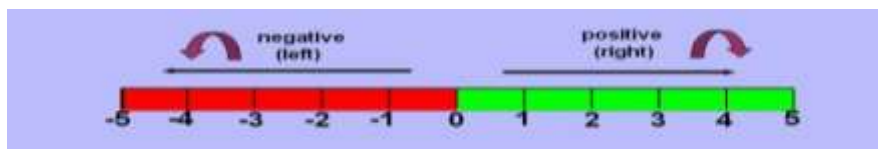
Rani : Oh, I see.

Paulina : Remember that every negative cancels out one positive, so for the second question, 5 negatives cancel out 5 positives and that will leave 4 positives hanging out.

Rani : That's right. I get it.

Paulina : Now, how do you feel about integer? Is it really difficult topic?

Rani : Well, to my mind, it's quite easy after you help me. Thank you.



Picture 1.4

# For Your Information

## Mathematical Symbol in Integers

Integers consist of negative number, zero and positive number. The set of integer is usually shown like this:

$$\{\dots -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, \dots\}$$

Symbol	Meaning	Example
$\in$	belong to	$2, 4, 6 \in \text{integers} \rightarrow 2, 4, 6$ belong to integers.
$\neq$	(is) not equal	$7 - 3 \neq 3 - 7 \rightarrow 4 \neq -4$
$<$	less than	$x < y \rightarrow x$ is less than $y$
$\leq$	less than or equal to	$x \leq y \rightarrow x$ is less than or equal to $y$
$>$	greater than	$x > y \rightarrow x$ is greater than $y$
$\geq$	greater than or equal to	$x \geq y \rightarrow x$ is greater than or equal to $y$
$ 2 $	The absolute value of 2,	$ 2  = 2$ , the absolute value of 2 positives is 2
$ -5 $	The absolute value of -5,	$ -5  = 5$ , the absolute value of 5 negatives is 5

Note:  $x$  and  $y$  are letters to replace integers. Absolute value is the distance a number from zero.



### Task 7

You will be given a conversation of two students talking about integers with some blank spaces. Complete the blanks using expressions of asking and giving opinions in the left box and adjectives and adverbs in the right box, then act it out with your partner.

Ashley and Sinta are having conversation about the assignment given by their lecture in food court.

- Ashley : Have you read the paper that the professor assigned for tomorrow class?...**(2)**.... it's ....**(1)**..... interesting.
- Sinta : No. Not yet. What is it about?
- Ashley : It's about integers. There are some questions that should be solved in pairs and we are going to have group discussion ....**(2)**.....
- Sinta : Well,.....**(3)**....., it isn't ....**(4)**..... at all.
- Ashley : By the way, let's study together. We need to solve all the questions.
- Sinta : All right, professor ....**(5)**..... likes to give ....**(6)**..... questions to his students.
- Ashley : .....**(7)**..... dividing the questions? Each of us does five questions.
- Sinta : .....**(8)**..... we'll get ....**(9)**..... understanding if we discuss it together.
- Ashley : All Right, then.



Snta : Are decimals, fraction and percents included in integer?  
 Ashley : No, Integers are whole numbers and their negative opposites.  
 Sinta : Meaning that it includes positive whole numbers, ....(10)..... whole numbers and zero?  
 Ashley : That's right.  
 Sinta : Do you know the symbol representing integer?  
 Ashley : Well, I've read the materials about it ....(11).... Hmmmm, it's alphabet zi, capital zi. Zi stands for Zahlen, it's used to denote set of integers.  
 Sinta : I see. It's quite easy. ....(12).....?  
 Ashley : ...(13)..... the same as you.  
 Sinta : What issues do we have to solve on integers?  
 Ashley : Not so many. It's about adding, subtracting, multiplying and dividing integers, especially the rules of all of them.  
 Sinta : There is only 15 minutes left before the next class start. Let's continue our discussion ....(14)..... the class ends.  
 Ashley : Okay.

**Z**  
 Letter which represents integer

I think          I believe          I feel  
 What about                  to my mind  
 What do you feel?

before                  interesting  
 quite                  tomorrow  
 after                  sometimes  
 negative                  better  
 unexpected



**Task 8**  
**Let's Play Survey Game**

Ask your friends' opinions about integers and their reasons of having such opinions. You have to fill the table below and then share it to your friends in front of the class.

interesting, boring, easy, difficult, challenging, complicated, tricky

No	Your friends' names	Opinions	Reasons
1			
2			
3			
4			
5			



### Task 9

Complete the following situations with expressions of asking and giving opinions and then identify the level of formality. Using the completed situation, practice them with your partners. Number one has been done for you.

- Jacob : Excuse me, are you mathematic department student?  
 Ana : No. I'm not. I'm art department student.  
 Jacob : As students of art department, *what is your opinion* about mathematics?  
 Ana : *In my opinion*, mathematics is a scary subject. It consists of dreadful formulas.  
 Jacob : Well, beside that, *what do you think* of the significance of mathematic in daily life?  
 Ana : *From my point of view*, people don't need all those formulas in their daily life. For example, if we go to a supermarket to buy some food or drink we don't need to use sin or tangent.  
 Jacob : Well thank you, your opinion is really helpful.  
 Ana : Any time.

- Lubis is asking Sean for helping him to solve a question in the application of integer.

- Lubis : Sean, check this out.  
 Sean : All right.  
 Lubis : .....of this question?  
 Sean : Well, this question is interesting.  
 Lubis : I barely solve this question.  
           Can you solve it? I just want  
           to make sure that my answer is right.  
 Sean : Sure. ....it's really easy question.  
           First, you need to find the amount  
           of temperature change and set up  
           a proportion.  
 Lubis : The change of temperature is 40°, then how is the proportion?  
 Sean : The distance of second temperature form the ground is 10,000 feet.  
           The question is how much the temperature drops per 1000. Then you need  
           to subtract 1000 with 10,000 and multiply the result with 40.  
 Lubis : Wow, that's great. ...., you never find it difficult to solve problems  
           in integer.  
 Sean : I couldn't agree with you more.  
 Lubis : Thanks, dude.  
 Sean : Anytime.

One day in July, the temperature at ground level at the airport was 90°. A pilot reported the temperature at 10,000 feet was 50°. How much did the temperature drop per 1000 feet?

$$\frac{1000}{10000} \times 40 = 4$$

Continued....

3. Hana and Milley are having a chat after their exam is finished. They are discussing about the question appeared in the exam paper.

Hana : How is your exam? I'm a bit worried of mine.

Milley : ....., it's quite easy-to-solve.

Hana : Really? You solve all those dreadful questions of integer?

Milley : ....., integer isn't that scary.

Hana : So, did you solve the question number four?

Milley : I forget the questions, what was about?

Hana : It's about the longitude of New York and Tokyo.

Milley : I see. ....discuss it together? I'll help you to solve the question.

Hana : Sure. My mind is not at ease at all.

Milley : I ..... you must use the number line. Look, London is 0. New York is in the west side of London and Tokyo is in the east side of London. If east side is the positive direction so New York is in negative direction.

Hana : Why couldn't I understand this?

Milley : I ..... you were in panic. All right, should we study together, next time?

Hana : ....., I must accept your offering to study together.

Milley : That's a good decision.

#### Question no.4

London, England, is located at  $0^\circ$  longitude. Write integers for the location of New York City whose longitude is  $74^\circ$  west and Tokyo whose longitude is  $140^\circ$  east. Assume that east is the positive direction.



#### Task 10

Study the following explanation with your partner.



#### Grammar: Adjectives

According to Cambridge Advanced Learners' Dictionary, an adjective is a word that describes a noun or pronoun. Adjective has its own formation. Adjectives can also be identified from its position towards nouns. Below is the explanation of adjectives formation and its position towards noun.

#### A. Formation of adjectives

##### 1. Adjectives formed with suffixes

Many adjectives related to verbs or nouns have characteristics ending (suffix). The suffixes change verbs or nouns into adjectives. Each of suffixes has its own meaning.

Continued...

## B. Formation of adjectives

### 2. Adjectives formed with suffixes

Many adjectives related to verbs or nouns have characteristics ending (suffix). The suffixes change verbs or nouns into adjectives. Each of suffixes has its own meaning.

-able (capable of being): <i>manageable</i>	-ible (like -able): <i>permissible</i>
-ful (full of): <i>boastful</i>	-(i)an (historical period, etc): <i>victorian</i>
-ic: <i>energetic</i>	-ish (have the quality of): <i>follish, redish</i>
-ive (capable of being): <i>attractive</i>	-ly (have this quality): <i>friendly</i>
-ant: <i>hesitant</i>	-ous: <i>humorous</i>

Example:

- I'm attracted by this scheme → I find it very attractive
- A class of forty can be managed → It's just about manageable

### 3. Adjectives formed from prefixes

A prefix added to adjectives has a negative effect.:

un-: uncooked, unimaginable	im-: immoral, impractical
in-: incapable, inhuman	dis-: dishonest, disagreeable
il-: illegal, illegible	ir-: irresponsible, irregular

Example:

I think it's possible to solve the problem. I think it's impossible to solve the problem.

*Possible* has opposite meaning with *impossible*. *im-* gives negative impact to the word *possible*.

### 4. Compound adjectives of measurements

Compound adjectives can be formed by combining numbers with noun in the singular.

Example:

A twenty-year-old-man

**Compound adjective can refer to:**

-age: a three-year-old building	-area: a fifty-acre farm
-volume: a two-litre car	-duration: a four-hour meeting
-length: a twelve-inch ruler	-depth: a six-foot hole
-price: a fifty-dollar dress	-time/distance: a ten-minute walk
-weight: a five-kilo bag	

## B. Position of adjectives

Most adjectives are used in two ways in English:

- Before noun: Integer is an *interesting* topic. (interesting: adj, topic: noun)
- After be, seem (linking verbs):, etc Integer is *interesting*. (is: be, interesting: adj )

**Linking verbs:** be, appear, become, feel, look, prove, seem, smell, taste.

*Adapted from English Grammar Practice for Intermediate Students by L.G. Alexander (1998)*



**Task 11**

After studying adjectives in the previous task, restate the following sentences using correct adjectival forms. Discuss with your partner and share your result of discussion with your friends orally.

A. Adjectives using prefixes or suffixes

1. I know I hesitated before agreeing. I couldn't help being *hesitant* before agreeing.
2. I don't know where you find all that energy. You're tremendously.....
3. How many absents can be permitted? How many absents are.....
4. Sometimes she doesn't behave in a responsible manner. She's quite.....
5. Bob is not very capable of making decision. He's.....

B. Compound adjectives

1. The project costs two million rupiahs. It's a two-million-rupiahs project
2. The lecturer is thirty-five years old. She's.....
3. The conference lasts two days. It's.....
4. The faculty building is a half of hectare. It's.....
5. The examination takes two hours. It's.....



**Task 12**

**Let's Play Game**

You will be given a game on asking and giving opinions. Study the game's rules and play the game based on the rules with your classmates. Do some rehearsal before playing the game.

<p>Type of activity: Pair and whole class</p>	<p>Function practiced:</p> <ul style="list-style-type: none"> <li>- Stating Opinion</li> <li>- Describing character</li> </ul>	<p>Exponent:</p> <ul style="list-style-type: none"> <li>- I think that....</li> <li>- In my opinion, etc.</li> <li>- Adjective for describing characters</li> </ul>
<p>Situation: You are in the division of research in the student organization. Someone in your division is going to be chosen as the leader. Naturally, you hope it's going to be you.</p>	<p>How to do:</p> <ul style="list-style-type: none"> <li>- Study the vocabulary.</li> <li>- Choose one of the names to act out. Flo will pair up with Sam Alex will pair up with Terry Pip will pair up with Robin</li> <li>- Each pair should discuss who is suitable for the leader by stating each of opinions based on the card.</li> <li>- After take out a name as a</li> </ul>	<p>Vocabulary:</p> <ul style="list-style-type: none"> <li>- Efficient</li> <li>- Cheerful</li> <li>- Bad-tempered</li> <li>- Good-natured</li> <li>- Hopeless at....</li> <li>- Rigid</li> <li>- Narrow-minded</li> <li>- Open-minded</li> <li>- Careful</li> <li>- Precise</li> <li>- Careless</li> </ul>

	<p>leader, each pair should share it to the other pairs. They should state their opinion based on the card, why they choose the person.</p> <p>- If in your class consists of twelve students or more, then there will be two or three students who act out a name.</p>	<ul style="list-style-type: none"> <li>- Disorganised</li> <li>- Terrible</li> <li>- Pompous</li> <li>- Indecisive</li> <li>- Down-to earth</li> <li>- Inefficient</li> <li>- Grumpy</li> <li>- Miserable</li> </ul>
--	---	--

Note for the game:

Talk to people and find out what they think. Try to convince them of your opinion. Don't tell anyone directly what you think of them, of course, but you can tell them what the other people think about them, if you like.

The cards are in the appendices.

## C Let's Do More



### Task 13

You will be given some situations. Choose one of the situations and create a dialogue talking about integers and use the expressions on asking and giving opinions that you have learned in the previous tasks, then acting out the dialogue with your partners in front of the class. The dialogue should be 200-250 words long.

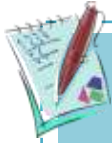
You're talking with your junior who asks your help for solving a question on integers.

You're having discussion with your classmates about how to multiply integer.

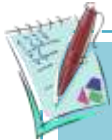
You're talking to your lecturer. Both of you are discussing of how to solve certain questions in dividing integers. You can decide the questions on your own.

You're talking to someone in a seminar who happens to be sitting next to you and you are discussing about the materials about integers which have been presented by the speakers.

You're a tutor and you're having discussion with your student on solving a question related to integers. You can decide the questions on your own.

**D****Let's Do Evaluation****Task 14**

From the subtopics you have brainstormed in Task 2, choose one of the subtopics and do role play with your partner in front of class using expressions of asking and giving opinions about the subtopic you have chosen.

**E****Homework****Task 15**

Interview three of your friends on the same departments. You are allowed to interview the upper semester or the lower semester. Ask their opinions about the advantages and disadvantages of studying integers. Then report your interview results in the class.

*Quote Corner*  
*Quote Corner*

**"Educating the mind without educating the heart is not education et all"**

**\_Aristotle\_**

## F Let's Make Reflections

### Self-Assessment

You have learned all the tasks in this unit. Do reflection based on yourself. Put a tick ( ✓ ) mark on the table of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for giving and asking opinions		
I can differentiate the level of formality of the expressions of asking and giving opinions		
I can apply easily those expression in conversation		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you find when you learn this unit here:

.....

.....

### Peer Assessment

Ask three of your friends that have worked with you in learning this unit and ask them to give you assessment by putting a thick mark ( ✓ ) on the table of Yes/No according to the statements.

Name of being assessed:.....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						



**Language Functions**

Asking for Opinions	Giving Opinion
What about..?	I think...
What do you think of...?	In my opinion...
What is your opinion of...?	It's my considered opinion that....
Do you have opinion on...?	

**Grammar: Adjectives**

## a. Formation of Adjectives

Formed with suffixes: manageable, friendly, humorous, etc.	Formed from prefixes: incapable, immoral, dishonest, etc.	Compound Adjectives: a six-foot hole, a twelve-inch rule, a red-haired guy, etc
---	--	--

## b. Position of Adjectives

Before noun: an *unimaginable* miracle.

After be or linking verbs: The miracle is *unimaginable*.

## LIST OF VOCABULARY

English	Parts of Speech	Pronunciation Transcript	Indonesian
able	adjective	/ ' eɪ . b l /	mampu
add	verb	/ æ d /	tambah
appropriate	adjective	/ ə ' p r ə u . p r i . ə t /	sesuai
assign	verb	/ ə ' s aɪ n /	memberikan
attend	verb	/ ə ' t eɪ n d /	mengikuti
carefully	adverb	/ ' k e ə . f ə l i /	teliti/hati-hati
chart	noun	/ tʃ a : t /	grafik
consider	verb	/ k ə n ' sɪ d . ə r /	mempertimbangkan
contain	verb	/ k ə n ' t eɪ n /	berisi
decide	verb	/ dɪ ' s aɪ d /	menentukan
delegate	noun	/ ' d e l . i . g ə t /	delegasi
divide	verb	/ dɪ ' v aɪ d /	membagi
drone	verb	/ d r ə ŋ /	Berbicara terus menerus
exaggerate	verb	/ ɪ g ' z æ dʒ . ə . r eɪ t /	Melebih-lebihkan
indicate	verb	/ ' ɪ n . dɪ . k eɪ t /	menunjukkan
line	noun	/ l aɪ n /	garis
matter	noun	/ ' m æ t . ə r /	persoalan
multiply	verb	/ ' m ʌ l . tɪ . p l aɪ /	mengalikan
nuance	noun	/ ' n j u : . a : n t s /	nuansa
pitch	noun	/ pɪ tʃ /	titinada
prefix	noun	/ ' p r i : . f i k s /	imbuan awalan
sign	noun	/ s aɪ n /	tanda
solve	verb	/ s ɒ l v /	memecahkan
subtract	verb	/ s ə b ' t r æ k t /	mengurangi
suffix	noun	/ ' s ʌ f . i k s /	imbuan akhiran
vowel	noun	/ v aʊ ə l /	huruf vocal
willingness	noun	/ ' wɪ l . ɪ ŋ . n ə s /	kemauan

## UNIT

# 2

We could find articles on quadrilaterals in the library.



Picture 2.1

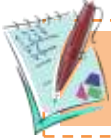
In what semester did you study quadrilateral? What did you learn about quadrilateral? You may have been familiar with some particular terms of quadrilateral. Can you give examples of them?

In some particular situations in the classroom, you may ask or give suggestions to your friends or your lecturers about the situation you are in or the things related to the situations.

In this unit, you are going to learn of how to ask and give suggestions to others in a conversation. The topic you are going to deal is quadrilateral.

# A

## Let's Get Started

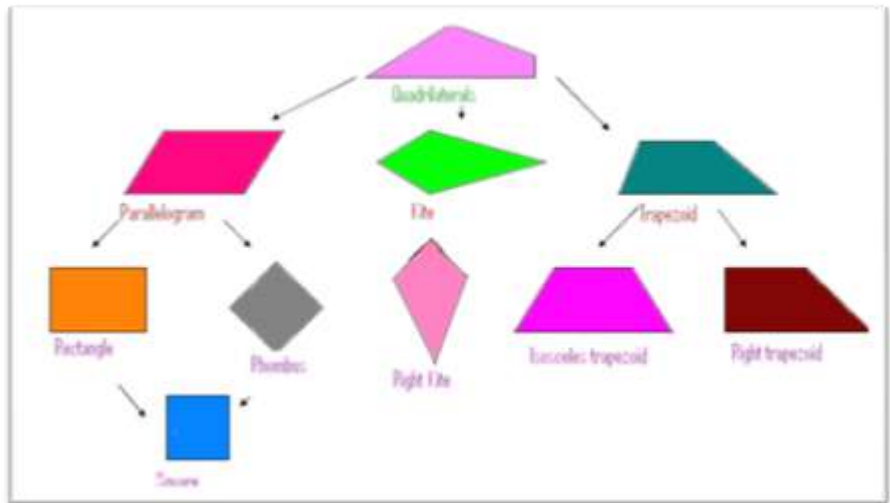


### Task 1

Study the following picture and answer the questions.

Questions:

1. What is the picture about?
2. How do you find the picture?
3. Suppose that your friend find it difficult in identifying types of quadrilateral and their properties. She asks you to give her suggestions how to overcome her difficulties. What kind of suggestions will you give to her?
4. Can you give your suggestions using appropriate expressions of giving suggestions?
5. Can your friend also use the expressions of asking for suggestions?
6. If you have already known such expressions can you give examples of them?

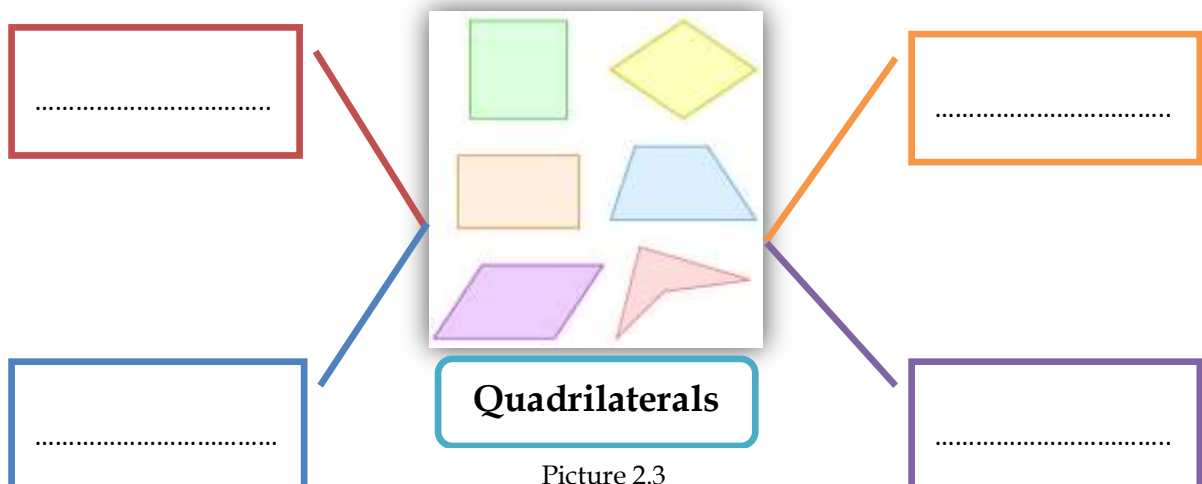


Picture 2.2

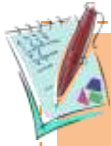


### Task 2

Below is a mind map of quadrilaterals. Think about quadrilaterals and write the things that you usually learn in quadrilaterals on the chart.



Picture 2.3

**B****Let's Take Action****Task 3**

Below are some verbs and nouns that you are going to find in Task 4. Complete the table and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation Transcription
1	base	noun	alas	/beɪs/
2	classify	.....	.....	.....
3	follow	.....	.....	.....
4	kite	.....	.....	.....
5	leave	.....	.....	.....
6	paper	.....	.....	.....
7	parallelogram	.....	.....	.....
8	rhombus	.....	.....	.....
9	shape	.....	.....	.....
10	trapezoid	.....	.....	.....

**Task 4**

You will listen to a conversation containing some expressions of asking for suggestions about something. Listen carefully and take notes for important information, then tell orally the main point of the conversation to your partner. Ask your partner to tell back to you and compare whether you and your partner have the same understanding or not. The words below will help you in telling the main point of the conversation.

What? .....

Who? .....

When? .....

Where? .....

Why? .....

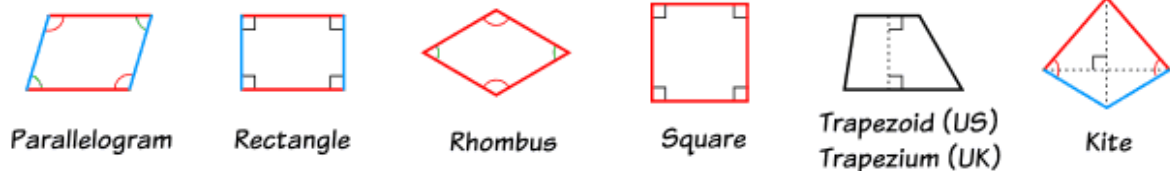
How? .....

# For Your Information



## Quadrilaterals at a glance

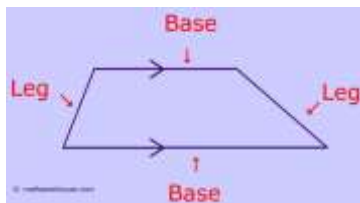
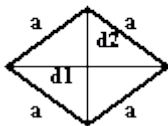
Quadrilateral is a flat shape with four straight sides. Quadrilateral is 2-dimensional shape which the sum of the angles is  $360^\circ$ .



### Properties Quadrilateral

Parallelogram	Rectangle	Rhombus	Square	Kite	Trapezium	Isosceles Trapezoid
Opposite sides parallel Opposite sides congruent Opposite angles are congruent Consecutive angles are supplementary Diagonal Bisect each other	Four right angles  Diagonals are congruent	Four congruent sides  Perpendicular diagonals  Diagonal bisect opposite angles	All the characteristics of parallelogram, rhombus and kite are included in the characteristics of square	2 pairs adjacent congruent sides  Opposite sides not congruent or parallel.	One pair opposite sides parallel  Leg angles supplementary	Legs are congruent Base angles congruent Diagonal congruent

**Rhombus**  $d_1$  and  $d_2$  are diagonals



Symbol

$\perp$  : perpendicular

$\cong$  : congruent

// : parallel

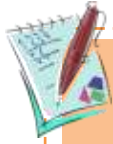
$\angle$  : angle

Right angle means angle of  $90^\circ$ .

Bisect means "divide into two".

If two sides are congruent, it means that the sides have the same shape and size.

If two sides are parallel, it means that the sides have the same shape and different size.




### Task 5

Study the following explanation with your partner.



## Language Functions: Asking for Suggestions

Below are the expressions of asking for suggestions:

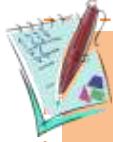
Expressions	Level of formality
If don't mind, would you like give me your suggestions? Would you give me your suggestions?  Could you recommend.....? Could you suggest me.....? Do you have suggestions for me?  Can you tell me what should I do? What should I do? Any idea?	More formal  Less formal

There are many others of the expressions. In conversation, you may apply the expressions you have been familiar with.

*Quote Corner*  
*Quote Corner*

**"Live as if you will die tomorrow. Learn as if you were to live forever"**

**-Mahatma Gandhi-**



### Task 6

Below are two conversations talking about quadrilateral with different level of formality. Identify the level of formality in each conversation and complete the blanks parts in each conversation using appropriate expressions of asking for suggestions or any other responses in the brackets, then act them out with your partner.

A. Rachel and Charlotte are close friend. They often share the problems that they have. Rachel seems have problem and she wants to ask for suggestions to her good friend.

Rachel : I am tutoring mathematics for first year of a senior high school student, but he seems doesn't interested in math. ....(1).....?

Charlotte : You may use interesting way in giving explanation to him, or you may use ....(2)..... Some students find it interesting and challenging.

Rachel : Tomorrow's topic is.....(3)..... Can I apply games in teaching it?

Charlotte : Sure.

Rachel : ....(4)..... of what kind of games I can employ?

Charlotte : Well, for example, in introducing the ...(5)..... of quadrilateral you can use puzzle. He ought to solve each question by finding information from the book or other resources. It will be more interesting than listening to explanation only.

Rachel : Oh, I see. I'll make the ....(6).... in the form of family tree of quadrilaterals. In the top of the tree I'll write a question, for example "are both pairs of the opposite side parallel?" and the down line I'll write yes or no and there will be questions again. In the bottom of the tree there will be boxes and he has to conclude what the types are based on the questions. How is it?

Charlotte : That sounds good.

Rachel : Really? Or do you have any other .....(7).....?

Charlotte : Let's try that one first, then we will try to find another ....(8)..... if it doesn't work.

Rachel : All right, thank you so much.

Charlotte : You're welcome.

- a. suggestions
- b. solution
- c. games
- d. puzzle
- e. quadrilateral
- f. properties
- g. do you have any idea...
- h. can you tell me what should I do?



B. Sania was absent in the yesterday class, Mr. Mycroft' class because she had to attend an international seminar. Therefore, to cover the materials she missed, she studied by herself doing some problems in quadrilateral. However, she found it difficult to solve particular problems. She wanted to ask for suggestions to Mr. Mycroft' assistance.

something	angle	questions	overview
thing	library	characteristics	books
Would you tell me...		Could you suggest..	

Sania : Excuse me. I'm Sania, Mr. Mycroft's student. Can I ask you .....(1).....?

Assistant : Sure. I'm a little bit free now.

Sania : I was trying to solve some problems on quadrilateral but I found it difficult to solve this question. ....(2).....how to solve this question?

Assistant : Let me see the .....(3).....

Sania : Here.

Assitant : Before I give my suggestion, I want to ask a question to you? Do you familiar with the .....(4)..... of rhombus.

Sania : A little bit.

Assistant : As I remember, Mr Mycroft gave some .....(5)..... about the properties of quadrilateral. If you attend his class, you should have known.

Sania : I was absent yesterday because I had to attend an international seminar.

Assistant : Well. First .....(6)..... is you need to know whether  $\angle DAB$  and  $\angle DCB$  are congruent or supplementary, then you can operate the function and find the .....(7)..... of each in degree and finally you can find  $\angle ADC$ .

Sania : Oh I see. I get it now.

Assistant : So, are they congruent or supplementary?

Sania :  $\angle DAB$  and  $\angle DCB$  are congruent.

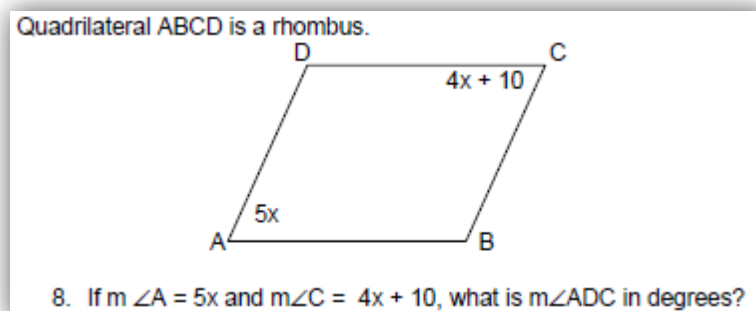
Assistant : That's right. Is there anything else?

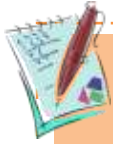
Sania : Well, It's said that Mr. Mycroft showed students few.....(8)....for his class. ....(9).....me which book is good and easy to be understood?

Assistant : Mr. Mycroft usually uses this book. You can find it in the .....(10).....

Sania : Well, thank you so much for your suggestions.

Assistant : You're welcome.





### Task 7

Let's Play a Game

Play information-gap game below based on the card you are going to receive.

#### How to play

You will be given a card containing a question about quadrilateral. Each card has a pair in which the pair contains the answer of the question. Find your friend who has the same card as yours then ask her/him to give suggestions of how to solve the question based on the answer on the card.

After knowing the answer for the question on your card, you and your partner should show the card in the class and share with your friends orally the answer of the questions.

Note: the cards are in the appendices.



### Task 8

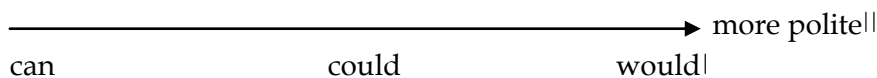
Study the following explanation with your partner.



### Grammar: Modal Auxiliaries

It is called as modal auxiliaries because they add to verb some meaning. Modal auxiliaries consist of *can, may, should, ought to, must, have to, may* and soon. Each of them has its own function. They can be used to express *ability, permission, obligation or advisability, necessity, possibility* and soon.

In the previous tasks, you have seen that modals appear in the expressions of asking for suggestions such as *can, could, and would*. Those are used to express politeness.



Continued.....

**“should, ought to, have to and must”**

**Obligation or advisability**

*Should* and *ought to* are very similar. They both used to talk about obligation or to give advice.

For example:

Obligation (what one is expected to do) → You should (ought to) do your homework every day.

Advisability (what is wise for one to do) → You should (ought to) study hard if you want to have good results in your study.

The degree of should and ought are the same. They use to suggest some actions which may possibly not be acted upon.

**Necessity**

What makes different between necessity and obligation is that necessity does not allow for the possibility of rejection (in term of suggestion).

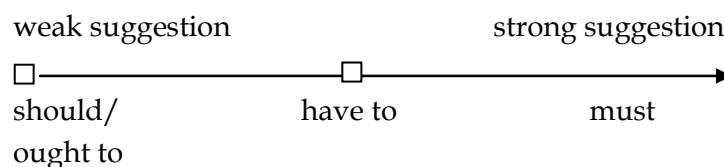
*Must* and *have to* are modal auxiliaries which are used to express necessity.

They use to give strong recommendation or suggestions.

For example:

You must (have to) read at least 5 articles in Mr. Morriarti’s class.

However, **must** is generally felt as stronger than **have to**. Below is the continuum of those modal auxiliaries.



The negative **must** often has different meaning from the negative of **have to**:

Must not	It denotes that it is strongly recommended not to take certain course of action. For example: You <i>must not</i> forget to do your homework because he will not give compensation if you do not do yours.
Do not have to	It denotes that it is not necessary to take certain course of action. For example: You <i>do not have to</i> bring a pile of books in this class.

*Adapted from Basic English Usage by Michael Swan(1984) and Modern English by Marcella Frank (1972)*



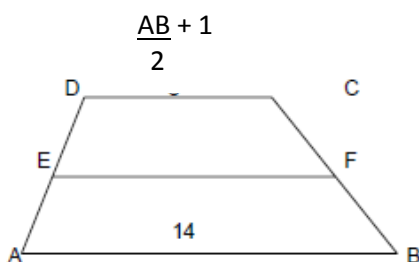
### Task 9

You will be given a conversation between two students containing some modal auxiliaries. Analyze the modal auxiliaries used by the speakers with your partner whether the modals are used to express obligation or necessity and give your reasons, after that share your analysis orally with your classmates.

On a free time after the class ends in the afternoon. Molly and Luna are having a chat about the lecture in the campus park.

- Luna : It's so refreshing sitting down here after having long lecture.  
Molly : I think we should come here often to refresh our mind.  
Luna : You're right. Anyway, the last lecture was so tiring. I can't imagine that I have to remember those all theories about quadrilaterals properties.  
Molly : Why should you memorize that? You don't have to do that. You just have to be familiar with each type of quadrilateral. Just use your logic by imagining the shape of them.  
Luna : I'm with you there.  
Well, I actually have one question that I want to discuss with you.  
Molly : All right. What is it about?  
Luna : About median of trapezium.  
Molly : Well, step 1 is that you must know the formula to find EF.  
Luna : That's the problem.  
Molly : May be you should study more diligently.  
All right I'll give you hint. First, you must find the formula by yourself because I won't tell you. Second, before you operate the formula you must find DC. After you find DC, you can apply to the formula and finally you can find EF.  
Luna : I hope that you will solve it for me.  
Molly : Don't be such a cry baby. Study hard.  
Luna : You sound like my mother.  
Molly : That's good, I think.

ABCD is a trapezoid with median EF. If  $DC = \frac{AB}{2} + 1\text{cm}$  and  $AB = 14\text{ cm}$ , find EF.



Solution:

Step 1. Write the formula

$$EF = \frac{1}{2} (AB + DC)$$

Step 2. Find DC

Step 3. Substitute the values of DC and AB into the formula. Solve for EF.



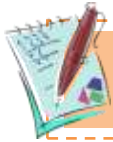
### Task 10

Study the following conversation in pairs and answer the questions based on the conversation.

- Lisa : Excuse, are you Mary Watson, professor Snape's assistant?  
Watson : Yes, I am.  
Lisa : I'm Lisa Putri. I got some assignments from the professor. If you don't mind, would like to give me some suggestions about them?  
Watson : Sure, then.  
Lisa : The professor asked us to summarize about quadrilaterals and he said that we just needed to summarize important subtopics of quadrilateral. After I read some books or any other resources, they all seem to be important but it will be very much. Could you suggest me what I should summarize about quadrilateral?  
Watson : Well, according to you, what subtopics which are considered to be important to summarize?  
Lisa : I have a list of them. I think the properties of quadrilaterals, the characteristics, area and perimeter.  
Watson : Yes, those are important. If I may suggest you, you can add the application of quadrilateral in real life, the angle of each type of quadrilateral.  
Lisa : Can I use some graph or figure?  
Watson : Sure. You can use tables or any other graphs. I'd like suggest you to use family tree of quadrilateral in summarizing the properties.  
Lisa : I was thinking about that too.  
Watson : Okay, anything else?  
Lisa : Can you recommend me what book I can use for the reference? He asked us to use three or more references.  
Watson : Actually there are some modules written by the professor. Just try to look for them in the library. He never tell his students that he wrote some modules but if you go to look for them. You will find some.  
Lisa : Mary, thank you very much for your suggestions. Those will be really helpful.  
Watson : You're welcome Lisa.

### Questions

1. What is talked about by Lisa and Mary in the conversation?
2. What is the relationship of the speakers?
3. According to the conversation, can you identify the level of formality?
4. Justify your answer for number three by mentioning the indicators that determine the level of formality of a conversation?
5. Can you identify the expressions of asking and giving suggestions in the conversation above? (Mention them).



### Task 11

Study the following explanation with your partner.



## Language Functions: Giving Suggestions

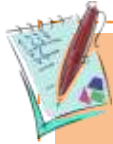
Suggestions are not as strong as advice. *Might (want to), could, why don't/doesn't* and *why not* are often used to make suggestions.

Might (want to) and could	<i>Might (want to)</i> and <i>could</i> are often to express a choice of possible actions. <i>Might</i> is often used with <i>want to</i> . Example: You might ask the librarian the book or you could wait until the professor gives it to us.
Why not and Why don't/doesn't	<i>Why not</i> and <i>Why don't/doesn't</i> are both question forms and ends with a question mark. <i>Why not</i> and <i>Why don't/doesn't</i> are not very common in conversation. Do not use them in academic writing. Examples: Why not prepare for the exam from now? Why don't you discuss it with your friends?

Here are other examples of the expressions for making suggestions:

Situation	Expressions	Examples
<b>You give suggestions to your friends.</b>	Let's.....	Let's draw the concept first. What about using games?
	What about....., (then)?	
	We could always.....	We could always make an analysis on every question.
<b>In a meeting of your organization</b>	I'd like to suggest/propose....	May I suggest limiting the invitation, then?
	May/might I suggest....., (then)?	If I may make a suggestion, voting will do.
	If I may/might make a suggestion.....	I'd like to suggest him as the moderator.

*Adapted and combined from Function in English (1992) and Advice and Suggestions from cambridge.com*



### Task 12

You will be given some conversations talking about quadrilaterals with some blank parts. Identify the level of formality of the conversations and complete the blanks parts with your own words or the appropriate expressions of asking and making suggestions, then act them out with your partner.

A. Zeta is asking for suggestions to his brother's friend. He is seven years older than Zeta.

George Wiggins : Hi, Zeta. Is your brother's ....(1)....?

Zeta : He's going to the supermarket with mom. He said that they will be home in 10minutes.  
Please, come in.

Zeta : Well, my brother said that you like math.

George Wiggins : Yeah...

Zeta : Actually, I got .....(2)..... from my lecture.  
If you don't mind,.....(3)....?

George Wiggins : Sure.

Zeta : I find it difficult to solve this question.

Could .....(4).....of how to solve the question?

George Wiggins : You know how to find area and perimeter of .....(5)....., right?

Zeta : Yeah...

George Wiggins : First, what about find AE?

Zeta : I've found AE. It is 5 cm but I am bit confuse about CB. Should I convert the root form?

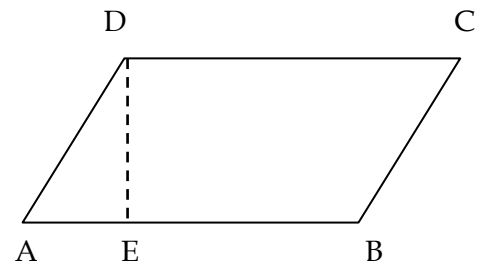
George : You can just .....(6)..... in the root form.

Zeta : Oh I se. AD and BC are parallel so BC is 13. Well, I think I know how to solve the question now.

George : You could change  $\sqrt{27}$  into  $3\sqrt{3}$ .

Zeta : All right, thank you for your .....(7).....

George : Not at all.



$$AD = 13 \text{ cm}$$

$$DE = 12 \text{ cm}$$

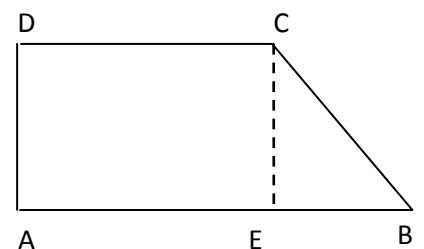
$$EB = \sqrt{27} \text{ cm}$$

B. Yasmin is having a discussion with her friend about the topic that has been explained by their lecturer.

Yasmin : I haven't .....(1)..... yet about what had been explained by Mr. Holmes. I often get troubles with angles.

Jane : I think angles in quadrilateral are quite simple.....(2).....we study together, now? The next class is two hours later from now.

Yasmin : That's good idea. ....(3)..... sit at that bench.



$$DA = 12 \text{ cm}, EB = 5 \text{ cm}$$

Find angle BCE and EBC

- Jane : All right, then.
- Yasmin : Can you explain how to .....(4)..... this question?
- Jane : This is trapezoid. You may add a new dot as E, then draw line from C to E. Line CE is .....(5)..... to Line DA so both of them are 12 cm. To find out EB you can subtract AB with DC, so EB is 5.
- Yasmin : Then, I can find line CB by using Pythagoras, right?
- Jane : That's right. But why don't you find the angle by using tangent of C angle so you don't have to find line CB.
- Yasmin : Oh, I see.
- Jane : Remember. The .....(6)..... of angles in a triangle is 180 degree.
- Yasmin : Yeah. In the end, I can find angle B by subtracting 180 with angle E and C.
- Jane : .....(7).....
- Yasmin : You're so clever, Jane. Thank you.
- Jane : Any time.



### Task 13

Let's Play a Game.

Play the game according to the following guideline. Use the expressions of asking and giving suggestions you have learned in the previous tasks.

#### Situation:

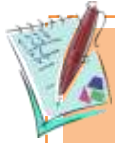
There are several types of materials containing quadrilaterals which have been recommended by your lecturer but you can't afford all of them. You want to have the most effective material for you to study and surely the most affordable one. In order to get such material, you are going to ask your friends' suggestions about the materials.

#### How to play:

- Make a group of three or four.
- One of the members will be the one who asks for suggestions and the rest members will be those who make suggestions.
- Those who give suggestions will suggest only one type of materials based on the card. They have to mention the reasons why they have such suggestions by explaining the materials based on the cards.
- After getting all the suggestions, the one who asks for suggestions should make a decision which material she/he will choose.
- Share the decisions with your friends in the classroom and your reasons of choosing such material.

Note: the cards are on the appendices.



**C****Let's Do More****Task 14**

You will be given some situations. Choose one of the situations and create a dialog talking about quadrilaterals and use the expressions on asking and giving suggestions that you have learned in the previous tasks, then acting out the dialogue with your partners in front of the class.

You have discussion with your partner about the application of quadrilaterals in real life that you are going to present in the class.

You find it difficult to solve a particular problem of quadrilaterals and you want to ask suggestions your professor's assistant.  
You can determine the problem by yourself.

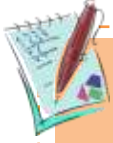
You want to ask for suggestions to your friend from the upper semester a good material for studying quadrilateral because you find it difficult to understand about quadrilateral by reading the materials that you have.

You want to ask suggestions to your friend of how to solve a particular problem on complex quadrilaterals.  
You can determine the problem by yourself.

*Quote Corner*  
*Quote Corner*

**"It does not matter how slowly you go as long as you do not stop"**

**\_Confusius\_**

**D****Let's Do Evaluation****Task 15**

From the subtopics you have brainstormed in Task 2, choose one of the subtopics and do role play with your partner in front of class using expressions of asking and giving suggestions about the subtopic you have chosen.

**E****Homework****Task 16**

Interview three of your friends on the same departments. You are allowed to interview the upper semester or the lower semester. Ask their suggestions of how to learn quadrilateral easily. Then report your interview results in the class.

# F

## Let's Make Reflections

You have learned all the tasks in this unit. Do reflection based on yourself. Put a tick (✓) mark on the table of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for asking and making suggestions		
I can apply easily those expression in conversation		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you have when you learn this unit here:

.....

.....

.....


### Peer Assessment

Ask three of your friends that have worked with you in learning this unit and ask them to give you assessment by putting a thick mark (✓) on the table of Yes/No according to the statements.

Name of being assessed:.....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						

**Expressions of asking and giving suggestions:**

Expressions		The level of formality
Asking for suggestions	Giving suggestions	
If don't mind, would you like give me your suggestions? Would you give me your suggestions?  Could you suggest me.....?  Do you have suggestions for me? Can you tell me what should I do?	If I may make a suggestion....  I'd like to suggest....  We could always....  What about..... Let's.....	More formal    Less formal

**Modals and their usage:**

Modal	Usage
Should/ought to	To express obligation or advisability. They use to express to give moderate recommendation.
Have to/ must	Have to and must are used to express necessity. They use to give strong recommendation.

## LIST OF VOCABULARY

Vocabulary	Part of speech	Pronunciation Transcript	Indonesian Equivalent
<b>angle</b>	noun	/ 'æŋ.ɡl /	sudut
<b>apply</b>	verb	/ ə'plai /	menerapkan
<b>area</b>	noun	/ 'eə.ri.ə /	luas
<b>base</b>	noun	/ beɪs /	sisi alas
<b>challenging</b>	adjective	/ 'tʃæl.m.dʒɪŋ /	menantang
<b>consider</b>	verb	/ kən'sɪd.ə r /	mempertimbangkan
<b>isosceles</b>	adjective	/ aɪ.sə.s. ə li:z	sama kaki
<b>kite</b>	noun	/ kaɪt /	layang -layang
<b>librarian</b>	noun	/ laɪ'breə.ri.ən /	penjaga perpustakaan
<b>leg</b>	noun	/ leg /	sisi kaki pada trapesium
<b>length</b>	noun	/ len k θ /	panjang
<b>may</b>	Modal verb	/ meɪ /	boleh
<b>measurement</b>	noun	/ 'meʒ.ə.mənt /	pengukuran
<b>overcome</b>	verb	/ ,əʊ.və'kʌm /	mengatasi
<b>particular</b>	adjective	/ pə'tɪk.jʊ.lə r /	khusus
<b>perimeter</b>	noun	/ pə'rɪm.i.tə r /	keliling bangun datar
<b>property</b>	noun	/ pə'rɪm.i.tə r /	sifat (bangun datar)
<b>recommend</b>	verb	/ ,rek.ə'mend /	menganjurkan
<b>rectangle</b>	noun	/ 'rek.tæŋ.ɡl /	segi empat
<b>rhombus</b>	noun	/ 'rɒm.bəs /	belah ketupat
<b>side</b>	noun	/ saɪd /	sisi
<b>square</b>	noun	/ skweə r /	kotak
<b>trapezoid</b>	noun	/ 'træp.i.zɔɪd /	Trapezium

## UNIT

# 3

## What I'd Like to Present to You Today is Linear Algebra.



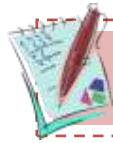
Picture 3.1

How many times do you do presentations every week? How do you organize your presentation? At the end of your presentation, do you always make a generalization/conclusion of the topic that you have been presented?

Algebra is a very well-known part of mathematics. You must have been familiar with it because it is a very broad branch and it is applied in many fields.

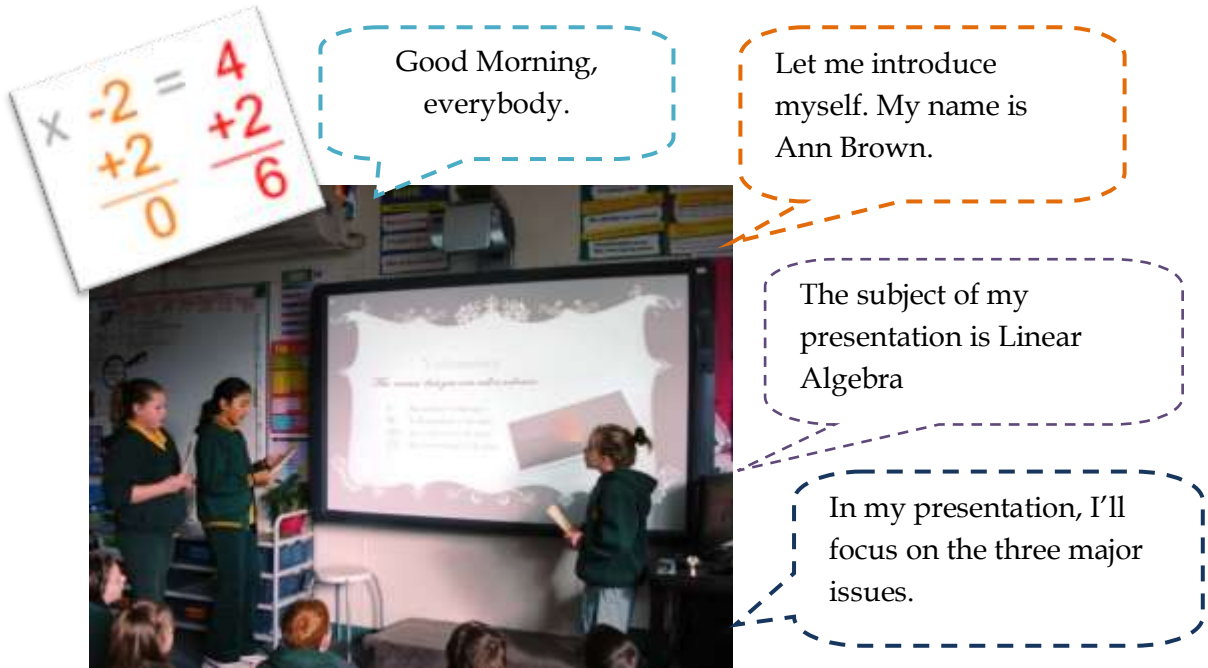
In this unit, you are going to learn some expressions to do presentations and make generalizations. You are also going to practise how to use them in presentations using sub topics of algebra.

**A** **Let's Get Started**



**Task 1**

Study the following picture and answer the questions.



Picture 3.2

**Questions**

1. What kind of activity does the picture show?
2. How often do you do such activity every week in the classroom?
3. How do you organize such activity?
4. The activity has some parts. Can you mention those parts?
5. In every part, you need to use different expressions which signal the part. Can you give an example of the expressions signalling each part?



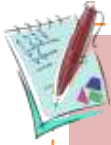
**Task 2**

Algebra is a very broad part of mathematics. Write sub-topics of algebra that you have learned or you are going to learn in the available boxes.



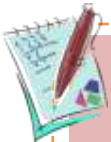
Picture 3.3

A L G E B R A	.....
	.....
	.....
	.....
	.....

**B****Let's Take Action****Task 3**

Below are some nouns that you are going to find in Task 4. Complete the table below and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation
1	branch	noun	cabang	/bra:n tʃ/
2	chart	.....	.....	.....
3	constant	.....	.....	.....
4	issue	.....	.....	.....
5	letter	.....	.....	.....
6	perception	.....	.....	.....
7	phenomena	.....	.....	.....
8	survey	.....	.....	.....
9	value	.....	.....	.....
10	variable	.....	.....	.....

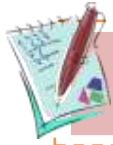
**Task 4**

Listen to the monologue of a student doing presentation and answer the following questions. And share your answer with your friends.

**Questions**

1. Who is the presenter?
2. What is the topic of her presentation?
3. How many issues that are going to be presented? What are they?
4. How long is her presentation?
5. Presentation usually consist of some parts, can you guess how many part of her presentation?
6. Mention the part of her presentation
7. Do you do the same pattern as the monologue when you do your presentation?
8. If you do not do the same pattern as the script above, what are the differences?





### Task 5

Study the following explanation with your partner.



## Useful Expressions for Presentation

A presentation can be divided into some parts: opening, main part and closing. In each part of presentation, you need to use different expressions which are appropriate to be used in the each part.

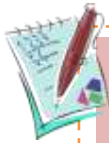
In doing presentation, you may need a lot of expressions such as expression for explaining something, for describing something, for reading a chart or graph, for making generalization and soon. We will learn the expression for reading charts, graph and etc and the expressions of making generalization in the next tasks in this unit.

Below are some examples or useful expression for presentation.

Opening	Main part	Closing
<p><b>Welcoming audience:</b> Good morning/afternoon, ladies and gentlemen. Hello/Hi everyone. etc</p>	<p><b>Saying what is coming:</b> In this part, I'd like to talk about....</p>	<p><b>Indicating the end of your talking:</b> I'm now approaching the end of my presentation. Well, this brings me to the end of my presentation. That covers just about everything I wanted to say about.....</p>
<p><b>Introducing yourself:</b> Let me introduce myself. I'm..... Let me just started by introducing myself. My name is.....</p>	<p><b>Indication the end of a section:</b> This brings me to end of my first point.</p>	<p><b>Summarizing points:</b> To conclude/ in conclusion, I'd like to..... To sum up (then), we..</p>
<p><b>Introducing your topic:</b> What I'd like to present to you today is..... I'm here today to present... Today, I'm going to talk about...</p>	<p><b>Moving to the next part:</b> Let's move on/turn to.... This lead directly to my next point. Let's now take a look at....</p>	<p><b>Making recommendations:</b> We, therefore, recommend that..... In my opinion, we should.....</p>
<p><b>Structuring:</b> I've divided my presentation into three (main) parts. In my presentation I'll focus on three major issues....</p>		<p><b>Generalizing:</b> Broadly speaking,... Generally speaking....</p>
<p><b>Timing:</b></p>		

My presentation will take about 30 minutes.  
It will take about 20 minutes to cover these issues.

*Adapted and Combined from useful phrases for presentation from [www.gnosislearning.com](http://www.gnosislearning.com), [www.courseware.zcu.cz](http://www.courseware.zcu.cz) and module of an Introduction of Business English*



### Task 6

Below is presentation script about sub-topic of algebra with some blank spaces. Complete the blanks with the expressions in the Task 4, then act out the script. Ask your partner to check your pronunciation and gestures.

.....(1)....., Everyone.

I'm .....(2).....

As you have already known that in Linear algebra, we will meet many of linear equations, from the simple one to the complicated one.

Well, to simplify the cumbersome notation for a system in linear system, we can use matrices. Therefore, Today .....(3)..... the notation of matrices.

In my presentation, .....(4)..... two main issues. First is the definition of matrix. Second is the percentage of students using matrices to simplify linear equations. And my talk ...(5)..... 15 minute.

Well, talking about matrix. What is matrix? A matrix is simply a rectangular array of real numbers. An  $m \times n$  matrix is an array having  $m$  rows and  $n$  columns. Let me give an example:

$$A = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{23} & \dots & a_{2n} \\ \vdots & \vdots & \dots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{pmatrix} \begin{matrix} \longrightarrow & \text{row} \\ \\ \\ \downarrow & \text{column} \end{matrix}$$

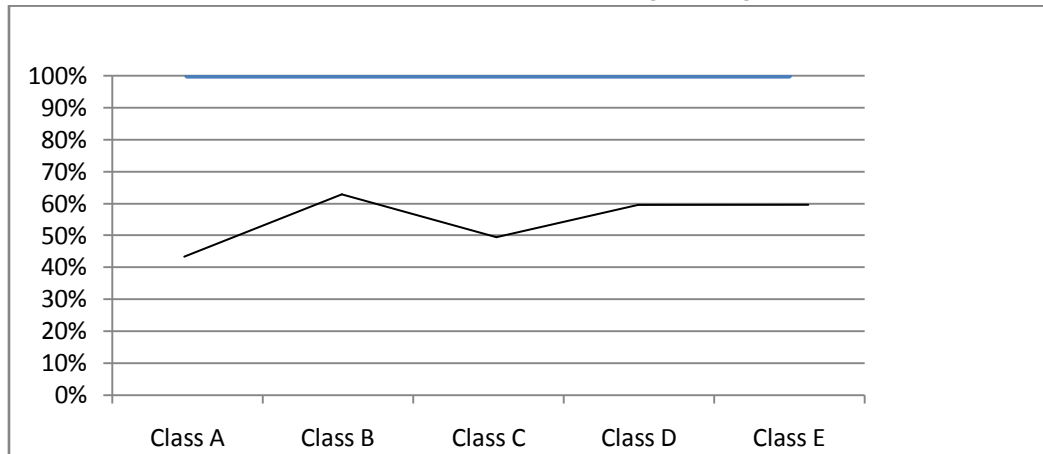
If  $m=n$ , we say  $A$  is square of degree  $n$ . the set of all  $m \times n$  matrices with real entries will be denoted by  $\mathbb{R}^{m \times n}$ , where  $R$  is real numbers.

.....(6)..... the next issue.

Take a look on the chart here.

This is the result of my interview to our friends from class A to E regarding of how many students use matrices to simplify linear equations.

The chart of the students 'percentage using matrices



The percentage shows the percentage of the number of students who used matrices.

The trend shows that in most classes, more than 50 % students use matrix to solve linear equation.

Well, .....(7)..... of my presentation.

.....(8)....., a matrix is a rectangular array of real numbers which usually use to simplify linear equation in linear algebra. And about more than 50% students of mathematics in the semester four use it to simplify linear equation.

Thank you very much.

Quote Corner  
Quote Corner

**The more confident a person stands, the more believable what they are saying becomes.**

\_anonim\_

## For Your Information

In doing presentation, you may need to read some visual aids such as chart, graph or diagram. Below are the expressions which are useful when you use visual aids in your presentation.

### Introducing and Explaining visual aids

Take a look at this,  
Let's have a look at this,  
Here we can see,  
I'd like you to look at this.

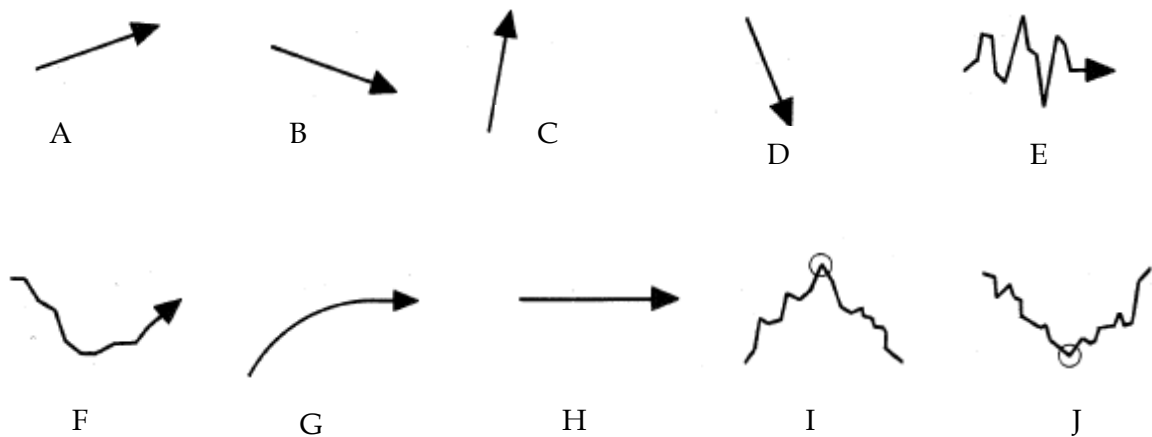
### Highlighting and Commenting visual aids

As you can see.....  
I'd like us to look at.....in more detail.

### Interpreting visual aids

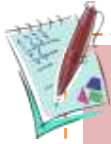
I'm sure the implication of this/the conclusions to be drawn from this are clear to all of us.

By using visual aids in your presentation, you have to know how to read them. Below is how to read the change and development in the visual aids.



A increase/rise	B decrease/fall	C shoot up/take off	D plunge / slump	E fluctuate
E Recover/pick up	F stabilize level off	H remain steady	I peak	J hit low

*Adapted from Presenting in English by Mark Powell (2002)*



### Task 7

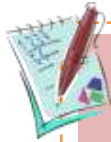
Study the following sentences and the underlined words. Answer the questions based on the sentences in the box with your partner.

It is because using Gauss's method is fast and easy.

Gauss's method has three operations in solving linear system.

In doing presentation, you may need to use many types of expressions.

1. Do you familiar with the form of the underlined words?
2. In your opinions, what is the part of speech of those words?
3. Do you familiar with gerund?
4. If you have familiar with gerund, what is gerund?
5. Can you give three examples of gerund?



### Task 8

Study the following explanation with your partner.



## Grammar: Gerund

A gerund is a **verbal**. It is a word derived from a verb. Though gerunds are verbal, they are act as **nouns**.

For example:

**Cheating** is not allowed in this class.

I enjoy **reading** books.

The form of gerund look identical to present participles (**verb+ing**) but they do not act as present participles. Gerund "**cheating**" acts as a **noun** (subject of the sentence).

Continued.....

The table below shows the positions of gerund in a sentence:

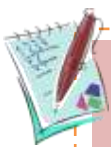
Positions	Examples
Subject of a verb	<i>Cheating</i> is not allowed in the class.
Object of a verb	I enjoy <i>reading</i> books
The complement of to be	His bad act was <i>criticizing</i> too much the presenter.
After prepositions	She is very good in <i>introducing</i> the topic to the audience.
After determiners [a, the, this, some, a lot of]	The <i>talking</i> is very boring.
After adjectives	It was a bad <i>timing</i> to discuss about the matter.
In certain expressions	It's no use <i>trying</i> to help her. It is for <i>pointing</i> to the screen.

Gerunds are often part of phrases for example:

**Arguing about this matter** will not give you advantage.

“**Arguing about this matter**” includes gerund and prepositional phrase, but it is one unit in the sentence acting out as a subject.

*Adapted from Grammar Practice for Upper Intermediate Students By Elaine Walker and Steve Elsworth (2000)*



### Task 9

Identify the mistakes on the second speaker's lines and correct the words by changing them into gerund and then identify the positions of them based on what you have learned about gerund in the previous task. After that, practise the conversations with your partner.



I don't think it can be solved with this method. Will the other method solve it?

Argue like this will not solve it. Just try and decide which one is the best.





I can't wait studying abstract algebra.

I like study linear algebra more than abstract algebra.



This equation is indeed difficult.

You will understand it by practice it again and again.



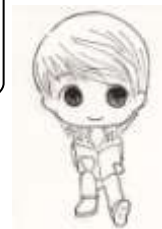
What should I do in this group work?

What you need to do is share your ideas.



Should I do some preparation before I do my presentation?

Yes. A neat preparation is necessary before do a presentation.

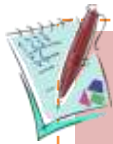


I really need to study hard about advanced linear algebra.

I think that the hardest thing about learn algebra is understand abstract algebra



Picture 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 4.14, 3.15, 3.16



### Task 10

Study the following statements and answer the questions. You are allowed to have discussions with your friends in answering the questions.

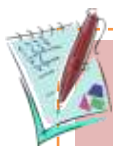
#### Statement A:

Generally speaking, Algebra is very broad topic in mathematics.

#### Statement B:

About more than fifty percent of the students of mathematics in the semester four use matrix to simplify linear equations.

1. Do you usually use such statements in the box in your presentations?
2. In which part of presentation do you usually find statement like statement A?
3. Can you guess the function of statement A in a presentation?
4. Do you familiar with the underlined phrases?
5. Those phrases are used to express something. Can you guess what are the functions of them?



### Task 11

Study the following explanation with your partner.



### Language Function: Making Generalizations

Generalization is a broad statement about a group of people or things. It is a specific kind of conclusion. All generalizations are conclusions, but not all conclusions are generalizations. Generalization is kind of summary.

A generalization is formed from a number of examples or facts and what they have in common. Key words which support instruction for generalization are *all, none, most, many, always, everyone, never, sometimes, some, usually, seldom, few, generally, in general* and *overall*. You can also make generalizations using numbers such as *ninety percent of the students, nine times out of ten...*

Continued....



A true generalization has the following characteristics:

- supported by facts
- agrees with what you already know about the topic
- uses logic and reasoning
- proven with several example

Beside the keywords mentioned before, there are some expressions which can be used to make generalization:

Expressions	Usage	Level of formality
a. In general.....	They can be used in official and scientific writing.	Formal
b. Generally speaking.....		
c. There is tendency for something to.....		
d. On the whole...	It can be applied in some business correspondence.	Less formal
e. What normally happens is...	It is followed by a sentence describing the normal, event, occurrence or situation.	Less formal
f. Usually...	It refers to the high frequency of the statement being true.	Less formal

*Adapted and combined from [www.learner.org](http://www.learner.org), [www.falibo.com](http://www.falibo.com) and Reading Skill Lesson Wetumpka Intermediate School.*



### Task 12

Study the following situations. Make a generalization for each situation orally using the expressions that you have learned in the previous task and ask your partner to check whether your generalizations are valid or not. Situation A has been done for you.

A.

I can understand easily the law on the arithmetic operations.  
 My friends can solve the questions easily using the law on arithmetic operations.  
 I haven't heard my friends complaining in studying the law on arithmetic operations.

Generalization:

The law on arithmetic is an easy operation for most of my friend in the class

B.

Students show enthusiasm in studying fraction.  
Students can solve the questions containing fraction with the same denominators in less than 3 minutes.  
Students can solve most the questions given by lectures containing fraction with the same denominators and different denominators.

Generalization:

.....  
.....

C.

Some students say that they need to read the book twice or more to understand quadratic formulas.  
A few of students can solve particular quadratic formulas in less than seven minutes and have right answers.

Generalization:

.....  
.....

D.

The lecture needs two meeting only to discuss linear algebra.  
Only few students get bad marks on linear algebra.  
Students look happy studying linear algebra.

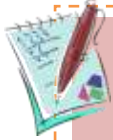
Generalization:

.....  
.....



**“The more that you read, the more things you will know. The more that you learn the more places you’ll go”**

Dr.Seuss



### Task 13

Below is the material for presentation. Make a group of three and each of members should do presentation with the material and using the appropriate expressions that you have learned in the previous tasks. Apply gerund and generalization in your presentation and give your friends feedback for her/his presentation. If necessary, you can add some information related to the material.

## Linear System and the Gauss's Method

Linear system

Linear system is a system which has linear variable

The combination $3x_1 + 2x_2$	They are linear.
$3x_1^2 + 2\sin(x_2)$	They are not linear.

The first example is linear because in each system of the equations involve only the first power of each variable.

Gauss's Method

Gauss's method is the fastest and easiest method to solve linear system. Gauss's method is safe to solve linear system because it never losses solution and it never picks up extraneous solution

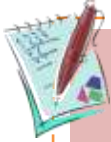
The Theorem of Gauss's Method:

If a linear system is changed to another by one of these operations

1. an equation is swapped with another
2. an equation has both sides multiplied by a nonzero constant
3. an equation is replaced by the sum of itself and a multiple of another

then the two systems have the same set of solutions

*Adapted from Linear Algebra from Jim Hefferon (2013)*

**C****Let's Do More****Task 14**

Choose one of the topics below and present it in front of the class. Use the expressions that you have been learned in the previous tasks and apply gerund and generalization in the presentation. You may use power point to help you presenting the topic. The duration of your presentation cannot be longer than 10 minutes.

**Basis in Vector Spaces**

A basis for a vector space is a sequence of vectors that is linearly independent and that spans the space.

**Dimension in Vector Spaces**

A vector space is finite-dimension if it has a basis with only finitely many vectors.

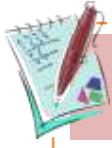
**Matrix Multiplication****Classification of Differential Equation**

Differential equation is an equation containing the derivatives of one or more dependent variables, with respect to one or more independent variables. Differential equation is classified by type, order, and linearity.

**Autonomous Equation of Differential Equation**

Autonomous equation is an equation in which the independent variables do not appear explicitly.

**Exact equation of differential equation**

**D****Let's Do Evaluation****Task 15**

Work in group of four and do the following activity.

No	How to do
1	Each member of the group should do a presentation.
2	Choose your own topic related to algebra and present it in front of the class. Use the expressions that you have been learned in the previous tasks and apply gerund and generalization in the presentation. You may use power point to help you presenting the topic. The duration of your presentation cannot be longer than 10 minutes
3	The other members should evaluate the presentation. Therefore the presentation of the entire member of the group will be evaluated. Evaluation checklist: <ul style="list-style-type: none"> <li>- Topic (is the topic related to algebra?)</li> <li>- Expressions (is the presenter using appropriate expressions in every part of her/his presentation?)</li> <li>- Does she/he apply gerund in her/his presentation? What are they?</li> <li>- Does she make any generalizations on her/his presentation? What are they? Are the generalizations valid/not? Give the reasons.</li> </ul>
4	The results of evaluation should be shared in the class.

**E****Homework****Task 16**

Do a survey to five friends who do not join the English speaking club to find out how they do their presentations and ask them whether they use expressions as you have been learned in this unit or not and then report the results of the survey in the class

# F

## Let's Make Reflections

You have learned all the tasks in this unit. Make a reflection based on yourself. Put a tick (✓) mark on the column of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for making generalizations.		
I can recognize the expression used for doing presentation.		
I can apply easily the expressions of making generalization in conversations and presentation.		
I can apply easily the expressions used for presentation in a presentation.		
I can recognize and apply gerund in a presentation.		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you have when you learn this unit here:

.....

.....

Name of being assessed: .....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						

**Making generalization**

Key words of making generalization:

*all, none, most, many, always, everyone, never, sometimes, some, usually, seldom, few, generally, in general and overall.*

A valid generalization is supported by facts, proven with several examples and uses logic and reasoning.

**Gerund**

A gerund is a verbal that ends in *-ing* and functions as a noun. It occupies some positions in a sentence such as, as a subject, as an object, a subject complement (the complement of to be), as object of prepositions (after preposition) and etc.

**Doing presentation**

A presentation usually divided into three parts which are introduction or opening part, main part and closing part. In each part you need to use different expression and jobs.

In the opening part, you introduce yourself and your topic or even do some brainstorming related to the topic. In the main part, you explain the issues that you take, while in the closing part, you give some conclusion of you have presented and some recommendation (if it is necessary).

## VOCABULARY LIST

English	Parts of speech	Pronunciation Transcription	Indonesian
<b>assign</b>	verb	/ə'saɪn/	menugaskan
<b>branch</b>	noun	/brɑːn tʃ/	cabang
<b>broad</b>	adjective	/brɔːd/	luas
<b>common</b>	adjective	/'kɒm.ən/	lazim
<b>complement</b>	noun	/'kɒm.plɪ.ment/	pelengkap
<b>correspondence</b>	noun	/'kɒr.ɪ'spɒn.dən t s/	korespondensi/ persesuaian
<b>deliver</b>	verb	/dɪ'liv.ə r /	mrnyampaikan
<b>denominator</b>	noun	/dɪ'nɒm.i.neɪ.tə r /	bilangan penyebut
<b>equation</b>	noun	/'kweɪ.ʒ ə n/	persamaan
<b>exercise</b>	noun	/'ek.sə.saɪz/	latihan
<b>extraneous</b>	adjective	/'ɪk'streɪ.ni.əs/	tak berhubungan
<b>figure out</b>	verb	/'fɪg.ə r aʊt/	menemukan
<b>instruction</b>	noun	/ɪn'strʌk.ʃ ə n/	instruksi
<b>major</b>	adjective	/'meɪ.dʒə r /	penting
<b>noise</b>	noun	/nɔɪz/	kegaduhan
<b>occurrence</b>	noun	/ə'kʌr. ə n t s/	kejadian
<b>official</b>	adjective	/ə'fɪʃ. ə l/	resmi
<b>phenomena</b>	noun	/fə'nɒm.i.nə/	kejadian/gejala
<b>quiet</b>	adjective	/'kwaɪət/	tenang
<b>review</b>	verb	/'riːvjuː/	tinjauan
<b>submit</b>	verb	/'səb'mɪt/	menyerahkan
<b>scientific</b>	adjective	/'saɪəntɪf.ɪk/	ilmiah
<b>surface</b>	noun	/'sɜː.fɪs/	permukaan
<b>theorem</b>	noun	/'θɪr.ə.m/	dalil
<b>value</b>	noun	/'væl.juː/	nilai
<b>weightlifting</b>	noun	/'weɪt.lɪf.tɪŋ/	angkat beban



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## The List of Pictures

### Cover

- Picture 1 : Taken from [www.google.com](http://www.google.com)  
Picture 2 : Taken from [www.ceist.ie](http://www.ceist.ie)  
Picture 3 : Taken from [www.marion.com](http://www.marion.com)

### Unit 1

- Picture 1.1 : Taken from [www.olnefriends.org](http://www.olnefriends.org)  
Picture 1.2 : Taken from [cjreach.wordpress.com](http://cjreach.wordpress.com)  
Picture 1.3 : Taken from [www.ppst.com](http://www.ppst.com)  
Picture 1.4 : Taken from [www.marion.com](http://www.marion.com)

### Unit 2

- Picture 2.1 : Taken from [www.google.com](http://www.google.com)  
Picture 2.2 : Taken from [www.google.com](http://www.google.com)  
Picture 2.3 : Taken from [www.google.com](http://www.google.com)  
Picture 2.4 : Taken from [www.kwisnet.com](http://www.kwisnet.com)

### Unit 3

- Picture 3.1 : Taken from [blog.loyola.edu](http://blog.loyola.edu)  
Picture 3.2 : Taken from [primarytech.global2.vic.edu](http://primarytech.global2.vic.edu)  
Picture 3.3 : Taken from [primarytech.global2.vic.edu](http://primarytech.global2.vic.edu)  
Picture 3.4 : Taken from [www.google.com](http://www.google.com)  
Picture 3.5 : Taken from [www.google.com](http://www.google.com)  
Picture 3.6 : Taken from [www.google.com](http://www.google.com)  
Picture 3.7 : Taken from [www.google.com](http://www.google.com)  
Picture 3.8 : Taken from [www.google.com](http://www.google.com)  
Picture 3.9 : Taken from [www.google.com](http://www.google.com)  
Picture 3.10 : Taken from [www.google.com](http://www.google.com)  
Picture 3.11 : Taken from [www.google.com](http://www.google.com)  
Picture 3.12 : Taken from [www.google.com](http://www.google.com)  
Picture 3.13 : Taken from [www.google.com](http://www.google.com)  
Picture 4.14 : Taken from [www.google.com](http://www.google.com)  
Picture 3.15 : Taken from [www.google.com](http://www.google.com)  
Picture 3.16 : Taken from [www.google.com](http://www.google.com)

## Appendices

### UNIT 1: Task 4

Colby and Fita are roommate. They attend the same college. They even go to the same department which is mathematics department. Now, they are studying for tomorrow's class.

Colby : Have you read some materials for the next meeting?

Fita : Yeah, a bit. But those materials are very complicated.

Colby : What about read mine? I got them from internet and they're simpler than yours.  
They explain about integer in a very simple and clear way.

Fita : I think that's a good idea. Thank you.

Colby : Anytime. I believe that studying integer will not be boring.

Fita : Really? Why?

Colby : You have read some materials about it. Don't you find it interesting?

Fita : As I see it, it's quite interesting but it will no longer interesting if this time the professor gives us abundant assignment as before.

Colby : Don't you think that you're exaggerating?

Fita : Not really.

Colby : Integer is a number that can be written without fractional or decimal component.  
I think it's quite easy and interesting though may be the professor will give quite a lot assignments.

Fita : Why are you so interested in Integer?

Colby : Because it is applicable for our daily life, that's why I like it. As you know that studying integer means dealing with negative and positive number. In our daily life those number are needed to represent physical quantities for example in temperature, altitude and the amount of money.

Fita : Can you explain it more?

Colby : No problem. For example, you can say "the altitude of death valley is 282 feet below the sea level meaning that the altitude is minus 282 feet.

Fita : I got it, so if the temperature in Chicago is 10 degree of Fahrenheit below zero meaning that the temperature is minus 10 degree of Fahrenheit?

Colby : That's right.

Fita : That's quite easy but we are not only going to study about those kinds of things right?

Colby : Of course not. I've already read it that we are going to learn how to add and subtract integer and also multiply and divide integer. What do you think?  
It's interesting, isn't it?

Fita : I'm not sure.

Colby : Are you afraid of this?

Fita : Just a little bit.

### UNIT 1: Task 8

- Ashley : Have you read the paper that the professor assigned for tomorrow class? I think it's quite interesting.
- Sinta : No. Not yet. What is it about?
- Ashley : It's about integers. There are some questions that should be solved in pairs and we are going to have group discussion tomorrow.
- Sinta : Well, to my mind, it isn't interesting at all.
- Ashley : By the way, let's study together. We need to solve all the questions.
- Sinta : All right, professor sometimes likes to give unexpected questions to his students.
- Ashley : What about dividing the questions? Each of us do five questions.
- Sinta : I believe we'll get better understanding if we discuss it together.
- Ashley : All Right, then.
- Sinta : Are decimals, fraction and percents included in integer?
- Ashley : No, Integers are whole numbers and their negative opposites.
- Sinta : Meaning that it includes positive whole numbers, negative whole numbers and zero?
- Ashley : That's right.
- Sinta : Do you know the symbol representing integer?
- Ashley : Well, I've read the materials about it before. Hmmmm...it's alphabet zi, capital zi. Zi stands for Zahlen, it's used to denote set of integers.
- Sinta : I see. It's quite easy. What do you feel?
- Ashley : I feel the same as you.
- Sinta : What issues do we have to solve on integers?
- Ashley : Not so many. It's about adding, subtracting, multiplying and dividing Integers, especially the roles of all of them.
- Sinta : There is only 15 minutes left before the next class start. Let's continue our discussion after the class ends.
- Ashley : Okay.

## UNIT 1: Task 12

<p>Flo</p> <p>You wouldn't mind if Sam or Alex gets the position. Sam is very efficient and Alex is a nice cheerful person. But you're hope that it's not Terry or Pip. Terry is very bad-tempered and Pip is hopeless at figures</p>	<p>Sam</p> <p>You wouldn't mind if Alex or Terry gets the position. Alex is a cheerful sort of person and Terry is good-natures. But you hope it's not going to be Pip or Robin. Pip is absolutely hopeless at figures and Robin is so rigid and narrow-minded.</p>
<p>Alex</p> <p>You wouldn't mind if Terry or Pip gets the position. Terry is very good-natures and kind and Pin is very careful; and precise: very good with figures. But it would be a disaster to have Robin is so narrow-minded and Jan is so careless and disorganized.</p>	<p>Terry</p> <p>You wouldn't mind if Pip and Robin gets the Job. Pip is very careful and precise: very flexible and open-minded. But it would be terrible if Jan or Chris got the positions. Jan is totally disorganized and Chris is so pompous.</p>
<p>Pip</p> <p>You wouldn't mind if Robin or Jan gets the positions. Robin is a very tolerant and flexible person. Jan is very organised. But you'd hate to have to work for Chris or Flo. Chris is so unbelievably pompous and Flo is so indecisive.</p>	<p>Robin</p> <p>You wouldn't mind if Jan and Chris gets the positions. Jan is very competent and organized and Chris is a nice, unpretentious down-to-earth sort of person. But it would be disaster if Flo or same got the position. Jo is weak and indecisive and Sam is very inefficient.</p>

## UNIT 2: Task 4

Devi and Grace are doing their homework to create quadrilateral family tree from their professor.

- Devi : Grace are you sure we are able to finish all of these this afternoon? We haven't classified the quadrilaterals yet and we have to create each shape of them precisely. You know that the professor is very thorough. He won't leave any single part.
- Grace : I know but don't worry I have got the design for creating quadrilateral family tree. Just follow the design.
- Devi : All right then, what about classify the shapes first and determine their measurements so that we will find out how many papers we need to make the family tree.
- Grace : let's do so. Shall we start right now?
- Devi : sure.
- Grace : Well, we will do with four-sided polygon so it will be simple.
- Devi : Then, let me write down the classification.
- Grace : Four-sided polygon is divided into three. They are parallelogram, kite and trapezoid. Parallelogram and trapezoid are divided again based on their types. Parallelogram has two types, rectangle and rhombus. All of them are

square. For the trapezoid, there are two types as well, right trapezoid and isosceles trapezoid.

Devi : What about kite?

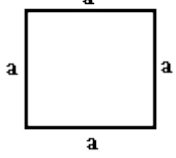
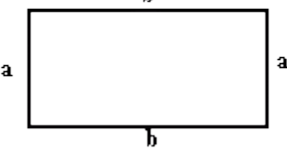
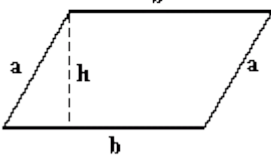
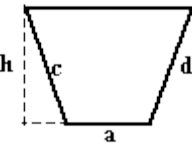
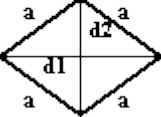
Grace : Kite is only kite. It is not mentioned in the book that kite has various types.

Devi : Then we need four different colors of papers. One for the base, the thicker paper and the rest will be for each type.

Grace : Sounds good. Lets' buy them right now. I'll get the motorcycle key in my brother's room.

Devi : Alright.

### UNIT 2: Task 7

<p style="text-align: center;"><b>Sq uare</b></p> 	<p>Square            Area : <math>a \times a</math>            Perimeter : <math>a+a+a+a</math>                          : <math>4a</math></p>
<p style="text-align: center;"><b>Rectangle</b></p> 	<p>Rectangle            Area : <math>a \times b</math>            Perimeter : <math>a + b + a + b</math>                          : <math>2(a+b)</math></p>
<p style="text-align: center;"><b>Parallelogram</b></p> 	<p>Parallelogram            Area : <math>b \times h</math>            Perimeter : <math>a+b+a+b</math>                          : <math>2(a+b)</math></p>
<p style="text-align: center;"><b>Trapezoid</b></p> 	<p>Trapezoid            Area : <math>\frac{1}{2} \times (a+b) \times h</math>            Perimeter : <math>a+b+c+d</math></p>
<p style="text-align: center;"><b>Rhombus</b></p> 	<p>Rhombus            Area : <math>\frac{1}{2} (d1 \times d2)</math>            Perimeter : <math>a+a+a+a</math>                          : <math>4a</math></p>

## UNIT 2: Task 12

### First conversation

Zeta is asking for suggestions to his brother's friend. He is seven years older than Zeta.

- George Wiggins : Hi, Zeta. Is your brother's home?  
Zeta : He's going to the supermarket with mom. He said they will be home in 10 minutes. Please, come in.  
George Wiggins : Thank you.  
Zeta : Well, my brother said that you like math.  
George Wiggins : Yeah...  
Zeta : Actually, I got assignments from my lecture. If you don't mind, would you like to help me?  
George Wiggins : Sure.  
Zeta : I find it difficult to solve this question. Could you give suggestions how to solve the question?  
George Wiggins : You know how to find area and perimeter of parallelogram, right?  
Zeta : Yeah...  
George Wiggins : First, what about find AE?  
Zeta : I've found AE. It is 5 cm but I am bit confuse about CB. Should I convert the root form?  
George : You can just write in the root form.  
Zeta : Oh I se. AD and BC are parallel so BC is 13. Well, I think I know how to solve the question now.  
George : You could change  $\sqrt{27}$  into  $3\sqrt{3}$ .  
Zeta : All right, thank you for your suggestions.  
George : Not at all.

### Second conversation

Yasmin is having a discussion with her friend about the topic that has been explained by their lecturer.

- Yasmin : I haven't understood yet about what had been explained by Mr. Holmes. I often get troubles with angles.  
Jane : I think angles in quadrilateral are quite simple. Shall we study together, now? The next class is two hours later from now.  
Yasmin : That's good idea. Let's sit at that bench.  
Jane : All right, then.  
Yasmin : Can you explain how to solve this question?  
Jane : This is trapezoid. You may add a new dot as E, then draw line from C to E. Line CE is parallel to Line DA so both of them are 12 cm. To find out EB you can subtract AB with DC, so EB is 5.  
Yasmin : Then, I can find line CB by using Pythagoras, right?  
Jane : That's right. But why don't you find the angle by using tangent of C angle so you don't have to find line CB.  
Yasmin : Oh, I see.  
Jane : Remember. The sum of angles in a triangle is 180 degree.  
Yasmin : Yeah. In the end, I can find angle B by subtracting 180 with angle E

and C.  
 Jane : That's right.  
 Yasmin : You're so clever, Jane. Thank you.  
 Jane : Any time.

### UNIT 2: Task 13

<p>Book 1          The language is complicated, so it's a bit difficult to understand the explanation but the book provides detail examples.          Price: Rp. 45,000</p>	<p>Book 2          The language is middle level. The explanation is clear but it provides less examples.          Price: Rp. 50,000</p>
<p>Book 3          The language is easy but the explanation and the examples are not detail.          Price: Rp. 42,500</p>	<p>Book 4          The language is middle level, the explanation and the examples are detail and clear.          Price: Rp. 47,500</p>

### Unit 3: Task 4

There is a student who is doing presentation about a topic in mathematics.

Morning Everyone,

I'm Irina Blacksmith. As students of mathematics Education department, we study some subjects which are related to algebra or even the subjects which belong to subtopics of algebra. Therefore, Today, I'm going to talk about algebra. In my talk, I'll focus on two main issues. First is algebra and the second is the results of my survey in figuring out my classmates' perception about algebra. My talk will be about 15 minutes. If you have questions, please save your questions for the Q&A section.

Let's move to next part. Well, what is algebra? Algebra is a branch of mathematics that uses letters in place of some unknown numbers. What's need to remember that most of the letters used in algebra have two functions. First is as variable in which the value of the letter can change. The second is the letters that stand as constants where the value does not change.

I've read some articles about the history of algebra and I'll tell the result of my reading that at first, algebra is similar to arithmetic in which, as I mentioned before, letters are used to replace numbers. However, as it is developed, algebra extends to non-numerical object such as linear algebra and abstract algebra. Those two branches of algebra are the topics that students usually learn in college.

I'm sure that most of the students here have been familiar with algebra because many of us have studied algebra, unconsciously, since we were in senior high school.

We, right now, are studying linear algebra and later on we are going to study abstract algebra. While studying linear algebra I see phenomena on our classroom that many of students included me find this topic as quite difficult topic. What usually happens when students find a difficult topic is they study it diligently or they feel unmotivated in studying it. What happens to us is 50:50. You can have a look at this chart that fifty percent



of the students study it diligently and practice them again and again. On the other hand, another fifty percent of them tend to avoid the topic. They don't feel motivated on studying it. I gathered some comments from them and they said "another day passed and I didn't use algebra once", "linear algebra is like weightlifting for my brain" and etc. Moreover, I found a note of one of them that "Algebra please stop ask me to find x because she will never come back". That's quite funny note, isn't that?

Friends, well, that brings me to the end of my presentation.

Generally speaking, Algebra is very broad topic in mathematics. It is a branch of mathematics which uses letters to substitute unknown numbers and algebra has some subtopics. And talking about the phenomena in this classroom, many of our friends find linear algebra as difficult subject but there are two patterns of them in facing the topic which are they diligently study the topic and some of them complain a lot in studying the topic.

So, for those who find it difficult in studying linear algebra, I recommend you to join Study Club, because in the study club we share, discuss and solve together our difficulties in learning mathematics. Moreover, it's so much fun to study together.

Thank you very much.

**DESCRIPTIONS OF UNIT 1, 2 AND 3 OF THE FIRST DRAFT  
OF DEVELOPED SPEAKING LEARNING MATERIALS**

**The Description of Unit 1**

<b>UNIT 1</b>	
Title: In my opinion, integer is an interesting topic. This unit encourages the students to study how to ask for opinions and give opinions in conversations while discussing integer and study adjectives.	
<b>A. Let's Get Started</b> As an introduction part, it contains two tasks which serve as prompter to introduce the topic and language functions that are going to learn.	
Task 1	Instruction: Study the following picture and answer the questions
	Description: This task is designed to introduce language functions that are going to learn in the unit. The task contains a picture to illustrate the activity that they will have in the unit. A situation is given which represents the activity in the picture and four comprehension questions are provided to dig up the students' knowledge about the language functions that are going to learn and to introduce the language function as well.
Task 2	Instruction: Below is a mind map of integers. Think about integers and write the things that you usually learn in integers on the chart.
	Description: This task is designed to prompt and brainstorm the students' knowledge about the topic that is going to discuss in the unit. The mind map contains six boxes in which the students are asked to complete the boxes with the things related to the topic. A picture is provided in the mind map in order to give overview of the topic.
<b>B. Let's Take Action</b> This part contains a number of tasks in which the tasks are provided in order to achieve the learning objectives.	
Task 3	Instruction: Below are some adjectives and adverbs that you are going to find in Task 4. Complete the table and then pronounce the English words, Do it in pairs and ask your partner to check your pronunciation.
	Description: This task is designed to scaffold the students for the listening task in the next task and to develop students' pronunciation. The students are

	asked to complete the table by referring to the provided words and practice to pronounce the provided words.
Task 4	<p><b>Instruction:</b> You will listen to a conversation containing some expressions of asking and giving opinions about something. Listen carefully and take notes for important information, then answer the following questions according to the conversation.</p>
	<p><b>Description:</b> This task is designed to give listening practice for the students. In this task the students are introduced with some of expressions in asking and giving opinions in a conversation about integer. There are ten comprehension questions and the students are asked to answer the questions after listening to the conversation in order to check students' understanding of the conversation.</p>
Task 5	<p><b>Instruction:</b> Study the following explanation with your partner.</p>
	<p><b>Description:</b> This task is designed to give explanation of expressions of asking and giving opinions. The students are asked to study the explanation of expressions of asking for and giving opinions with their partners. The explanation covers expressions of asking and giving opinions in particular situations and level of formality.</p>
Task 6	<p><b>Instruction:</b> Study the following dialogue in pairs and identify the expressions of asking and giving opinions and the level of formality then practice the dialogue with your partner.</p>
	<p><b>Description:</b> This task is designed to check the students' understanding of expressions of asking and giving opinions and give the students opportunity to practice speaking by practicing the dialogue which contain expressions of asking and giving opinions. In this task, the students are asked to identify the expressions of asking and giving opinions and the level of formality of the expressions.</p>
Task 7	<p><b>Instruction:</b> You will be given a conversation of two students talking about integers with some blank spaces. Complete the blanks using expressions of asking and giving opinions in the left box and adjectives and adverbs in the right box, then act it out with your partner.</p>
	<p><b>Description:</b> This task is a guided task. It is designed to give opportunity to the students to use expressions of asking and giving opinions in a conversation, practice speaking and study some vocabulary. The students are asked to complete the blank spaces in the conversation with the expressions of asking and giving opinions and some</p>

	expressions of asking and giving opinions and adjectives and adverbs in the boxes and practice the conversation with their partners.
Task 8	<p>Instruction: Let's Play Survey Game</p> <p>Interview 5 or your friends. Ask their opinions about integer and their reasons of having such opinions. The words in bracket will help your friends in giving their opinions about integer. You have to fill the table below and then share it to your friends in front of the class.</p>
	<p>Description:</p> <p>This task is designed to provide game for applying expressions of asking and giving opinions about integer in conversation. The students are asked to interview five of their friends in order to find out their opinions about integer and their reasons and share the results in the classroom.</p>
Task 9	<p>Instruction:</p> <p>Complete the following situations with expressions in Task 5 or any other responses and then identify the relationship of the speakers and the level of formality. Using the completed situation, practice them with your partner. Number one has been done for you.</p>
	<p>Description:</p> <p>This is semi-guided task. This task is designed to provide speaking activity in which the students can apply the expressions of asking and giving opinions in the conversations and to check students understanding of the use of such expressions in different level of formality. Before practice the conversations, the students are asked to complete the conversations with the expressions of asking and giving opinions or other responses based on the level of formality of the situation.</p>
Task 10	<p>Instruction:</p> <p>Study the following explanation with your partner.</p>
	<p>Description:</p> <p>This task is designed to provide explanation of adjectives such as the formation of adjectives and the positions of adjectives. The students are asked to study the explanation in pairs.</p>
Task 11	<p>Instruction:</p> <p>After studying adjectives in the previous task, restate the following sentences using correct adjectival forms. Discuss with your partner and share your discussion with your friends orally.</p>
	<p>Description:</p> <p>This task is designed to check the students' understanding about adjectives. The students are asked to restate some statements using correct adjectival form and share with their friends.</p>
Task 12	<p>Instruction: Let's Play Game</p> <p>You will be given a game on asking and giving opinions. Study the game's rules and play the game based on the rules with your classmates. Do some rehearsal before playing the game.</p>
	<p>Description:</p>

	<p>This task is designed to provide a game for students to apply expressions of asking and giving opinions and adjectives. This task also aims to develop students' vocabulary mastery of adjectives. In this task the students meet some adjectives which are new for them.</p>
<p><b>C. Let's Do More</b> This part consists of one task to apply what the students have learned in the previous tasks.</p>	
Task 13	<p><b>Instruction:</b> You will be given some situations. Choose one of the situations and create a dialogue talking about integers and use the expressions of asking and giving opinions that you have learned in the previous tasks, then acting out the dialogue with your partner in front of the class. The dialogue should be 200-250 words long.</p>
	<p><b>Description:</b> This task is designed to provide the students to practice speaking using the expressions of asking and giving opinions that they have learned in the previous task, adjectives and the provided topic. There are 5 topics in which the students are asked to perform a dialogue using one of the topics</p>
<p><b>D. Let's Do Evaluation</b> The evaluation task is intended to evaluate the students about what they have learned in the unit.</p>	
Task 14	<p><b>Instruction:</b> From the subtopics you have brainstormed in Task 2, choose one of the subtopics and do a role play with your partner in front of the class using the expressions of asking and giving opinions about one of the subtopics you have chosen.</p>
	<p><b>Description:</b> This task is designed to evaluate the students about what they have learned in the unit. The students are asked to do role play using the expressions and adjectives that they have learned. The students are not provided with any scaffolding. They have to use the topic that they have brainstormed in Task 2.</p>
<p><b>E. Homework</b> Homework task is real-world task in which the students have to apply what they have learned in the classroom outside the classroom.</p>	
Task 15	<p><b>Instruction:</b> Interview three of your friends in the same department. You are allowed to interview the upper semester or the lower semester. Ask their opinions about the advantages and disadvantages of studying integers. Then report your interview results in the class.</p>
	<p><b>Description:</b> This task is designed to provide real-world task for the students. They are asked to do interview of three of their friends in the same department which is Mathematics department about the advantages and disadvantages of studying integers. By doing this task, the</p>

	students can apply what they have learned inside the class outside the class.
F. Let's Make Reflections This part aims to provide self-assessment and peer-assessment for the students so that they are able to measure their ability after learning the unit.	
G. Summary This part is intended to provide the students, the summary of language functions and grammar that they have learned in the unit.	
H. Vocabulary List The vocabulary list aims to give the students review of vocabulary that they have met in the unit. The vocabulary list covers the English words, parts of speech, pronunciation transcription, and Indonesian equivalent.	

### The Description of Unit 2

UNIT 2 Title: We could find articles on quadrilaterals in the library. This unit encourages the students to study the expressions of asking and giving suggestions using quadrilaterals as the topic and to study modals.	
A. Let's Get Started As an introduction part, it contains two tasks which serve as prompter to introduce the topic and language functions that are going to learn.	
Task 1	Instruction: Study the following picture and answer the questions.
	Description: This task is designed to introduce language functions that are going to learn in the unit. The task contains a picture to create situation for the comprehensive questions. There are six comprehension questions to lead the students to the expressions that are going to learn in the unit. This task also aims to dig up the students' knowledge about the language functions that are going to learn in this unit.
Task 2	Instruction: Below is a mind map of quadrilaterals. Think about quadrilaterals and write the things that you usually learn in quadrilaterals on the chart.
	Description: This task is designed to prompt and brainstorm the students' knowledge about the topic that is going to discuss in the unit. The mind map contains four boxes in which the students are asked to complete the boxes with the things related to the topic. A picture is provided in the mind map in order to give overview of the topic.
B. Let's Take Action This part contains a number of tasks in which the tasks are provided in order to achieve the learning objectives.	
Task 3	Instruction: Below are some verbs and nouns that you are going to find in Task 4. Complete the table and then pronounce the English words. Do it in

	<p>pairs and ask your partner to check your pronunciation.</p> <p>Description: This task is designed to scaffold the students for the listening task in the next task and to develop students' pronunciation. The students are asked to complete the table by referring to the provided words and practice to pronounce the English words in the table.</p>
Task 4	<p>Instruction: You will listen to a conversation containing some expressions of asking for something. Listen carefully and take notes for important information, then tell orally the main point of the conversation to your partner. Ask your partner to tell back to you and compare whether you and your partner have the same understanding or not. The words below will help you in telling the main point of the conversation.</p> <p>Description: This task is designed to give listening practice and speaking practice for the students. In this task the students are introduced with expression of asking for suggestions in a conversation by using quadrilateral as the topic. The speaking practice which is telling the main point of the conversation is intended to check students understanding about the content of the conversation.</p>
Task 5	<p>Instruction: Study the following explanation with your partner.</p> <p>Description: This task is designed to give explanations of expressions of asking for suggestions. The students are asked to study the explanation of expressions of asking for suggestions with their partners. The explanation covers expressions of asking for suggestions and level of formality of the expressions.</p>
Task 6	<p>Instruction: Below are two conversations talking quadrilateral with different level of formality. Complete the blanks parts in each conversation using the appropriate expressions of asking for suggestions or any other responses in the brackets, then act them out with your partner.</p> <p>Description: This task is guided speaking task. This task is designed to check students' understanding after they are given explanation of the expressions of asking for suggestions and to develop the students' vocabulary mastery. The students are provided with the conversation with different level of formality in which each of the conversations has some blanks parts and the students are asked to complete the conversations using phrases or words in the brackets, then acting out the conversations with their partner.</p>
Task 7	<p>Instruction: Let's Play a Game Play information-gap game below based on the card you are going to receive.</p> <p>Description:</p>

	<p>This task is designed to provide game for applying expressions of asking for suggestions about quadrilaterals. The students are given scaffolding by the cards. In this game, the students are asked to find their friends which have the same card with hers/his and ask for suggestions to solve the questions written on the cards by using the expressions of asking for suggestions.</p>
Task 8	<p>Instruction: Study the following explanation with your partner.</p>
	<p>Description: This task is designed to give explanations about modals. The explanation covers modals, the use of modals and the examples of the application of modals.</p>
Task 9	<p>Instruction: You will be given a conversation between two students containing some modals auxiliaries. Analyze the modal auxiliaries used by the speakers with your partner whether the modals are used to express obligation or necessity and give your reasons, after that share your analysis orally with your classmates.</p>
	<p>Description: This task is designed to check the students' understanding after studying the explanations of modals in the previous task. The students are asked to analyze the modal auxiliaries and their usage in the conversation and justify their answer by giving reasons and after that they are asked to share orally their analyses to their classmates.</p>
Task 10	<p>Study the following conversation in pairs and answer the questions based on the conversation.</p>
	<p>Description: This task is designed to introduce the expressions of giving suggestions. The students are provided with a conversation of two people talking about quadrilateral in which the speakers in the conversation use the expressions of asking and giving suggestions. There are five comprehension questions in this task which aim to check the students understanding of the conversation. After studying the conversation, the students are asked to answer the questions based on the conversation.</p>
Task 11	<p>Instruction: Study the following explanation with your partner.</p>
	<p>Description: This task is designed to give explanations of expressions of giving suggestions. The explanation covers some expressions of giving suggestions and the examples of them in sentences. The students are asked to study the explanation with their partners.</p>
Task 12	<p>Instruction: You will be given some conversations talking about quadrilaterals with some blank parts. Identify the level of formality of the conversation and complete the blank parts with your own words or</p>



	<p>the appropriate expressions of asking and giving suggestions, then act them out with your partner.</p> <p>Description: This is semi-guided speaking task. This task is designed provide speaking activity for the students. In this task the students are asked to complete the conversations with the expressions of asking and giving suggestions based on the level of formality of the conversations and then acting out the conversations with their partners. This task also serves the students to develop their vocabulary mastery through finding the right words for filling in the blank parts in the conversations by considering the context in the conversations.</p>
Task 13	<p>Instruction: Let's Play a Game Play the game according to the following guideline. Use the expressions of asking and giving suggestions that you have learned in the previous tasks.</p> <p>Description: This task is designed to provide game for the students in order to apply the expressions that have learned in this unit in fun way. The students are asked to do the game based on the cards that they are going to receive and the guideline in doing the game.</p>
<p>C. Let's Do More This part consists of one task to apply what the students have learned in the previous tasks.</p>	
Task 14	<p>Instruction: You will be given some situations. Choose one of the situations and create dialogue talking about quadrilaterals and use the expressions of asking and giving suggestions that you have learned in the previous tasks, then acting out the dialogue with your partner in front of the class.</p> <p>Description: This task is designed to provide the students to practice speaking using the expressions of asking and giving suggestions that they have learned in the previous task, adjectives and the provided topic. There are 4 situations in which the students are asked to perform a dialogue using one of the situations in front of the class.</p>
<p>D. Let's Do Evaluation The evaluation task is intended to evaluate the students about what they have learned in the unit.</p>	
Task 15	<p>Instruction: From the subtopics that you have brainstormed in Task 2. Choose one of the subtopics and do role play with your partner in front of the class using expressions of asking and giving suggestions about the subtopic that you choose.</p> <p>Description: This task is designed to evaluate the students about what they have</p>

	learned in the unit. The students are asked to do role play using the expressions and modals that they have learned. The students are not provided with any scaffolding. They have to use the topic that they have brainstormed in Task 2.
E. Homework Homework task is real-world task in which the students have to apply what they have learned in the classroom outside the classroom.	
Task 16	Instruction: Interview three of your friends in the same department. You are allowed to interview the upper semester or the lower semester. Ask their suggestions of how to learn quadrilateral easily. Then, report your interview results in the class.
	Description: This task is designed to provide real-world task for the students. They are asked to do interview of three of their friends in the same department which is Mathematics department about how to learn quadrilaterals easily. By doing this task, the students can apply what they have learned inside the class outside the class.
F. Let's Make Reflections This part aims to provide self-assessment and peer assessment for the students so that they are able to measure their ability after learning the unit.	
G. Summary This part is intended to provide the students, the summary of language functions and grammar that they have learned in the unit.	
H. Vocabulary List The vocabulary list aims to give the students review of vocabulary that they have met in the unit. The vocabulary list covers the English words, parts of speech, pronunciation transcription, and Indonesian equivalent.	

### The Description of Unit 3

UNIT 3 Title: What I'd Like to Present to You Today is Linear Algebra. This unit encourages the students to study the useful expressions for doing presentation, making generalizations and gerunds. The topic of this unit is algebra.	
A. Let's Get Started As an introduction part, it contains two tasks which serve as prompter to introduce the topic and language functions that are going to learn.	
Task 1	Instruction: Study the following picture and answer the questions.
	Description: This task is designed to introduce language functions that are going to learn in the unit. The task contains a picture to illustrate the activity

	that they will have in the unit. Balloons containing some expressions used in presentation are used to introduce the language functions. Five comprehension questions are provided to dig up the students' knowledge about the language functions that are going to learn
Task 2	Instruction: Algebra is a very broad part of mathematics. Write sub-topics of algebra that you have learned or you are going to learn in the available boxes.
	Description: This task is designed to prompt and brainstorm the students' knowledge about the topic that is going to discuss in the unit. The students are asked to complete five boxes with sub-topics of algebra. A picture is provided in order to give overview of the topic.
B. Lets' Take Action This part contains a number of tasks in which the tasks are provided in order to achieve the learning objectives.	
Task 3	Instruction: Below are some nouns that you are going to find in Task 4. Complete the table and then try to pronounce the English Words. Do it in pairs and ask your partner to check your pronunciation.
	Description: This task is designed to scaffold the students for the listening task in the next task and to develop students' pronunciation. The students are asked to complete the table by referring to the provided words and practice to pronounce the English words in the table.
Task 4	Instruction: Listen to the monologue of a student doing presentation and answer the following questions. And share your answer with your friends.
	Description: This task is designed to give listening practice. In this task the students are introduced with useful expression for presentation and part of presentation by using algebra as the topic. There are eight comprehension questions which aim to check the students' understanding about the content of the conversations.
Task 5	Instruction: Study the following explanation with your partner.
	Description: This task aims to provide explanation about part of presentations and the expressions used in each of the parts.
Task 6	Instruction: Below is presentation script about sub-topic of algebra with some blank spaces. Complete the blanks with the expressions in Task 4, then act out the script. Ask your partner to check your pronunciation and gestures.

	<p>Description: This is guided speaking task. This task aims to provide speaking activity for the students and to check students' understanding about the explanation that has been given in the previous task. In this task, the students are asked to apply the expressions that they have learned in the previous task in a presentation.</p>
Task 7	<p>Instruction: Study the following sentences and the underlined words. Answer the questions based on the sentences in the box with your partner.</p>
	<p>Description: This task is to introduce gerund to the students. The students are provided with three sentences containing gerund in which the gerunds are underlined. Five comprehension questions are provided to check the students' knowledge about gerund.</p>
Task 8	<p>Instruction: Study the following explanation with your partner.</p>
	<p>Description: This task is intended to provide explanation about gerunds. The explanation covers the definition of gerund, the form of gerund, the position of gerund and the examples of gerunds in sentences based on their positions.</p>
Task 9	<p>Instruction: Identify the mistakes on the second speaker's lines and correct the words by changing them into gerund and then identify the positions of them based on what you have learned about gerund in the previous task. After that, practice the conversation with your partner.</p>
	<p>Description: This task is designed to check students' understanding after they are given explanation about gerund. The students are provided with some very short conversations and they are asked to identify the mistakes in the second speaker by changing the mistakes (words) into gerund. Then the students are asked to do the conversations with their partners.</p>
Task 10	<p>Instruction: Study the following statements and answer the questions. You are allowed to have discussions with your friends in answering the questions.</p>
	<p>Description: This task is to introduce expressions of making generalization to the students. The students are provided with two statements containing expressions of making generalization in which the expressions are underlined. Five comprehension questions are provided to check the students' knowledge about the expressions of making generalization.</p>
Task 11	<p>Instruction: Study the following explanation with your partner.</p>

	<p><b>Description:</b> This task aims to provide explanation about part of making generalizations. The students are asked to study the explanation of expressions of making generalization with their partners. The explanation covers expressions of making generalization, the usage and level of formality of the expressions. The students are also given explanation of how to make valid generalizations.</p>
Task 12	<p><b>Instruction:</b> Study the following situations. Make a generalization for each situation orally using the expressions that you have learned in the previous task and ask your partner to check whether your generalizations are valid or not. Situation A has been done for you.</p> <p><b>Description:</b> This is guided speaking task. This task aims to check students' understanding about the explanation that has been given in the previous task. In this task, the students are asked to create a generalization orally based on the situations in the boxes.</p>
Task 13	<p><b>Instruction:</b> Below is the material for presentation. Make a group of three and each of members should do presentation with the material and using the appropriate expressions that you have learned in the previous tasks. Apply gerund and generalization in your presentation and give your friends feedback for her/his presentation. If necessary, you can add some information related to the material.</p> <p><b>Description:</b> This task is semi-guided speaking task. It serves as speaking task in which provide speaking activity for students to apply what they have learned in the previous tasks. The students are provided with materials for doing presentation.</p>
<p><b>C. Let's Do More</b> This part consists of one task to apply what the students have learned in the previous tasks.</p>	
Task 14	<p><b>Instruction:</b> Choose one of the topics below and present it in front of the class. Use the expressions that you have learned in the previous tasks and apply gerund and generalization in the presentation. You may use power point to help you presenting the topic. The duration of your presentation cannot be no longer that 10 minutes.</p> <p><b>Description:</b> This task is designed to provide speaking activity for the students. In this task, the students are given less scaffolding. They have to do presentation using one of the provided topics. The students are required to apply the expressions that they have learned in the unit.</p>
<p><b>D. Let's Do Evaluation</b> The evaluation task is intended to evaluate the students about what they have learned in the unit.</p>	

Task 15	<p>Instruction: Work in group of four and do the following activity.</p>
	<p>Description: This task is designed to evaluate the students about what they have learned in the unit. The students are asked to do the task in group based on the requirement written in the table.</p>
<p>E. Homework Homework task is real-world task in which the students have to apply what they have learned in the classroom outside the classroom</p>	
Task 16	<p>Instruction: Do a survey to friends who do not join the English speaking club to find out how they do their presentations and ask them whether they use the expressions as you have learned in this unit or not and then report the results of the survey in the class.</p>
	<p>Description: This task is designed to provide real-world task for the students. They are asked to survey five friends who do not join the speaking club and ask them whether they do their presentation using the expressions that the students in the speaking club or not. The result of the interview should be reported in the class.</p>
<p>F. Let's Make Reflections This part aims to provide self-assessment and peer-assessment for the students so that they are able to measure their ability after learning the unit.</p>	
<p>G. Summary This part is intended to provide the students, the summary of language functions and grammar that they have learned in the unit.</p>	
<p>H. Vocabulary List The vocabulary list aims to give the students review of vocabulary that they have met in the unit. The vocabulary list covers the English words, parts of speech, pronunciation transcription, and Indonesian equivalent.</p>	

**LEMBAR EVALUASI MATERI PEMBELAJARAN BAHASA INGGRIS  
(EXPERT JUDGEMENT)**

**UNIT 1**

**(IN MY OPINION, INTEGER IS AN INTERESTING TOPIC)**

Sehubungan dengan dilaksanakannya penelitian untuk pengembangan materi belajar Bahasa Inggris untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika, saya mengharapkan kesediaan Bapak/Ibu untuk meluangkan waktu mengisi kuesioner ini.

Kuesioner ini bertujuan untuk mengevaluasi materi belajar Bahasa Inggris yang saya kembangkan untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika semester IV dalam konteks akademik.

**A. Identitas Responden**

Nama : .....

Jenis Kelamin : L / P (*lingkari yang sesuai*)

Pekerjaan : .....

Pendidikan : .....

**B. Petunjuk Pengisian**

Isilah lembar evaluasi ini dengan memberi tanda centang (✓) pada kolom **SS** (Sangat Setuju), **S** (Setuju), **TS** (Tidak Setuju), atau **STS** (Sangat Tidak Setuju) pada masing-masing pernyataan sesuai dengan pendapat Bapak/ Ibu.

Peneliti,  
Mahasiswa Jurusan Pendidikan  
Bahasa Inggris UNY

Titi Nawangsari  
NIM. 09202241053

### 1. Kelayakan Isi

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
1	Materi yang dikembangkan sesuai dengan kebutuhan Bahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV.				
2	Materi yang dikembangkan sesuai dengan konteks akademik mahasiswa Pendidikan Matematika Program International semester IV.				
3	Materi yang dikembangkan berisi teks yang sesuai dengan kebutuhan mahasiswa Pendidikan Matematika Program International semester IV				
4	Materi yang dikembangkan berisi ekspresi ( <i>language function</i> ) yang sesuai dengan kebutuhan akademik mahasiswa Pendidikan Matematika Program International semester IV.				
5	Input (dialog atau monolog) pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
6	Gambar pada materi yang dikembangkan sesuai dengan topik dibahas.				
7	Tabel pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
8	Materi yang dikembangkan mendorong mahasiswa untuk dapat melakukan komunikasi interpersonal dan transaksional.				
9	Materi yang dikembangkan mendorong siswa untuk dapat memahami struktur makna dan fitur linguistik pada teks yang dibahas.				
10	Materi yang dikembangkan mengarahkan mahasiswa untuk dapat berkomunikasi dengan kualitas bahasa yang akurat dan berterima sesuai dengan konteks komunikatif yang berlangsung.				



11	Materi yang dikembangkan memotivasi mahasiswa untuk mengembangkan kecakapan hidup secara personal, sosial dan akademik.				
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Saran dan tanggapan untuk perbaikan:

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## 2. Kelayakan Bahasa

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
12	Bahasa yang digunakan sesuai dengan tingkat kemampuan berbahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV				
13	Perintah (instruksi) dan penjelasan dalam materi yang dikembangkan dapat dimengerti oleh mahasiswa Pendidikan Matematika Program International semester IV.				
14	Bahasa yang digunakan sesuai dengan aturan grammatikal dalam Bahasa Inggris.				
15	Ejaan ( <i>spelling</i> ) yang digunakan sesuai dengan kaidah Bahasa Inggris yang benar.				
16	Pemilihan kosakata pada materi sesuai dengan kaidah dalam Bahasa Inggris.				
17	Pesan atau informasi yang disajikan mencerminkan keruntutan makna dalam satu bagian (kalimat atau paragraf).				
18	Pesan atau informasi yang disajikan mencerminkan keruntutan makna antar bagian (kalimat atau paragraph).				

Saran dan tanggapan untuk perbaikan:

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### 3. Kelayakan Penyajian

No	Pernyataan	SS	S	TS	STS
19	Aktivitas ( <i>task</i> ) diurutkan dari yang paling mudah ke aktivitas ( <i>task</i> ) yang paling sulit.				
20	Jumlah aktivitas ( <i>task</i> ) seimbang atau hampir sama pada setiap unitnya.				
21	Aktivitas ( <i>task</i> ) terpusat pada siswa.				
22	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk berpartisipasi aktif dalam kelas.				
23	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk melakukan komunikasi lisan secara efektif.				
24	Aktivitas ( <i>task</i> ) yang diberikan membantu memunculkan kreativitas mahasiswa dalam proses belajar.				
25	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk bertanggung jawab atas proses belajarnya sendiri.				
26	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk mengenali keberhasilan dan kekurangan siswa dalam kegiatan belajar dan berkomunikasi.				
27	Penyajian aktivitas ( <i>task</i> ) mencakup evaluasi untuk mengukur tingkat pemahaman mahasiswa terhadap materi yang sudah dipelajari.				
28	Aktivitas ( <i>task</i> ) yang diberikan memuat kosakata yang berhubungan dengan topik pada unit.				
29	Aktivitas ( <i>task</i> ) yang diberikan terdiri dari aktivitas terdampingi ( <i>guided activities</i> ) dan aktivitas tidak terdampingi ( <i>free guided activities</i> ).				
30	Setiap unit terdiri dari aktivitas pembuka ( <i>opening</i>				

	<i>activities</i> ).				
31	Setiap unit terdiri dari aktivitas utama ( <i>main activities</i> ).				
32	Setiap unit terdiri dari aktivitas penutup ( <i>closing activity</i> ).				

Saran dan tanggapan untuk perbaikan:

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#### 4. Kelayakan Kegrafikan

No	Pernyataan	SS	S	TS	STS
33	Desain buku ini menggunakan unsur tata letak (judul bab, sub judul, angka halaman, ilustrasi, keterangan gambar dll) yang baik.				
34	Huruf yang digunakan tidak terlalu beragam.				
35	Ukuran huruf dapat terbaca dengan mudah.				
36	Warna yang digunakan pada materi yang dikembangkan tidak mengganggu penyampaian informasi.				
37	Gambar yang disediakan memenuhi tujuan estetik.				
38	Gambar yang disediakan memenuhi tujuan fungsional.				

Saran dan tanggapan untuk perbaikan:

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REKOMENDASI

Mengacu pada hasil penilaian diatas, maka dengan ini unit 1 dinyatakan:

- Layak tanpa revisi
- Tidak layak
- Layak dengan revisi sebagai berikut:

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Yogyakarta,.....2014  
Evaluator,

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NIP.

**LEMBAR EVALUASI MATERI PEMBELAJARAN BAHASA INGGRIS  
(EXPERT JUDGEMENT)**

**UNIT 2**

**(WE COULD FIND ARTICLES OF QUADRILATERALS IN THE LIBRARY)**

Sehubungan dengan dilaksanakannya penelitian untuk pengembangan materi belajar Bahasa Inggris untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika, saya mengharapkan kesediaan Bapak/Ibu untuk meluangkan waktu mengisi kuesioner ini.

Kuesioner ini bertujuan untuk mengevaluasi materi belajar Bahasa Inggris yang saya kembangkan untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika semester IV dalam konteks akademik.

**A. Identitas Responden**

Nama : .....

Jenis Kelamin : L / P (*lingkari yang sesuai*)

Pekerjaan : .....

Pendidikan : .....

**B. Petunjuk Pengisian**

Isilah lembar evaluasi ini dengan memberi tanda centang (✓) pada kolom **SS** (Sangat Setuju), **S** (Setuju), **TS** (Tidak Setuju), atau **STS** (Sangat Tidak Setuju) pada masing-masing pernyataan sesuai dengan pendapat Bapak/ Ibu.

Peneliti,  
Mahasiswa Jurusan Pendidikan  
Bahasa Inggris UNY

Titi Nawangsari  
NIM. 09202241053

### 1. Kelayakan Isi

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
1	Materi yang dikembangkan sesuai dengan kebutuhan Bahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV.				
2	Materi yang dikembangkan sesuai dengan konteks akademik mahasiswa Pendidikan Matematika Program International semester IV.				
3	Materi yang dikembangkan berisi teks yang sesuai dengan kebutuhan mahasiswa Pendidikan Matematika Program International semester IV				
4	Materi yang dikembangkan berisi ekspresi ( <i>language function</i> ) yang sesuai dengan kebutuhan akademik mahasiswa Pendidikan Matematika Program International semester IV.				
5	Input (dialog atau monolog) pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
6	Gambar pada materi yang dikembangkan sesuai dengan topik dibahas.				
7	Tabel pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
8	Materi yang dikembangkan mendorong mahasiswa untuk dapat melakukan komunikasi interpersonal dan transaksional.				
9	Materi yang dikembangkan mendorong siswa untuk dapat memahami struktur makna dan fitur linguistik pada teks yang dibahas.				
10	Materi yang dikembangkan mengarahkan mahasiswa untuk dapat berkomunikasi dengan kualitas bahasa yang akurat dan berterima sesuai dengan konteks komunikatif yang berlangsung.				

11	Materi yang dikembangkan memotivasi mahasiswa untuk mengembangkan kecakapan hidup secara personal, sosial dan akademik.				
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Saran dan tanggapan untuk perbaikan:

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## 2. Kelayakan Bahasa

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
12	Bahasa yang digunakan sesuai dengan tingkat kemampuan berbahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV				
13	Perintah (instruksi) dan penjelasan dalam materi yang dikembangkan dapat dimengerti oleh mahasiswa Pendidikan Matematika Program International semester IV.				
14	Bahasa yang digunakan sesuai dengan aturan grammatikal dalam Bahasa Inggris.				
15	Ejaan ( <i>spelling</i> ) yang digunakan sesuai dengan kaidah Bahasa Inggris yang benar.				
16	Pemilihan kosakata pada materi sesuai dengan kaidah dalam Bahasa Inggris.				
17	Pesan atau informasi yang disajikan mencerminkan keruntutan makna dalam satu bagian (kalimat atau paragraf).				
18	Pesan atau informasi yang disajikan mencerminkan keruntutan makna antar bagian (kalimat atau paragraph).				

Saran dan tanggapan untuk perbaikan:

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### 3. Kelayakan Penyajian

No	Pernyataan	SS	S	TS	STS
19	Aktivitas ( <i>task</i> ) diurutkan dari yang paling mudah ke aktivitas ( <i>task</i> ) yang paling sulit.				
20	Jumlah aktivitas ( <i>task</i> ) seimbang atau hampir sama pada setiap unitnya.				
21	Aktivitas ( <i>task</i> ) terpusat pada siswa.				
22	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk berpartisipasi aktif dalam kelas.				
23	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk melakukan komunikasi lisan secara efektif.				
24	Aktivitas ( <i>task</i> ) yang diberikan membantu memunculkan kreativitas mahasiswa dalam proses belajar.				
25	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk bertanggung jawab atas proses belajarnya sendiri.				
26	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk mengenali keberhasilan dan kekurangan siswa dalam kegiatan belajar dan berkomunikasi.				
27	Penyajian aktivitas ( <i>task</i> ) mencakup evaluasi untuk mengukur tingkat pemahaman mahasiswa terhadap materi yang sudah dipelajari.				
28	Aktivitas ( <i>task</i> ) yang diberikan memuat kosakata yang berhubungan dengan topik pada unit.				
29	Aktivitas ( <i>task</i> ) yang diberikan terdiri dari aktivitas terdampingi ( <i>guided activities</i> ) dan aktivitas tidak terdampingi ( <i>free guided activities</i> ).				
30	Setiap unit terdiri dari aktivitas pembuka ( <i>opening activities</i> ).				

31	Setiap unit terdiri dari aktivitas utama ( <i>main activities</i> ).				
32	Setiap unit terdiri dari aktivitas penutup ( <i>closing activity</i> ).				

Saran dan tanggapan untuk perbaikan:

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#### 4. Kelayakan Kegrafikan

No	Pernyataan	SS	S	TS	STS
33	Desain buku ini menggunakan unsur tata letak (judul bab, sub judul, angka halaman, ilustrasi, keterangan gambar dll) yang baik.				
34	Huruf yang digunakan tidak terlalu beragam.				
35	Ukuran huruf dapat terbaca dengan mudah.				
36	Warna yang digunakan pada materi yang dikembangkan tidak mengganggu penyampaian informasi.				
37	Gambar yang disediakan memenuhi tujuan estetik.				
38	Gambar yang disediakan memenuhi tujuan fungsional.				

Saran dan tanggapan untuk perbaikan:

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**LEMBAR EVALUASI MATERI PEMBELAJARAN BAHASA INGGRIS  
(EXPERT JUDGEMENT)**

**UNIT 3**

**(WHAT I'D LIKE TO PRESENT TO YOU TODAY IS LINEAR ALGEBRA)**

Sehubungan dengan dilaksanakannya penelitian untuk pengembangan materi belajar Bahasa Inggris untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika, saya mengharapkan kesediaan Bapak/Ibu untuk meluangkan waktu mengisi kuesioner ini.

Kuesioner ini bertujuan untuk mengevaluasi materi belajar Bahasa Inggris yang saya kembangkan untuk kegiatan English Speaking Club untuk mahasiswa Program Studi International Pendidikan Matematika semester IV dalam konteks akademik.

**A. Identitas Responden**

Nama : .....

Jenis Kelamin : L / P (*lingkari yang sesuai*)

Pekerjaan : .....

Pendidikan : .....

**B. Petunjuk Pengisian**

Isilah lembar evaluasi ini dengan memberi tanda centang (✓) pada kolom **SS** (Sangat Setuju), **S** (Setuju), **TS** (Tidak Setuju), atau **STS** (Sangat Tidak Setuju) pada masing-masing pernyataan sesuai dengan pendapat Bapak/ Ibu.

Peneliti,  
Mahasiswa Jurusan Pendidikan  
Bahasa Inggris UNY

Titi Nawangsari  
NIM. 09202241053

### 1. Kelayakan Isi

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
1	Materi yang dikembangkan sesuai dengan kebutuhan Bahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV.				
2	Materi yang dikembangkan sesuai dengan konteks akademik mahasiswa Pendidikan Matematika Program International semester IV.				
3	Materi yang dikembangkan berisi teks yang sesuai dengan kebutuhan mahasiswa Pendidikan Matematika Program International semester IV				
4	Materi yang dikembangkan berisi ekspresi ( <i>language function</i> ) yang sesuai dengan kebutuhan akademik mahasiswa Pendidikan Matematika Program International semester IV.				
5	Input (dialog atau monolog) pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
6	Gambar pada materi yang dikembangkan sesuai dengan topik dibahas.				
7	Tabel pada materi yang dikembangkan sesuai dengan topik yang dibahas.				
8	Materi yang dikembangkan mendorong mahasiswa untuk dapat melakukan komunikasi interpersonal dan transaksional.				
9	Materi yang dikembangkan mendorong siswa untuk dapat memahami struktur makna dan fitur linguistik pada teks yang dibahas.				
10	Materi yang dikembangkan mengarahkan mahasiswa untuk dapat berkomunikasi dengan kualitas bahasa yang akurat dan berterima sesuai dengan konteks komunikatif yang berlangsung.				

11	Materi yang dikembangkan memotivasi mahasiswa untuk mengembangkan kecakapan hidup secara personal, sosial dan akademik.				
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Saran dan tanggapan untuk perbaikan:

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## 2. Kelayakan Bahasa

No	Pernyataan	SS	S	TS	STS
		4	3	2	1
12	Bahasa yang digunakan sesuai dengan tingkat kemampuan berbahasa Inggris mahasiswa Pendidikan Matematika Program International semester IV				
13	Perintah (instruksi) dan penjelasan dalam materi yang dikembangkan dapat dimengerti oleh mahasiswa Pendidikan Matematika Program International semester IV.				
14	Bahasa yang digunakan sesuai dengan aturan grammatikal dalam Bahasa Inggris.				
15	Ejaan ( <i>spelling</i> ) yang digunakan sesuai dengan kaidah Bahasa Inggris yang benar.				
16	Pemilihan kosakata pada materi sesuai dengan kaidah dalam Bahasa Inggris.				
17	Pesan atau informasi yang disajikan mencerminkan keruntutan makna dalam satu bagian (kalimat atau paragraf).				
18	Pesan atau informasi yang disajikan mencerminkan keruntutan makna antar bagian (kalimat atau paragraph).				

Saran dan tanggapan untuk perbaikan:

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### 3. Kelayakan Penyajian

No	Pernyataan	SS	S	TS	STS
19	Aktivitas ( <i>task</i> ) diurutkan dari yang paling mudah ke aktivitas ( <i>task</i> ) yang paling sulit.				
20	Jumlah aktivitas ( <i>task</i> ) seimbang atau hampir sama pada setiap unitnya.				
21	Aktivitas ( <i>task</i> ) terpusat pada siswa.				
22	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk berpartisipasi aktif dalam kelas.				
23	Aktivitas ( <i>task</i> ) yang diberikan mendorong siswa untuk melakukan komunikasi lisan secara efektif.				
24	Aktivitas ( <i>task</i> ) yang diberikan membantu memunculkan kreativitas mahasiswa dalam proses belajar.				
25	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk bertanggung jawab atas proses belajarnya sendiri.				
26	Aktivitas ( <i>task</i> ) yang diberikan mendorong mahasiswa untuk mengenali keberhasilan dan kekurangan siswa dalam kegiatan belajar dan berkomunikasi.				
27	Penyajian aktivitas ( <i>task</i> ) mencakup evaluasi untuk mengukur tingkat pemahaman mahasiswa terhadap materi yang sudah dipelajari.				
28	Aktivitas ( <i>task</i> ) yang diberikan memuat kosakata yang berhubungan dengan topik pada unit.				
29	Aktivitas ( <i>task</i> ) yang diberikan terdiri dari aktivitas terdampingi ( <i>guided activities</i> ) dan aktivitas tidak terdampingi ( <i>free guided activities</i> ).				
30	Setiap unit terdiri dari aktivitas pembuka ( <i>opening</i>				



	<i>activities</i> ).				
31	Setiap unit terdiri dari aktivitas utama ( <i>main activities</i> ).				
32	Setiap unit terdiri dari aktivitas penutup ( <i>closing activity</i> ).				

Saran dan tanggapan untuk perbaikan:

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#### 4. Kelayakan Kefrafikan

No	Pernyataan	SS	S	TS	STS
33	Desain buku ini menggunakan unsur tata letak (judul bab, sub judul, angka halaman, ilustrasi, keterangan gambar dll) yang baik.				
34	Huruf yang digunakan tidak terlalu beragam.				
35	Ukuran huruf dapat terbaca dengan mudah.				
36	Warna yang digunakan pada materi yang dikembangkan tidak mengganggu penyampaian informasi.				
37	Gambar yang disediakan memenuhi tujuan estetik.				
38	Gambar yang disediakan memenuhi tujuan fungsional.				

Saran dan tanggapan untuk perbaikan:

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REKOMENDASI

Mengacu pada hasil penilaian diatas, maka dengan ini unit 3 dinyatakan:

- Layak tanpa revisi
- Tidak layak
- Layak dengan revisi sebagai berikut:

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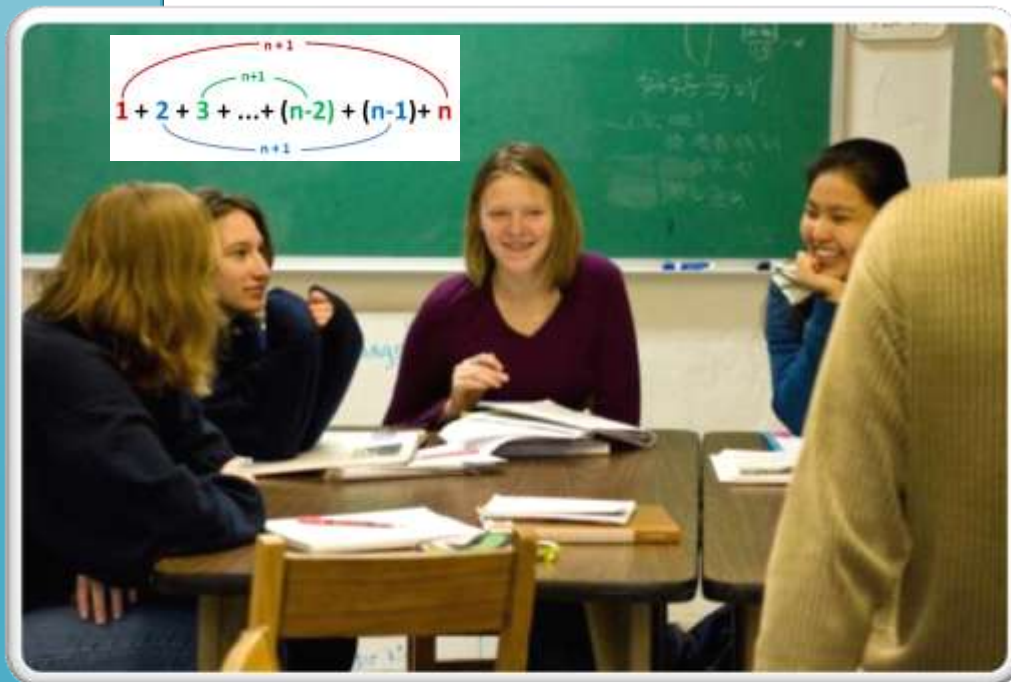
Yogyakarta,.....2014  
Evaluator,

.....  
NIP.

## UNIT

# 1

## In My Opinion, Integer Is an Interesting Topic.



Picture 1.1

As students of Mathematics Education study program, you must have been familiar with integers. When you hear the word “integer”, what comes to your mind? What do you think about integer?

In this unit, you will learn some expressions used to ask and give opinions about integers. You will also use the expressions in the communication activities.



**A**

## Let's Get Started



### Task 1

Study the following picture and answer the questions.

---



Picture 1.2

In an activity discussing integer, you find it difficult to solve some problems of integer. You want to ask your friend's opinions of how to solve the problems.

What will you say to her/him?

Can you say it using the expressions of asking for opinions?

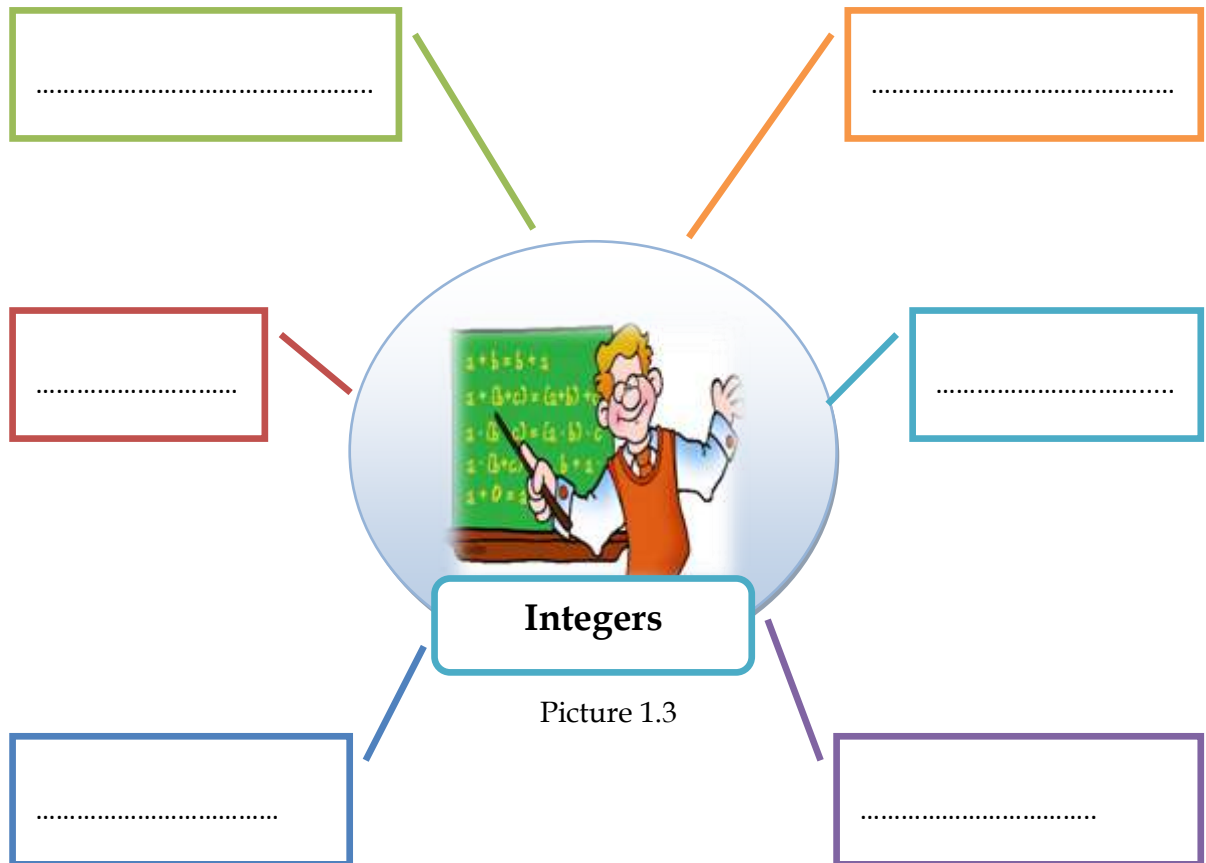
Can your friend answer your questions using expressions of giving opinions?

If you are able to ask your friend using such expressions, which expression do you think is the most appropriate to be used?



### Task 2

Below is a mind map of integers. Think about integers and write the things that you usually learn in integers on the chart.

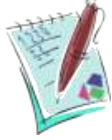


#### Do you know?

Some historians believe that the first evidence of the use of negative numbers was around 300 B.C. in Western China .



## B Let's Take Action



### Task 3

Below are some adjectives and adverbs that you are going to find in Task 4. Complete the table below and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation
1	abundant	adjective	berlebih	/ə' bʌn.d ə nt/
2	afraid	.....	.....	.....
3	abundant	.....	.....	.....
4	below	.....	.....	.....
5	clear	.....	.....	.....
6	complicated	.....	.....	.....
7	exaggerate	.....	.....	.....
8	physical	.....	.....	.....
9	quite	.....	.....	.....
10	simpler	.....	.....	.....



### Task 4

You will listen to a conversation containing some expressions of asking and giving opinions about something. Listen carefully and take notes for important information, then answer the following questions according to the conversation.

1. What is being discussed by the speakers?
2. What are their opinions about the topic?
3. Where did Colby take the materials from?
4. What do they think about the professor?
5. What is the definition of the topic given by the speaker? Use your own words.
6. In what kind of other fields, can the topic be applied to?
7. What are subtopics that they are going to learn related to the topic?
8. When will they learn the topic in the class?
9. Is there any expression of asking opinions in the conversation? (If any, mention it/them).
10. Is there any expression of giving opinions in the conversation? (If any, mention it/them)



### Task 5

Study the following explanation with your partner.



## Language Functions: Asking and Giving Opinions

There are some expressions that can be used in asking and giving opinions. You may need different expressions for different situations. Furthermore, you need to consider the level of formality of the expressions that you are going to use.

Below are explanations of the expressions that you need to ask and give opinions and in what situation you can use the expressions.

Situations	Expressions		Level of formality
	Asking for Opinions	Giving Opinions	
You are having a chat in a canteen with your friends about today's math lecture.	<ul style="list-style-type: none"> <li>- What about...?</li> <li>- How do you see...?</li> <li>- What do you reckon...</li> </ul>	<ul style="list-style-type: none"> <li>- I think....</li> <li>- I'd say....</li> <li>- Well, to my mind,...</li> <li>- I reckon.....</li> </ul>	<b>Less formal</b>
You are at the theatre and you are having conversations with someone who happens to be sitting next to you.	<ul style="list-style-type: none"> <li>- What do you feel about...?</li> <li>- What do you think of/about...?</li> <li>- What is your opinion/view about...?</li> </ul>	<ul style="list-style-type: none"> <li>- In my opinion/view...</li> <li>- I believe/feel...</li> <li>- From my point of view.....</li> </ul>	↕
You are attending a national mathematical conference and you are talking to another delegate.	<ul style="list-style-type: none"> <li>- Do you have any opinion on...?</li> <li>- What would you say to....?</li> <li>- I'd be glad/grateful to have your view/opinion on....?</li> </ul>	<ul style="list-style-type: none"> <li>- I consider.....</li> <li>- I hold the view/opinions</li> <li>- It's my considered opinion that....</li> </ul>	<b>More formal</b>

*Adapted from Function in English (1982)*





### Task 6

Study the following conversation in pairs and identify the expressions of asking and giving opinions and the level of formality then practise the conversation with your partner.

Rani and Paulina are having conversation about their math class today. They are chatting in a small garden somewhere in their campus.

Rani : Did you enjoy the math lecture?

Paulina : The professor droned on and on about dividing and multiplying integers.

Rani : But he's quite funny right?

Paulina : Yeah, but it's like taking all day long to discuss them.

Rani : Well, I think he wanted us to understand it well before moving to the next topic. You see it right? Many of us haven't understood the materials yet?

Paulina : Is it really difficult topic?

Rani : I believe that for some people it is difficult. Have you solved all the problems given?

Paulina : Yeah.

Rani : Actually, I still don't get it how to add and subtract integers.

Paulina : Why are they so hard for you?

Rani : I don't know. Have a look at this.

$$-5+(-9)=\dots\dots\dots$$

$$-5+9=\dots\dots\dots$$

What do you think of this question?

Paulina : Well, I must say, it's very easy. If you find it difficult, what you need to do is focus on the sign whether it is positive or negative. If both of the numbers are negative or positive, you just need to jump them together. You got (-5) and (-9), so all together, you got (-14).

Rani : Okay. But I usually have problems with the sign.

Paulina : What about using the number line? It will help you think about how negative and positive numbers work when they are together.

Rani : I'd say you're brilliant.

Paulina : Don't be exaggerating. It's just a common thing. Think of positive numbers as moving to the right on the number line and negative number as moving to the left on the number line.

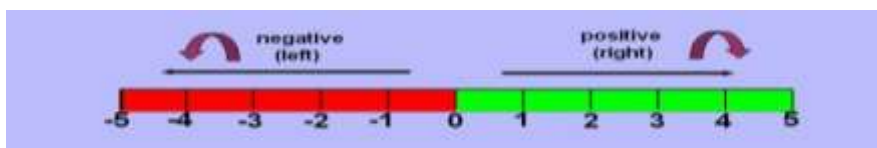
Rani : Oh, I see.

Paulina : Remember that every negative cancels out one positive, so for the second question, 5 negatives cancel out 5 positives and that will leave 4 positives hanging out.

Rani : That's right. I get it.

Paulina : Now, how do you feel about integer? Is it really difficult topic?

Rani : Well, to my mind, it's quite easy after you help me. Thank you.



Picture 1.4



### Task 7

You will be given a conversation of two students talking about integers with some blank spaces. Complete the blanks using expressions of asking and giving opinions in the left box and adjective and adverb in the right box, then act it out with your partner.

Ashley and Sinta are having conversation about the assignment given by their lecture in food court.

- Ashley : Have you read the paper that the professor assigned for tomorrow class?...**(2)**.... it's ....**(1)**..... interesting.
- Sinta : No. Not yet. What is it about?
- Ashley : It's about integers. There are some questions that should be solved in pairs and we are going to have group discussion ....**(2)**.....
- Sinta : Well,.....**(3)**....., it isn't ....**(4)**..... at all.
- Ashley : By the way, let's study together. We need to solve all the questions.
- Sinta : All right, professor ....**(5)**..... likes to give ....**(6)**..... questions to his students.
- Ashley : .....**(7)**..... dividing the questions? Each of us does five questions.
- Sinta : .....**(8)**..... we'll get ....**(9)**..... understanding if we discuss it together.
- Ashley : All Right, then.
- Sinta : Are decimals, fraction and percents included in integer?
- Ashley : No, Integers are whole numbers and their negative opposites.
- Sinta : Meaning that it includes positive whole numbers, ....**(10)**..... whole numbers and zero?
- Ashley : That's right.
- Sinta : Do you know the symbol representing integer?
- Ashley : Well, I've read the materials about it ....**(11)**.... Hmmmm, it's alphabet zi, capital zi. Zi stands for Zahlen, it's used to denote set of integers.
- Sinta : I see. It's quite easy. ....**(12)**.....?
- Ashley : ...**(13)**..... the same as you.
- Sinta : What issues do we have to solve on integers?
- Ashley : Not so many. It's about adding, subtracting, multiplying and dividing integers, especially the rules of all of them.
- Sinta : There is only 15 minutes left before the next class start. Let's continue our discussion ....**(14)**..... the class ends.
- Ashley : Okay.

**Z**

Letter which represents integer

I think            I believe            I feel  
 What about                    to my mind  
 What do you feel?

before            interesting  
 quite            tomorrow  
 after            sometimes  
 negative            better  
 unexpected

# For Your Information

## Mathematical Symbol in Integers

Integers consist of negative number, zero and positive number. The set of integer is usually shown like this:

$$\{\dots -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, \dots\}$$

Symbol	Meaning	Example
$\in$	belong to	$2, 4, 6 \in \text{integers} \rightarrow 2, 4, 6$ belong to integers.
$\neq$	(is) not equal	$7 - 3 \neq 3 - 7 \rightarrow 4 \neq -4$
$<$	less than	$x < y \rightarrow x$ is less than $y$
$\leq$	less than or equal to	$x \leq y \rightarrow x$ is less than or equal to $y$
$>$	greater than	$x > y \rightarrow x$ is greater than $y$
$\geq$	greater than or equal to	$x \geq y \rightarrow x$ is greater than or equal to $y$
$ 2 $	The absolute value of 2,	$ 2  = 2$ , the absolute value of 2 positives is 2
$ -5 $	The absolute value of -5,	$ -5  = 5$ , the absolute value of 5 negatives is 5

Note:  $x$  and  $y$  are letters to replace integers. Absolute value is the distance a number from zero.



### Task 8

#### Let's Play Survey Game

Ask your friends' opinions about integer and their reasons of having such opinions. You have to fill the table below and then share it to your friends in front of the class.

interesting, boring, easy, difficult, challenging, complicated, tricky

No	Your friends' names	Opinions	Reasons
1			
2			
3			
4			
5			



### Task 9

Complete the following situations with expressions of asking and giving opinions, and then identify the level of formality. Using the completed situations, practice them with your partners. Number one has been done for you.

---

1. Jacob : Excuse me, are you mathematic department student?  
Ana : No. I'm not. I'm art department student.  
Jacob : As students of art department, *what is your opinion* about mathematics?  
Ana : *In my opinion*, mathematics is a scary subject. It consists of dreadful formulas.  
Jacob : Well, beside that, *what do you think of* the significance of mathematic in daily life?  
Ana : *From my point of view*, people don't need all those formulas in their daily life. For example, if we go to a supermarket to buy some food or drink we don't need to use sin or tangent.  
Jacob : Well thank you, your opinion is really helpful.  
Ana : Any time.

2. Lubis is asking Sean for helping him to solve a question in the application of integer.

- Lubis : Sean, check this out.  
Sean : All right.  
Lubis : .....of this question?  
Sean : Well, this question is interesting.  
Lubis : I barely solve this question.  
Can you solve it? I just want to make sure that my answer is right.  
Sean : Sure. ....it's really easy question.  
First, you need to find the amount of temperature change and set up a proportion.

One day in July, the temperature at ground level at the airport was  $90^{\circ}$ . A pilot reported the temperature at 10,000 feet was  $50^{\circ}$ . How much did the temperature drop per 1000 feet?

- Lubis : The change of temperature is  $40^{\circ}$ , then how is the proportion?  
Sean : The distance of second temperature form the ground is 10,000 feet. The question is how much the temperature drops per 1000. Then you need to subtract 1000 with 10,000 and multiply the result with 40.

Continued....

Lubis : Wow, that's great. ...., you never find it difficult to solve problems in integer.  
 Sean : I couldn't agree with you more.  
 Lubis : Thanks, dude.  
 Sean : Anytime.

$$\frac{1000}{10000} \times 40 = 4$$

3. Hana and Milley are having a chat after their exam is finished. They are discussing about the question appeared in the exam paper.

Hana : How is your exam? I'm a bit worried of mine.  
 Milley : ....., it's quite easy-to-solve.  
 Hana : Really? You solve all those dreadful questions of integer?  
 Milley : ....., integer isn't that scary.  
 Hana : So, did you solve the question number four?  
 Milley : I forget the questions, what was about?  
 Hana : It's about the longitude of New York and Tokyo.  
 Milley : I see. ....discuss it together? I'll help you to solve the question.  
 Hana : Sure. My mind is not at ease at all.  
 Milley : I ..... you must use the number line. Look, London is 0. New York is in the west side of London and Tokyo is in the east side of London. If east side is the positive direction so New York is in negative direction.  
 Hana : Why couldn't I understand this?  
 Milley : I ..... you were in panic. All right, should we study together, next time?  
 Hana : ....., I must accept your offering to study together.  
 Milley : That's a good decision.

**Question no.4**

London, England, is located at  $0^\circ$  longitude. Write integers for the location of New York City whose longitude is  $74^\circ$  west and Tokyo whose longitude is  $140^\circ$  east. Assume that east is the positive direction.



## Task 10

Study the following explanation with your partner.



### Grammar: Adjectives

According to Cambridge Advanced Learners' Dictionary, an adjective is a word that describes a noun or pronoun. Adjective has its own formation. Adjectives can also be identified from its position towards nouns. Below is the explanation of adjectives formation and its position towards noun.

#### A. Formation of adjectives

##### 1. Adjectives formed with suffixes

Many adjectives related to verbs or nouns have characteristics ending (suffix). The suffixes change verbs or nouns into adjectives. Each of suffixes has its own meaning.

#### B. Formation of adjectives

##### 2. Adjectives formed with suffixes

Many adjectives related to verbs or nouns have characteristics ending (suffix). The suffixes change verbs or nouns into adjectives. Each of suffixes has its own meaning.

-able (capable of being): <i>manageable</i>	-ible (like -able): <i>permissible</i>
-ful (full of): <i>boastful</i>	-(i)an (historical period, etc): <i>victorian</i>
-ic: <i>energetic</i>	-ish (have the quality of): <i>follish, redish</i>
-ive (capable of being): <i>attractive</i>	-ly (have this quality): <i>friendly</i>
-ant: <i>hesitant</i>	-ous: <i>humorous</i>

Example:

- I'm attracted by this scheme → I find it very attractive
- A class of forty can be managed → It's just about manageable

##### 3. Adjectives formed from prefixes

A prefix added to adjectives has a negative effect.:

un-: uncooked, unimaginable	im-: immoral, impractical
in-: incapable, inhuman	dis-: dishonest, disagreeable
il-: illegal, illegible	ir-: irresponsible, irregular

Example:

I think it's possible to solve the problem. I think it's impossible to solve the problem.

*Possible* has opposite meaning with *impossible*. *im-* gives negative impact to the word *possible*.

Continued.....

#### 4. Compound adjectives of measurements

Compound adjectives can be formed by combining numbers with noun in the singular.

Example:

A twenty-year-old-man

#### Compound adjective can refer to:

-age: a three-year-old building	-area: a fifty-acre farm
-volume: a two-litre car	-duration: a four-hour meeting
-length: a twelve-inch ruler	-depth: a six-foot hole
-price: a fifty-dollar dress	-time/distance: a ten-minute walk
-weight: a five-kilo bag	

#### B. Position of adjectives

Most adjectives are used in two ways in English:

1. Before noun: Integer is an *interesting* topic. (interesting: adj, topic: noun)
2. After be, seem (linking verbs):, etc Integer is *interesting*. (is: be, interesting: adj )

**Linking verbs:** be, appear, become, feel, look, prove, seem, smell, taste.

*Adapted from English Grammar Practice for Intermediate Students by L.G. Alexander (1998)*



#### Task 11

After studying adjectives in the previous task, restate the following sentences using correct adjectival forms. Discuss with your partner and share your results of discussion with your friends orally.

#### A. Adjectives using prefixes or suffixes

1. I know I hesitated before agreeing. I couldn't help being *hesitant* before agreeing.
2. I don't know where you find all that energy. You're tremendously.....
3. How many absents can be permitted? How many absents are.....
4. Sometimes she doesn't behave in a responsible manner. She's quite.....
5. Bob is not very capable of making decision. He's.....

#### B. Compound adjectives

1. The project costs two million rupiahs. It's a two-million-rupiahs project
2. The lecturer is thirty-five years old. She's.....
3. The conference lasts two days. It's.....
4. The faculty building is a half of hectare. It's.....
5. The examination takes two hours. It's.....



## Task 12

### Let's Play Game

You will be given a game on asking for and giving opinions. Study the game's rules and play the game based on the rules with your classmates. Do some rehearsal before playing the game.

<p>Type of activity: Pair and whole class</p>	<p>Function practiced:</p> <ul style="list-style-type: none"> <li>- Stating Opinion</li> <li>- Describing character</li> </ul>	<p>Exponent:</p> <ul style="list-style-type: none"> <li>- I think that...</li> <li>- In my opinion, etc.</li> <li>- Adjective for describing characters</li> </ul>
<p>Situation: You are in the division of research in the student organization. Someone in your division is going to be chosen as the leader. Naturally, you hope it's going to be you.</p>	<p>How to do:</p> <ul style="list-style-type: none"> <li>- Study the vocabulary.</li> <li>- Choose one of the names to act out. Flo will pair up with Sam Alex will pair up with Terry Pip will pair up with Robin</li> <li>- Each pair should discuss who is suitable for the leader by stating each of opinions based on the card.</li> <li>- After take out a name as a leader, each pair should share it to the other pairs. They should state their opinion based on the card, why they choose the person.</li> <li>- If in your class consists of twelve students or more, then there will be two or three students who act out a name.</li> </ul>	<p>Vocabulary:</p> <ul style="list-style-type: none"> <li>- Efficient</li> <li>- Cheerful</li> <li>- Bad-tempered</li> <li>- Good-natured</li> <li>- Hopeless at....</li> <li>- Rigid</li> <li>- Narrow-minded</li> <li>- Open-minded</li> <li>- Careful</li> <li>- Precise</li> <li>- Careless</li> <li>- Disorganised</li> <li>- Terrible</li> <li>- Pompous</li> <li>- Indecisive</li> <li>- Down-to earth</li> <li>- Inefficient</li> <li>- Grumpy</li> <li>- Miserable</li> </ul>

Note for the game:

Talk to people and find out what they think. Try to convince them of your opinion. Don't tell anyone directly what you think of them, of course, but you can tell them what the other people think about them, if you like.

The cards are in the appendices.





## C

## Let's Do More



### Task 13

You will be given some situations. Choose one of the situations and create a dialogue talking about integers and use the expressions on asking and giving opinions that you have learned in the previous tasks, then acting out the dialogue with your partners in front of the class. The dialogue should be 200-250 words long.

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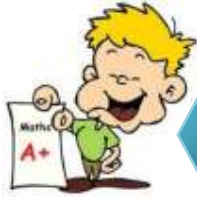
You're talking with your junior who asks your help for solving a question on integers.

You're having discussion with your classmates about how to multiply integer.

You're talking to your lecturer. Both of you are discussing of how to solve certain questions in dividing integers. You can decide the questions on your own.

You're talking to someone in a seminar who happens to be sitting next to you and you are discussing about the materials about integers which have been presented by the speakers.

You're a tutor and you're having discussion with your student on solving a question related to integers. You can decide the questions on your own.



## D

### Let's Do Evaluation



#### Task 14

From the subtopics you have brainstormed in Task 2, choose one of the subtopics and do role play with your partner in front of class using expressions of asking and giving opinions about the subtopic you have chosen.

---



## E

### Homework



#### Task 15

Interview three of your friends on the same departments. You are allowed to interview the upper semester or the lower semester. Ask their opinions about the advantages and disadvantages of studying integers. Then report your interview results in the class.

---

Quote Corner  
Quote Corner

**"Educating the mind without educating the heart is not education et all"**

**\_Aristotle\_**

## F Let's Make Reflections

### Self-Assessment

You have learned all the tasks in this unit. Do reflection based on yourself. Put a tick ( ✓ ) mark on the table of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for giving and asking opinions		
I can differentiate the level of formality of the expressions of asking and giving opinions		
I can apply easily those expression in conversation		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you find when you learn this unit here:

.....  
 .....

### Peer Assessment

Ask three of your friends that have worked with you in learning this unit and ask them to give you assessment by putting a thick mark ( ✓ ) on the table of Yes/No according to the statements.

Name of being assessed:.....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						

**Language Functions**

Asking for Opinions	Giving Opinion
What about..?	I think...
What do you think of...?	In my opinion...
What is your opinion of...?	It's my considered opinion that....
Do you have opinion on...?	

**Grammar: Adjectives**

## a. Formation of Adjectives

Formed with suffixes: manageable, friendly, humorous, etc.	Formed from prefixes: incapable, immoral, dishonest, etc.	Compound Adjectives: a six-foot hole, a twelve-inch rule, a red-haired guy, etc
---	--	--

## b. Position of Adjectives

Before noun: an *unimaginable* miracle.

After be or linking verbs: The miracle is *unimaginable*.

## LIST OF VOCABULARY

English	Parts of Speech	Pronunciation Transcript	Indonesian
able	adjective	/ ' eɪ . b l /	mampu
add	verb	/ æ d /	tambah
appropriate	adjective	/ ə ' p r ə u . p r i . ə t /	sesuai
assign	verb	/ ə ' s aɪ n /	memberikan
attend	verb	/ ə ' t eɪ n d /	mengikuti
carefully	adverb	/ ' k e ə . f ə l i /	teliti/hati-hati
chart	noun	/ tʃ a : t /	grafik
consider	verb	/ k ə n ' sɪ d . ə r /	mempertimbangkan
contain	verb	/ k ə n ' t eɪ n /	berisi
decide	verb	/ dɪ ' s aɪ d /	menentukan
delegate	noun	/ ' d e l . i . g ə t /	delegasi
divide	verb	/ dɪ ' v aɪ d /	membagi
drone	verb	/ d r ə u n /	Berbicara terus menerus
exaggerate	verb	/ ɪ g ' z æ dʒ . ə . r eɪ t /	Melebih-lebihkan
indicate	verb	/ ' ɪ n . dɪ . k eɪ t /	menunjukkan
line	noun	/ l aɪ n /	garis
matter	noun	/ ' m æ t . ə r /	persoalan
multiply	verb	/ ' m ʌ l . tɪ . p l aɪ /	mengalikan
nuance	noun	/ ' n j u : . a : n t s /	nuansa
pitch	noun	/ pɪ tʃ /	titinada
prefix	noun	/ ' p r i : . f i k s /	imbuhan awalan
sign	noun	/ s aɪ n /	tanda
solve	verb	/ s ɒ l v /	memecahkan
subtract	verb	/ s ə b ' t r æ k t /	mengurangi
suffix	noun	/ ' s ʌ f . i k s /	imbuhan akhiran
vowel	noun	/ v aʊ ə l /	huruf vocal
willingness	noun	/ ' wɪ l . ɪ ŋ . n ə s /	kemauan

## UNIT

# 2

We could find articles on quadrilaterals in the library.



Picture 2.1

In what semester did you study quadrilaterals? What did you learn about quadrilaterals? You may have been familiar with some particular terms of quadrilaterals. Can you give examples of them?

In some particular situations in the classroom, you may ask or give suggestions to your friends or your lecturers about the situation you are in or the things related to the situations.

In this unit, you are going to learn how to ask and give suggestions to others in a conversation. The topic you are going to deal with is quadrilateral.



**A**

## Let's Get Started

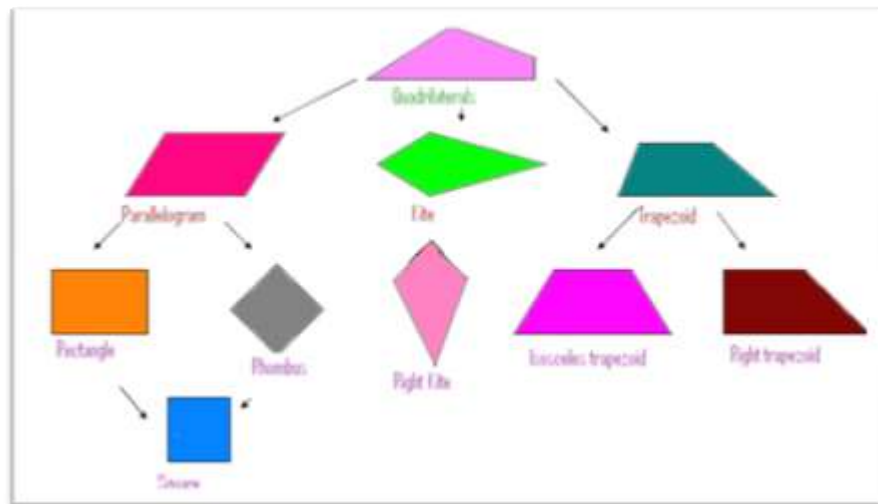


### Task 1

Study the following picture and answer the questions.

Questions:

1. What is the picture about?
2. How do you find the picture?
3. Suppose that your friend find it difficult in identifying types of quadrilateral and their properties. She asks you to give her suggestions how to overcome her difficulties. What kind of suggestions will you give to her?
4. Can you give your suggestions using appropriate expressions of giving suggestions?
5. Can your friend also use the expressions of asking for suggestions?
6. If you have already known such expressions can you give examples of them?

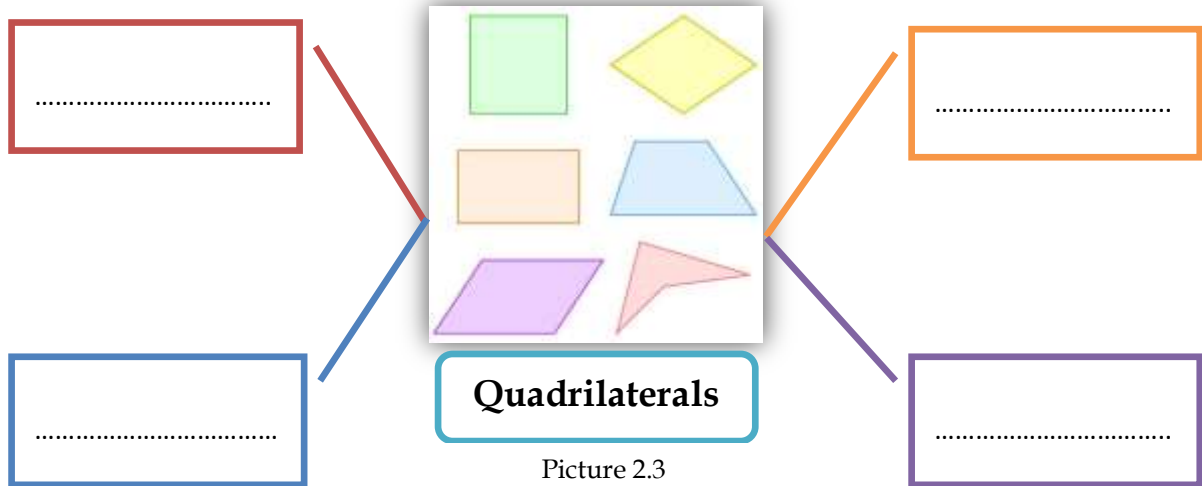


Picture 2.2



**Task 2**

Below is a mind map of quadrilaterals. Think about quadrilaterals and write the things that you usually learn in quadrilaterals on the chart.



Picture 2.3



**B**

**Let's Take Action**



**Task 3**

Below are some verbs and nouns that you are going to find in Task 4. Complete the table and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation Transcription
1	base	noun	alas	/beis/
2	classify	.....	.....	.....
3	follow	.....	.....	.....
4	kite	.....	.....	.....
5	leave	.....	.....	.....
6	paper	.....	.....	.....
7	parallelogram	.....	.....	.....
8	rhombus	.....	.....	.....
9	shape	.....	.....	.....
10	trapezoid	.....	.....	.....





#### Task 4

You will listen to a conversation containing some expressions of asking for suggestions about something. Listen carefully and take notes for important information, then tell orally the main point of the conversation to your partner. Ask your partner to tell back to you and compare whether you and your partner have the same understanding or not. The words below will help you in telling the main point of the conversation.

What?	.....
Who?	.....
When?	.....
Where?	.....
Why?	.....
How?	.....

## For Your Information

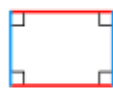


### Quadrilaterals at a glance

Quadrilateral is a flat shape with four straight sides. Quadrilateral is 2-dimensional shape which the sum of the angles is  $360^\circ$ .



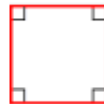
Parallelogram



Rectangle



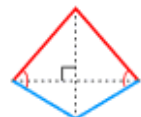
Rhombus



Square



Trapezoid (US)  
Trapezium (UK)



Kite

Below are the symbols that you usually find related to quadrilaterals:

$\perp$  : perpendicular

$\cong$  : congruent

// : parallel

$\sphericalangle$  : angle



### Task 5

Study the following explanation with your partner.



## Language Functions: Asking for Suggestions

Below are the expressions of asking for suggestions:

Expressions	Level of formality
If don't mind, would you like give me your suggestions? Would you give me your suggestions?  Could you recommend.....? Could you suggest me.....? Do you have suggestions for me?  Can you tell me what should I do? What should I do? Any idea?	More formal ↑ ↓ Less formal

There are many others of the expressions. In conversation, you may apply the expressions you have been familiar with.

*Quote Corner*  
*Quote Corner*

**"Live as if you will die tomorrow. Learn as if you were to live forever"**

**-Mahatma Gandhi-**



### Task 6

Below are two conversations talking about quadrilateral with different level of formality. Identify the level of formality in each conversation and complete the blanks parts in each conversation using appropriate expressions of asking for suggestions or any other responses in the brackets, then act them out with your partner.

A. Rachel and Charlotte are close friend. They often share the problems that they have. Rachel seems have problem and she wants to ask for suggestions to her good friend.

Rachel : I am tutoring mathematics for first year of a senior high school student, but he seems doesn't interested in math. ....(1).....?

Charlotte : You may use interesting way in giving explanation to him, or you may use ....(2)..... Some students find it interesting and challenging.

Rachel : Tomorrow's topic is.....(3)..... Can I apply games in teaching it?

Charlotte : Sure.

Rachel : ....(4)..... of what kind of games I can employ?

Charlotte : Well, for example, in introducing the ...(5)..... of quadrilateral you can use puzzle. He ought to solve each question by finding information from the book or other resources. It will be more interesting than listening to explanation only.

Rachel : Oh, I see. I'll make the ....(6).... in the form of family tree of quadrilaterals. In the top of the tree I'll write a question, for example "are both pairs of the opposite side parallel?" and the down line I'll write yes or no and there will be questions again. In the bottom of the tree there will be boxes and he has to conclude what the types are based on the questions. How is it?

Charlotte : That sounds good.

Rachel : Really? Or do you have any other ....(7).....?

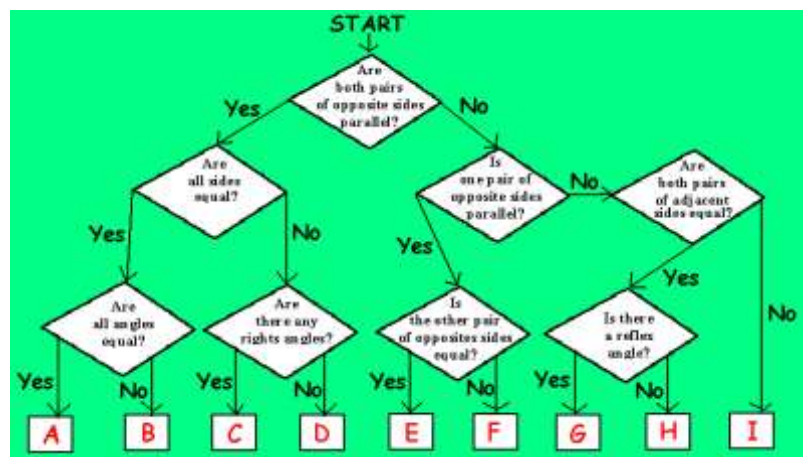
Charlotte : Let's try that one first, then we will try to find another ....(8)..... if it doesn't work.

Rachel : All right, thank you so much.

Charlotte : You're welcome.

Puzzle of properties of quadrilaterals

- a. suggestions
- b. solution
- c. games
- d. puzzle
- e. quadrilateral
- f. properties
- g. do you have any idea...
- h. can you tell me what should I do?



Picture 2.5

B. Sania was absent in the yesterday class, Mr. Mycroft' class because she had to attend an international seminar. Therefore, to cover the materials she missed, she studied by herself doing some problems in quadrilateral. However, she found it difficult to solve particular problems. She wanted to ask for suggestions to Mr. Mycroft' assistance.

something	angle	questions	overview
thing	library	characteristics	books
Would you tell me...		Could you suggest..	

Sania : Excuse me. I'm Sania, Mr. Mycroft's student. Can I ask you .....(1).....?

Assistant : Sure. I'm a little bit free now.

Sania : I was trying to solve some problems on quadrilateral but I found it difficult to solve this question. ....(2).....how to solve this question?

Assistant : Let me see the .....(3).....

Sania : Here.

Assitant : Before I give my suggestion, I want to ask a question to you? Do you familiar with the .....(4)..... of rhombus.

Sania : A little bit.

Assistant : As I remember, Mr Mycroft gave some .....(5)..... about the properties of quadrilateral. If you attend his class, you should have known.

Sania : I was absent yesterday because I had to attend an international seminar.

Assistant : Well. First .....(6)..... is you need to know whether  $\angle DAB$  and  $\angle DCB$  are congruent or supplementary, then you can operate the function and find the .....(7)..... of each in degree and finally you can find  $\angle ADC$ .

Sania : Oh I see. I get it now.

Assistant : So, are they congruent or supplementary?

Sania :  $\angle DAB$  and  $\angle DCB$  are congruent.

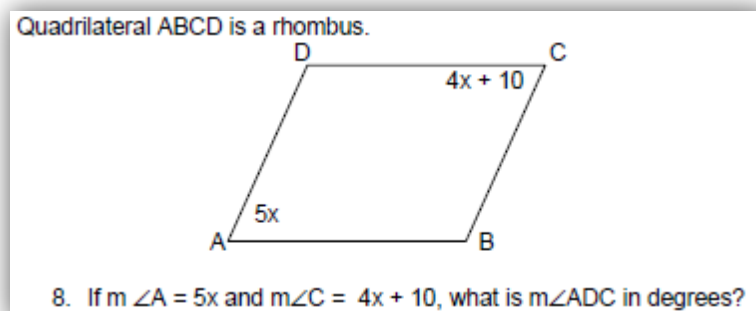
Assistant : That's right. Is there anything else?

Sania : Well, It's said that Mr. Mycroft showed students few.....(8)....for his class. ....(9).....me which book is good and easy to be understood?

Assistant : Mr. Mycroft usually uses this book. You can find it in the .....(10).....

Sania : Well, thank you so much for your suggestions.

Assistant : You're welcome.





### Task 7

#### Let's Play a Game

Play information-gap game below based on the card that you are going to receive.

#### How to play

You will be given a card containing a question about quadrilateral. Each card has a pair in which the pair contains the answer of the question. Find your friend who has the same card as yours then ask her/him to give suggestions of how to solve the question based on the answer on the card.

After knowing the answer for the question on your card, you and your partner should show the card in the class and share with your friends orally the answer of the questions.

Note: the cards are in the appendices.



### Task 8

Study the following explanation with your partner.



#### Grammar: Modal Auxiliaries

It is called as modal auxiliaries because they add to verb some meaning. Modal auxiliaries consist of *can, may, should, ought to, must, have to, may* and soon. Each of them has its own function. They can be used to express *ability, permission, obligation or advisability, necessity, possibility* and soon.

In the previous tasks, you have seen that modals appear in the expressions of asking for suggestions such as *can, could, and would*. Those are used to express politeness.

can → could → would → more polite

Continued.....





### Task 9

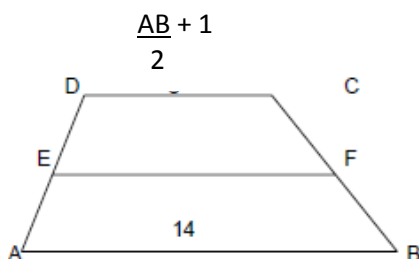
You will be given a conversation between two students containing some modal auxiliaries. Analyze the modal auxiliaries used by the speakers with your partner whether the modals are used to express obligation or necessity and give your reasons, after that share your analysis orally with your classmates.

---

On a free time after the class ends in the afternoon. Molly and Luna are having a chat about the lecture in the campus park.

- Luna : It's so refreshing sitting down here after having long lecture.  
Molly : I think we should come here often to refresh our mind.  
Luna : You're right. Anyway, the last lecture was so tiring. I can't imagine that I have to remember those all theories about quadrilaterals properties.  
Molly : Why should you memorize that? You don't have to do that. You just have to be familiar with each type of quadrilateral. Just use your logic by imagining the shape of them.  
Luna : I'm with you there.  
Well, I actually have one question that I want to discuss with you.  
Molly : All right. What is it about?  
Luna : About median of trapezium.  
Molly : Well, step 1 is that you must know the formula to find EF.  
Luna : That's the problem.  
Molly : May be you should study more diligently.  
All right I'll give you hint. First, you must find the formula by yourself because I won't tell you. Second, before you operate the formula you must find DC. After you find DC, you can apply to the formula and finally you can find EF.  
Luna : I hope that you will solve it for me.  
Molly : Don't be such a cry baby. Study hard.  
Luna : You sound like my mother.  
Molly : That's good, I think.

ABCD is a trapezoid with median EF. If  $DC = \frac{AB}{2} + 1$  cm and  $AB = 14$  cm, find EF.



Solution:

Step 1. Write the formula

$$EF = \frac{1}{2} (AB + DC)$$

Step 2. Find DC

Step 3. Substitute the values of DC and AB into the formula. Solve for EF.



### Task 10

Study the following conversation in pairs and answer the questions based on the conversation.

---

- Lisa : Excuse, are you Mary Watson, professor Snape's assistant?  
Watson : Yes, I am.  
Lisa : I'm Lisa Putri. I got some assignments from the professor. If you don't mind, would like to give me some suggestions about them?  
Watson : Sure, then.  
Lisa : The professor asked us to summarize about quadrilaterals and he said that we just needed to summarize important subtopics of quadrilateral. After I read some books or any other resources, they all seem to be important but it will be very much. Could you suggest me what I should summarize about quadrilateral?  
Watson : Well, according to you, what subtopics which are considered to be important to summarize?  
Lisa : I have a list of them. I think the properties of quadrilaterals, the characteristics, area and perimeter.  
Watson : Yes, those are important. If I may suggest you, you can add the application of quadrilateral in real life, the angle of each type of quadrilateral.  
Lisa : Can I use some graph or figure?  
Watson : Sure. You can use tables or any other graphs. I'd like suggest you to use family tree of quadrilateral in summarizing the properties.  
Lisa : I was thinking about that too.  
Watson : Okay, anything else?  
Lisa : Can you recommend me what book I can use for the reference? He asked us to use three or more references.  
Watson : Actually there are some modules written by the professor. Just try to look for them in the library. He never tell his students that he wrote some modules but if you go to look for them. You will find some.  
Lisa : Mary, thank you very much for your suggestions. Those will be really helpful.  
Watson : You're welcome Lisa.

#### Questions

1. What is talked about by Lisa and Mary in the conversation?
2. What is the relationship of the speakers?
3. According to the conversation, can you identify the level of formality?
4. Justify your answer for number three by mentioning the indicators that determine the level of formality of a conversation?
5. Can you identify the expressions of asking and giving suggestions in the conversation above? (Mention them).





### Task 11

Study the following explanation with your partner.



## Language Functions: Giving Suggestions

Suggestions are not as strong as advice. *Might (want to)*, *could*, *why don't/doesn't* and *why not* are often used to make suggestions.

Might (want to) and could	<i>Might (want to)</i> and <i>could</i> are often used to express a choice of possible actions. <i>Might</i> is often used with <i>want to</i> . Example: You might ask the librarian the book or you could wait until the professor gives it to us.
Why not and Why don't/doesn't	<i>Why not</i> and <i>Why don't/doesn't</i> are both question forms and ends with a question mark. <i>Why not</i> and <i>Why don't/doesn't</i> are not very common in conversation. Do not use them in academic writing. Examples: Why not prepare for the exam from now? Why don't you discuss it with your friends?

Here are other examples of the expressions for making suggestions:

Situation	Expressions	Examples
<b>You give suggestions to your friends.</b>	Let's.....	Let's draw the concept first. What about using games?
	What about....., (then)?	
	We could always.....	We could always make an analysis on every question.
<b>In a meeting of your organization</b>	I'd like to suggest/propose....	May I suggest limiting the invitation, then?
	May/might I suggest....., (then)?	If I may make a suggestion, voting will do.
	If I may/might make a suggestion.....	I'd like to suggest him as the moderator.

*Adapted and combined from Function in English (1992) and Advice and Suggestions from cambridge.com*



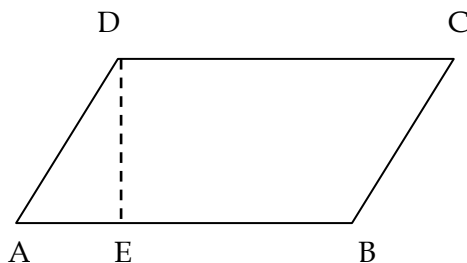
### Task 12

You will be given two conversations talking about quadrilaterals with some blank parts. Identify the level of formality of the conversations and complete the blanks parts with your own words or the appropriate expressions of asking and making suggestions, then act them out with your partner.

---

A. Zeta is asking for suggestions to his brother's friend. He is seven years older than Zeta.

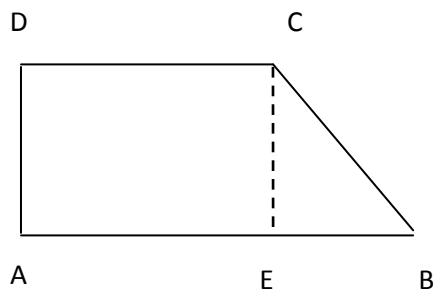
- George Wiggins : Hi, Zeta. Is your brother's ....(1)....?  
Zeta : He's going to the supermarket with mom. He said that they will be home in 10minutes. Please, come in.  
Zeta : Well, my brother said that you like math.  
George Wiggins : Yeah...  
Zeta : Actually, I got .....(2).... from my lecture. If you don't mind,.....(3)....?  
George Wiggins : Sure.  
Zeta : I find it difficult to solve this question.  
Could .....(4).....of how to solve the question?  
George Wiggins : You know how to find area and perimeter of .....(5)....., right?  
Zeta : Yeah...  
George Wiggins : First, what about find AE?  
Zeta : I've found AE. It is 5 cm but I am bit confuse about CB. Should I convert the root form?  
George : You can just .....(6)..... in the root form.  
Zeta : Oh I se. AD and BC are parallel so BC is 13. Well, I think I know how to solve the question now.  
George : You could change  $\sqrt{27}$  into  $3\sqrt{3}$ .  
Zeta : All right, thank you for your .....(7).....  
George : Not at all.



$$\begin{aligned}AD &= 13 \text{ cm} \\DE &= 12 \text{ cm} \\EB &= \sqrt{27} \text{ cm}\end{aligned}$$

B. Yasmin is having a discussion with her friend about the topic that has been explained by their lecturer.

- Yasmin : I haven't .....(1)..... yet about what had been explained by Mr. Holmes. I often get troubles with angles.
- Jane : I think angles in quadrilateral are quite simple.....(2).....we study together, now? The next class is two hours later from now.
- Yasmin : That's good idea. ....(3)..... sit at that bench.
- Jane : All right, then.
- Yasmin : Can you explain how to .....(4)..... this question?
- Jane : This is trapezoid. You may add a new dot as E, then draw line from C to E. Line CE is .....(5)..... to Line DA so both of them are 12 cm. To find out EB you can subtract AB with DC, so EB is 5.
- Yasmin : Then, I can find line CB by using Pythagoras, right?
- Jane : That's right. But why don't you find the angle by using tangent of C angle so you don't have to find line CB.
- Yasmin : Oh, I see.
- Jane : Remember. The .....(6)..... of angles in a triangle is 180 degree.
- Yasmin : Yeah. In the end, I can find angle B by subtracting 180 with angle E and C.
- Jane : .....(7).....
- Yasmin : You're so clever, Jane. Thank you.
- Jane : Any time.



If  $DA = 12\text{cm}$ ,  $EB = 5\text{cm}$ . Find angle BCE and EBC



### Task 13

Let's Play a Game.

Play the game according to the following guideline. Use the expressions of asking and giving suggestions you have learned in the previous tasks.

---

#### **Situation:**

There are several types of materials containing quadrilaterals which have been recommended by your lecturer but you can't afford all of them. You want to have the most effective material for you to study and surely the most affordable one. In order to get such material, you are going to ask your friends' suggestions about the materials.

#### **How to play:**

- Make a group of three or four.
- One of the members will be the one who asks for suggestions and the rest members will be those who make suggestions.
- Those who give suggestions will suggest only one type of materials based on the card. They have to mention the reasons why they have such suggestions by explaining the materials based on the cards.
- After getting all the suggestions, the one who asks for suggestions should make a decision which material she/he will choose.
- Share the decisions with your friends in the classroom and your reasons of choosing such material.

Note: the cards are on the appendices.

Quote Corner  
Quote Corner

**"It does not matter how slowly you go as long as you do not stop"**

**Confucius**

**C****Let's Do More****Task 14**

You will be given some situations. Choose one of the situations and create a dialog talking about quadrilaterals and use the expressions on asking and giving suggestions that you have learned in the previous tasks, then acting out the dialogue with your partners in front of the class.

---

You have discussion with your partner about the application of quadrilaterals in real life that you are going to present in the class.

You find it difficult to solve a particular problem of quadrilaterals and you want to ask suggestions your professor's assistant.  
You can determine the problem by yourself.

You want to ask for suggestions to your friend from the upper semester a good material for studying quadrilateral because you find it difficult to understand about quadrilateral by reading the materials that you have.

You want to ask suggestions to your friend of how to solve a particular problem on complex quadrilaterals.  
You can determine the problem by yourself.



## D

### Let's Do Evaluation



#### Task 15

From the subtopics you have brainstormed in Task 2, choose one of the subtopics and do role play with your partner in front of class using expressions of asking and giving suggestions about the subtopic you have chosen.

---



## E

### Homework



#### Task 16

Interview three of your friends in the same departments. You are allowed to interview the upper semester or the lower semester. Ask their suggestions of how to learn quadrilateral easily. Then report your interview results in the class.

---

**F** **Let's Make Reflections**

You have learned all the tasks in this unit. Do reflection based on yourself. Put a tick (√) mark on the table of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for asking and making suggestions		
I can apply easily those expression in conversation		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you have when you learn this unit here:

.....  
 .....  
 .....

**Peer Assessment**

Ask three of your friends that have worked with you in learning this unit and ask them to give you assessment by putting a thick mark (√) on the table of Yes/No according to the statements.


Name of being assessed:.....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						

# G

## Summary

### Expressions of asking and giving suggestions:

Expressions		The level of formality
Asking for suggestions	Giving suggestions	
If don't mind, would you like give me your suggestions? Would you give me your suggestions?  Could you suggest me.....?  Do you have suggestions for me? Can you tell me what should I do?	If I may make a suggestion....  I'd like to suggest....  We could always....  What about..... Let's.....	More formal    Less formal

### Modals and their usage:

Modal	Usage
Should/ought to	To express obligation or advisability. They use to express to give moderate recommendation.
Have to/ must	Have to and must are used to express necessity. They use to give strong recommendation.



## LIST OF VOCABULARY

Vocabulary	Part of speech	Pronunciation Transcript	Indonesian Equivalent
<b>angle</b>	noun	/ 'æŋ.ɡl /	sudut
<b>apply</b>	verb	/ ə'plai /	menerapkan
<b>area</b>	noun	/ 'eə.ri.ə /	luas
<b>base</b>	noun	/ beɪs /	sisi alas
<b>challenging</b>	adjective	/ 'tʃæl.m.dʒɪŋ /	menantang
<b>consider</b>	verb	/ kən'sɪd.ə r /	mempertimbangkan
<b>isosceles</b>	adjective	/ aɪ,sɒs. ə li:z	sama kaki
<b>kite</b>	noun	/ kaɪt /	layang -layang
<b>librarian</b>	noun	/ laɪ'breə.ri.ən /	penjaga perpustakaan
<b>leg</b>	noun	/ leg /	sisi kaki pada trapesium
<b>length</b>	noun	/ len k θ /	panjang
<b>may</b>	Modal verb	/ meɪ /	boleh
<b>measurement</b>	noun	/ 'meʒ.ə.mənt /	pengukuran
<b>overcome</b>	verb	/ ,əʊ.və'kʌm /	mengatasi
<b>particular</b>	adjective	/ pə'tɪk.jʊ.lə r /	khusus
<b>perimeter</b>	noun	/ pə'rɪm.i.tə r /	keliling bangun datar
<b>property</b>	noun	/ pə'rɪm.i.tə r /	sifat (bangun datar)
<b>recommend</b>	verb	/ ,rek.ə'mend /	menganjurkan
<b>rectangle</b>	noun	/ 'rek.tæŋ.ɡl /	segi empat
<b>rhombus</b>	noun	/ 'rɒm.bəs /	belah ketupat
<b>side</b>	noun	/ saɪd /	sisi
<b>square</b>	noun	/ skweə r /	kotak
<b>trapezoid</b>	noun	/ 'træp.i.zɔɪd /	Trapezium

## UNIT

# 3

## What I'd Like to Present to You Today is Linear Algebra.



Picture 3.1

How many times do you do presentations every week? How do you organize your presentation? At the end of your presentation, do you always make a generalization/conclusion of the topic that you have presented?

Algebra is a very well-known part of mathematics. You must have been familiar with it because it is a very broad branch and it is applied in many fields.

In this unit, you are going to learn some expressions to do presentations and make generalizations. You are also going to practise how to use them in presentations while discussing sub topics of algebra.



A

## Let's Get Started



### Task 1

Study the following picture and answer the questions.

A photograph of a classroom where three students are presenting. A large screen in the background displays a presentation slide. The slide has a decorative border and contains the following text:

Introduction  
The main objectives of this presentation are:

- 1. To introduce the subject of Linear Algebra
- 2. To discuss the importance of Linear Algebra in various fields
- 3. To explore the applications of Linear Algebra in real-world scenarios

Surrounding the photograph are several speech bubbles and mathematical symbols:

- A blue dashed speech bubble on the left says: "In my presentation, I'll focus on the three major issues."
- A blue dashed speech bubble at the top right says: "Good Morning, everybody."
- An orange dashed speech bubble on the right says: "Let me introduce myself. My name is Ann Brown."
- A blue dashed speech bubble at the bottom right says: "The subject of my presentation is Linear Algebra"
- A tilted white box with a dashed border contains mathematical symbols:  $x - 2 = 4$ ,  $+2$ ,  $\frac{+2}{0}$ ,  $\frac{+2}{6}$ , and  $4$ .

Picture 3.2

### Questions

1. What kind of activity does the picture show?
2. How often do you do such activity every week in the classroom?
3. How do you organize such activity?
4. The activity has some parts. Can you mention those parts?
5. In every part, you need to use different expressions which signal the part. Can you give an example of the expressions signalling each part?



### Task 2

Algebra is a very broad part of mathematics. Write sub-topics of algebra that you have learned or you are going to learn in the available boxes.



Picture 3.3

A L G E B R A	.....
	.....
	.....
	.....
	.....



## B

### Let's Take Action



### Task 3

Below are some nouns that you are going to find in Task 4. Complete the table below and then pronounce the English words. Do it in pairs and ask your partner to check your pronunciation.

No	English	Parts of Speech	Indonesian	Pronunciation
1	branch	noun	cabang	/bra:n tʃ/
2	chart	.....	.....	.....
3	constant	.....	.....	.....
4	issue	.....	.....	.....
5	letter	.....	.....	.....
6	perception	.....	.....	.....
7	phenomena	.....	.....	.....
8	survey	.....	.....	.....
9	value	.....	.....	.....
10	variable	.....	.....	.....



#### Task 4

Listen to the monologue of a student doing presentation and answer the following questions. And share your answer with your friends.

---

#### Questions

1. Who is the presenter?
2. What is the topic of her presentation?
3. How many issues are going to be presented? What are they?
4. What is the speaker's opinion about the topics?
5. Presentation usually consist of some parts, can you guess how many part of her presentation? Mention the part of her presentation.
6. In her presentation, the speaker says "Let's move to next part". What is her intention of saying that sentence?
7. What does the speaker do in the end of her presentation?



#### Task 5

Study the following explanation with your partner.

---



### Useful Expressions for Presentation

A presentation can be divided into some parts: opening, main part and closing. In each part of presentation, you need to use different expressions which are appropriate to be used in the each part.

In doing presentation, you may need a lot of expressions such as expression for explaining something, for describing something, for reading a chart or graph, for making generalization and soon. We will learn the expression for reading charts, graph and etc and the expressions of making generalization in the next tasks in this unit.

Continued....

Below are some examples or useful expression for presentation.

Opening	Main part	Closing
<p><b>Welcoming audience:</b> Good morning/ afternoon, ladies and gentlemen. Hello/Hi everyone. etc</p>	<p><b>Saying what is coming:</b> In this part, I'd like to talk about....</p>	<p><b>Indicating the end of your talking:</b> I'm now approaching the end of my presentation. Well, this brings me to the end of my presentation. That covers just about everything I wanted to say about.....</p>
<p><b>Introducing yourself:</b> Let me introduce myself. I'm..... Let me just started by introducing myself. My name is.....</p>	<p><b>Indication the end of a section:</b> This brings me to end of my first point.</p>	<p><b>Summarizing points:</b> To conclude/ in conclusion, I'd like to..... To sum up (then), we..</p>
<p><b>Introducing your topic:</b> What I'd like to present to you today is..... I'm here today to present... Today, I'm going to talk about...</p>	<p><b>Summarizing a point:</b> Before I move on, I'd like to recap the main points Let me briefly summarize the main issues.</p>	<p><b>Making recommendations:</b> We, therefore, recommend that..... In my opinion, we should.....</p>
<p><b>Structuring:</b> I've divided my presentation into three (main) parts. In my presentation I'll focus on three major issues....</p>	<p><b>Moving to the next part:</b> Let's move on/turn to.... This lead directly to my next point. Let's now take a look at...</p>	<p><b>Generalizing:</b> Broadly speaking,.... Generally speaking....</p>
<p><b>Timing:</b> My presentation will take about 30 minutes. It will take about 20 minutes to cover these issues.</p>	<p><b>Introducing and explaining visual aids:</b> Take a look at this, Let's have a look at this, Here we can see, I'd like you to look at this.</p>	<p><b>Inviting questions:</b> Are there any questions? We just have time for a few questions. And now, I'll be happy to answer any questions you may have</p>
<p><b>Questions:</b> There will be time for questions after my presentation. Feel free to ask questions at any time during my talk.</p>	<p><b>Highlighting and commenting visual aids:</b> As you can see..... I'd like us to look at.....in more detail.</p>	<p><b>Interpreting visual aids:</b> I'm sure the implication of this/the conclusions to be drawn from this are clear to all of us.</p>

*Adapted and Combined from useful phrases for presentation from [www.gnosislearning.com](http://www.gnosislearning.com),  
[www.courseware.zcu.cz](http://www.courseware.zcu.cz) and module of an Introduction of Business English.*



### Task 6

Below is presentation script about sub topic of algebra with some blank spaces. Complete the blanks with the expressions in the Task 4, then act out the script. Ask your partner to check your pronunciation and gestures.

---

.....(1)....., Everyone.

I'm .....(2).....

As you have already known that in Linear algebra, we will meet many of linear equations, from the simple one to the complicated one.

Well, to simplify the cumbersome notation for a system in linear system, we can use matrices. Therefore, Today .....(3)..... the notation of matrices.

In my presentation, .....(4)..... two main issues. First is the definition of matrix. Second is the percentage of students using matrices to simplify linear equations. And my talk ... (5)..... 15 minute.

Well, talking about matrix. What is matrix? A matrix is simply a rectangular array of real numbers. An  $m \times n$  matrix is an array having  $m$  rows and  $n$  columns. Let me give an example:

$$A = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{23} & \dots & a_{2n} \\ \vdots & \vdots & \dots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{pmatrix} \begin{matrix} \longrightarrow \text{row} \\ \\ \\ \downarrow \\ \text{column} \end{matrix}$$

If  $m=n$ , we say  $A$  is square of degree  $n$ . the set of all  $m \times n$  matrices with real entries will be denoted by  $\mathbb{R}^{m \times n}$ , where  $R$  is real numbers.

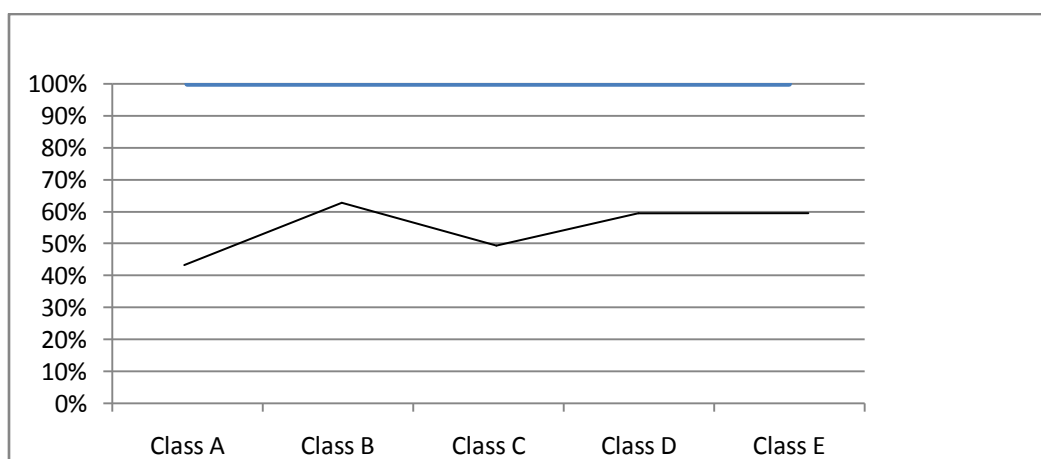
.....(6)..... the next issue.

Take a look on the chart here.

This is the result of my interview to our friends from class A to E regarding of how many students use matrices to simplify linear equations.

Continued....

The chart of the students 'percentage using matrices



The percentage shows the percentage of the number of students who used matrices. The trend shows that in most classes, more than 50 % students use matrix to solve linear equation.

Well, .....(7)..... of my presentation.

.....(8)....., a matrix is a rectangular array of real numbers which usually use to simplify linear equation in linear algebra. And about more than 50% students of mathematics in the semester four use it to simplify linear equation.

Thank you very much.

Quote Corner  
Quote Corner

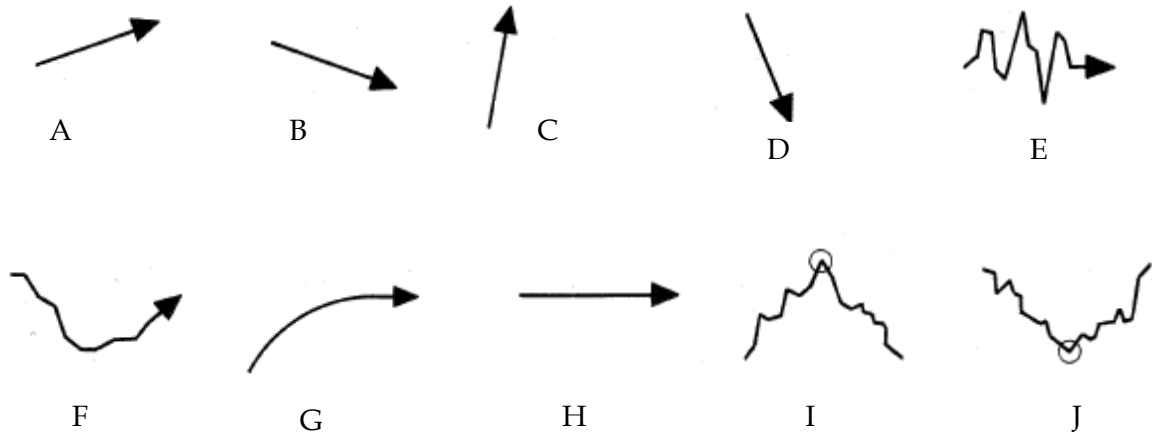
**The more confident a person stands, the more believable what they are saying becomes.**

\_anonim\_



## For Your Information

By using visual aids in your presentation, you have to know how to read them. Below is how to read the change and development in the visual aids.



A increase/rise	B decrease/fall	C shoot up/take off	D plunge / slump	E fluctuate
E Recover/pick up	F stabilize level off	H remain steady	I peak	J hit low

*Adapted from Presenting in English by Mark Powell (2002)*



### Task 7

Study the following sentences and the underlined words. Answer the questions based on the sentences in the box with your partner.

It is because using Gauss's method is fast and easy.

Gauss's method has three operations in solving linear system.

In doing presentation, you may need to use many types of expressions.

1. Do you familiar with the form of the underlined words?
2. In your opinions, what is the part of speech of those words?
3. Do you familiar with gerund?
4. If you have familiar with gerund, what is gerund?
5. Can you give three examples of gerund?



### Task 8

Study the following explanation with your partner.



### Grammar: Gerund

A gerund is a **verbal**. It is a word derived from a verb. Though gerunds are verbal, they act as **nouns**.

For example:

**Cheating** is not allowed in this class.

I enjoy **reading** books.

The form of gerund look identical to present participles (**verb+ing**) but they do not act as present participles. Gerund "**cheating**" acts as a **noun** (subject of the sentence).

The table below shows the positions of gerund in a sentence:

Positions	Examples
Subject of a verb	<i>Cheating</i> is not allowed in the class.
Object of a verb	I enjoy <i>reading</i> books
The complement of to be	His bad act was <i>criticizing</i> too much the presenter.
After prepositions	She is very good in <i>introducing</i> the topic to the audience.
After determiners [a, the, this, some, a lot of]	The <i>talking</i> is very boring.
After adjectives	It was a bad <i>timing</i> to discuss about the matter.
In certain expressions	It's no use <i>trying</i> to help her. It is for <i>pointing</i> to the screen.

Gerunds are often part of phrases for example:

**Arguing about this matter** will not give you advantage.

"**Arguing about this matter**" includes gerund and prepositional phrase, but it is one unit in the sentence acting out as a subject.

*Adapted from Grammar Practice for Upper Intermediate Students By Elaine Walker and Steve Elsworth (2000).*




### Task 9

There are five mistakes on the speakers' lines in the conversation below. Identify the mistakes and correct the words by changing them into gerund and then identify the positions of them based on what you have learned about gerund in the previous task. After that, practise the conversation with your partner.

Adrian is presenting about "Differential Equations Solution" in the class. In the Q&A section, one of his friends asks him some questions.

- Adrian : We will have about 10 minutes for questions in this section. Please feel free to ask me questions related to my presentation.
- Sophie : Well, my name is Sophie. Accord\_to your presentations, there are four kinds of solutions. Can you explain more about the examples of the explicit solution? because I'm still not clear about it and the difference between explicit and implicit solution.
- Adrian : Thank you Sophie, I'll directly answer your question. However, before explain more about the example of explicit solution, I'd like highlight the difference between explicit solution and implicit solution. In the explicit solution, the solution is clear, you can know the answer but in implicit solution you can't. Have look at the examples of both solutions. By look at example A you can directly know y but in the example B, you need to the break down the solution in order to find x or y. Therefore, example A is explicit solution and example B is implicit solution. Does my explanation answer your curiosity, Sophie?
- Sophie : Well, I think I am quite clear about it by listen to your explanation just now. Thank for the enlighten explanation.
- Adrian : You're welcome. Alright, because we're running out the time, let me end this section. Thank you very much for the attention and participation.



Equation :  $\frac{dy}{dx} = -\frac{x}{y}$

has solutions as the following:

Solution A (explicit solution):  
 $y = \pm\sqrt{4 - x^2}$

Solution B (implicit solution):  
 $x^2 + y^2 - 4 = 0$

Picture 3.4



### Task 10

Study the following statements and answer the questions. You are allowed to have discussions with your friends in answering the questions.

#### Statement A:

Generally speaking, Algebra is very broad topic in mathematics.

#### Statement B:

About more than fifty percent of the students of mathematics in the semester four use matrix to simplify linear equations.

1. In which part of presentation do you usually find statement like statement A?
2. Can you guess the function of statement A in a presentation?
3. Do you familiar with the underlined phrases?
4. Those phrases are used to express something. Can you guess what are the functions of them?



### Task 11

Study the following explanation with your partner.



#### Language Function: Making Generalizations

Generalization is a broad statement about a group of people or things. It is a specific kind of conclusion. All generalizations are conclusions, but not all conclusions are generalizations. Generalization is kind of summary.

A generalization is formed from a number of examples or facts and what they have in common. Key words which support instruction for generalization are *all, none, most, many, always, everyone, never, sometimes, some, usually, seldom, few, generally, in general* and *overall*. You can also make generalizations using numbers such as *ninety percent of the students, nine times out of ten...*

Continued....

A true generalization has the following characteristics:

- supported by facts
- agrees with what you already know about the topic
- uses logic and reasoning
- proven with several example

Beside the keywords mentioned before, there are some expressions which can be used to make generalization:

Expressions	Usage	Level of formality
a. In general.....	They can be used in official and scientific writing.	Formal
b. Generally speaking.....		
c. There is tendency for something to.....		
d. On the whole...	It can be applied in some business correspondence.	Less formal
e. What normally happens is...	It is followed by a sentence describing the normal, event, occurrence or situation.	Less formal
f. Usually...	It refers to the high frequency of the statement being true.	Less formal

*Adapted and combined from [www.learner.org](http://www.learner.org), [www.falibo.com](http://www.falibo.com) and Reading Skill Lesson Wetumpka Intermediate School.*



### Task 12

Study the following situations. Make a generalization for each situation orally using the expressions that you have learned in the previous task and ask your partner to check whether your generalizations are valid or not. Situation A has been done for you

A.

I can understand easily the law on the arithmetic operations.  
 My friends can solve the questions easily using the law on arithmetic operations.  
 I haven't heard my friends complaining in studying the law on arithmetic operations.

Generalization:

The law on arithmetic is an easy operation for most of my friend in the class

B.

Students show enthusiasm in studying fraction.  
Students can solve the questions containing fraction with the same denominators in less than 3 minutes.  
Students can solve most the questions given by lectures containing fraction with the same denominators and different denominators.

Generalization:

.....  
.....

C.

Some students say that they need to read the book twice or more to understand quadratic formulas.  
A few of students can solve particular quadratic formulas in less than seven minutes and have right answers.

Generalization:

.....  
.....

D.

The lecture needs two meeting only to discuss linear algebra.  
Only few students get bad marks on linear algebra.  
Students look happy studying linear algebra.

Generalization:

.....  
.....



**“The more that you read, the more things you will know. The more that you learn the more places you’ll go”**

Dr.Seuss



### Task 13

Below is the material for presentation. Make a group of three and each of members should do presentation with the material and using the appropriate expressions that you have learned in the previous tasks. Apply gerund and generalization in your presentation and give your friends feedback for her/his presentation. If necessary, you can add some information related to the material.

#### Linear System and the Gauss's Method

##### Linear system

Linear system is a system which has linear variable

The combination $3x_1 + 2x_2$	They are linear.
$3x_1^2 + 2\sin(x_2)$	They are not linear.

The first example is linear because in each system of the equations involve only the first power of each variable.

##### Gauss's Method

Gauss's method is the fastest and easiest method to solve linear system. Gauss's method is safe to solve linear system because it never losses solution and it never picks up extraneous solution

The Theorem of Gauss's Method:

If a linear system is changed to another by one of these operations

1. an equation is swapped with another
2. an equation has both sides multiplied by a nonzero constant
3. an equation is replaced by the sum of itself and a multiple of another

then the two systems have the same set of solutions

*Adapted from Linear Algebra from Jim Hefferon (2013)*

**C****Let's Do More****Task 14**

Choose one of the topics below and present it in front of the class. Use the expressions that you have learned in the previous tasks and use gerund and generalization in the presentation. You may use power point to help you presenting the topic. The duration of your presentation cannot be longer than 10 minutes.

---

**Basis in Vector Spaces**

A basis for a vector space is a sequence of vectors that is linearly independent and that spans the space.

**Dimension in Vector Spaces**

A vector space is finite-dimension if it has a basis with only finitely many vectors.

**Matrix Multiplication****Classification of Differential Equation**

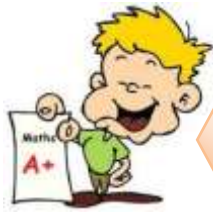
Differential equation is an equation containing the derivatives of one or more dependent variables, with respect to one or more independent variables. Differential equation is classified by type, order, and linearity.

**Autonomous Equation of Differential Equation**

Autonomous equation is an equation in which the independent variables do not appear explicitly.

**Exact equation of differential equations**



**D****Let's Do Evaluation****Task 15**

Work in group of four and do the following activity.

No	How to do
1	Each member of the group should do a presentation.
2	Choose your own topic related to algebra and present it in front of the class. Use the expressions that you have been learned in the previous tasks and apply gerund and generalization in the presentation. You may use power point to help you presenting the topic. The duration of your presentation cannot be longer than 10 minutes
3	The other members should evaluate the presentation. Therefore the presentation of the entire member of the group will be evaluated. Evaluation checklist: <ul style="list-style-type: none"><li>- Topic (is the topic related to algebra?)</li><li>- Expressions (is the presenter using appropriate expressions in every part of her/his presentation?)</li><li>- Does she/he apply gerund in her/his presentation? What are they?</li><li>- Does she make any generalizations on her/his presentation? What are they? Are the generalizations valid/not? Give the reasons.</li></ul>
4	The results of evaluation should be shared in the class.

**E****Homework****Task 16**

Do a survey to five friends who do not join the English speaking club to find out how they do their presentations and ask them whether they use expressions as you have learned in this unit or not and then report the results of the survey in the class

# F

## Let's Make Reflections

You have learned all the tasks in this unit. Make a reflection based on yourself. Put a tick (✓) mark on the column of Yes/No according to the statements.

Statements	Yes	No
I can recognize the expression used for making generalizations.		
I can recognize the expression used for doing presentation.		
I can apply easily the expressions of making generalization in conversations and presentation.		
I can apply easily the expressions used for presentation in a presentation.		
I can recognize and apply gerund in a presentation.		
I can improve my pronunciation.		
I can improve my vocabulary mastery.		

Give your comments about this unit and the difficulty that you have when you learn this unit here:

.....

.....

Name of being assessed: .....

Statement	Name of assessor: .....		Name of assessor: .....		Name of assessor: .....	
was cooperative						
participated actively in the most of activities						
contributed to ideas/planning						
was positive and helpful						
was responsible in doing activities.						

**Making generalization**

Key words of making generalization:

*all, none, most, many, always, everyone, never, sometimes, some, usually, seldom, few, generally, in general and overall.*

A valid generalization is supported by facts, proven with several examples and uses logic and reasoning.

**Gerund**

A gerund is a verbal that ends in *-ing* and functions as a noun. It occupies some positions in a sentence such as, as a subject, as an object, a subject complement (the complement of to be), as object of prepositions (after preposition) and etc.

**Doing presentation**

A presentation is usually divided into three parts which are introduction or opening part, main part and closing part. In each part you need to use different expression and jobs.

In the opening part, you introduce yourself and your topic or even do some brainstorming related to the topic. In the main part, you explain the issues that you take, while in the closing part, you give some conclusion of you have presented and some recommendation (if it is necessary).

## VOCABULARY LIST

English	Parts of speech	Pronunciation Transcription	Indonesian
assign	verb	/ə'saɪn/	menugaskan
branch	noun	/brɑːn tʃ/	cabang
broad	adjective	/brɔːd/	luas
common	adjective	/'kɒm.ən/	lazim
complement	noun	/'kɒm.plɪ.ment/	pelengkap
correspondence	noun	/,kɒr.ɪ'spɒn.dən t s/	korespondensi/ persesuaian
deliver	verb	/dɪ'lɪv.ə r /	mrnyampaikan
denominator	noun	/dɪ'nɒm.ɪ.neɪ.tə r /	bilangan penyebut
equation	noun	/'kweɪ.ʒ ə n/	persamaan
exercise	noun	/'ek.sə.saɪz/	latihan
extraneous	adjective	/'ɪk'streɪ.ni.əs/	tak berhubungan
figure out	verb	/'fɪg.ə r aʊt/	menemukan
instruction	noun	/ɪn'strʌk.tʃ ə n/	instruksi
major	adjective	/'meɪ.dʒə r /	penting
noise	noun	/nɔɪz/	kegaduhan
occurrence	noun	/ə'kʌr. ə n t s/	kejadian
official	adjective	/ə'fɪʃ. ə l/	resmi
phenomena	noun	/fə'nɒm.ɪ.nə/	kejadian/gejala
quiet	adjective	/'kwaɪət/	tenang
review	verb	/'rɪ'vjuː/	tinjauan
submit	verb	/'səb'mɪt/	menyerahkan
scientific	adjective	/'saɪəntɪf.ɪk/	ilmiah
surface	noun	/'sɜː.fɪs/	permukaan
theorem	noun	/'θɪr.ə.m/	dalil
value	noun	/'væl.juː/	nilai
weightlifting	noun	/'weɪt,lɪf.tɪŋ/	angkat beban

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## The List of Pictures

### Cover

- Picture 1 : Taken from [www.google.com](http://www.google.com)
- Picture 2 : Taken from [www.ceist.ie](http://www.ceist.ie)
- Picture 3 : Taken from [www.marion.com](http://www.marion.com)

### Unit 1

- Picture 1.1 : Taken from [www.olnefriends.org](http://www.olnefriends.org)
- Picture 1.2 : Taken from [cjreach.wordpress.com](http://cjreach.wordpress.com)
- Picture 1.3 : Taken from [www.ppst.com](http://www.ppst.com)
- Picture 1.4 : Taken from [www.marion.com](http://www.marion.com)

### Unit 2

- Picture 2.1 : Taken from [www.google.com](http://www.google.com)
- Picture 2.2 : Taken from [www.google.com](http://www.google.com)
- Picture 2.3 : Taken from [www.google.com](http://www.google.com)
- Picture 2.4 : Taken from [www.kwisnet.com](http://www.kwisnet.com)

### Unit 3

- Picture 3.1 : Taken from [blog.loyola.edu](http://blog.loyola.edu)
- Picture 3.2 : Taken from [primarytech.global2.vic.edu](http://primarytech.global2.vic.edu)
- Picture 3.3 : Taken from [primarytech.global2.vic.edu](http://primarytech.global2.vic.edu)
- Picture 3.4 : Taken from [www.google.com](http://www.google.com)

## Appendices

### UNIT 1: Task 4

Colby and Fita are roommate. They attend the same college. They even go to the same department which is mathematics department. Now, they are studying for tomorrow's class.

Colby : Have you read some materials for the next meeting?

Fita : Yeah, a bit. But those materials are very complicated.

Colby : What about read mine? I got them from internet and they're simpler than yours.  
They explain about integer in a very simple and clear way.

Fita : I think that's a good idea. Thank you.

Colby : Anytime. I believe that studying integer will not be boring.

Fita : Really? Why?

Colby : You have read some materials about it. Don't you find it interesting?

Fita : As I see it, it's quite interesting but it will no longer interesting if this time the professor gives us abundant assignment as before.

Colby : Don't you think that you're exaggerating?

Fita : Not really.

Colby : Integer is a number that can be written without fractional or decimal component.  
I think it's quite easy and interesting though may be the professor will give quite a lot assignments.

Fita : Why are you so interested in Integer?

Colby : Because it is applicable for our daily life, that's why I like it. As you know that studying integer means dealing with negative and positive number. In our daily life those number are needed to represent physical quantities for example in temperature, altitude and the amount of money.

Fita : Can you explain it more?

Colby : No problem. For example, you can say "the altitude of death valley is 282 feet below the sea level meaning that the altitude is minus 282 feet.

Fita : I got it, so if the temperature in Chicago is 10 degree of Fahrenheit below zero meaning that the temperature is minus 10 degree of Fahrenheit?

Colby : That's right.

Fita : That's quite easy but we are not only going to study about those kinds of things right?

Colby : Of course not. I've already read it that we are going to learn how to add and subtract integer and also multiply and divide integer. What do you think?  
It's interesting, isn't it?

Fita : I'm not sure.

Colby : Are you afraid of this?

Fita : Just a little bit.

### UNIT 1: Task 8

- Ashley : Have you read the paper that the professor assigned for tomorrow class? I think it's quite interesting.
- Sinta : No. Not yet. What is it about?
- Ashley : It's about integers. There are some questions that should be solved in pairs and we are going to have group discussion tomorrow.
- Sinta : Well, to my mind, it isn't interesting at all.
- Ashley : By the way, let's study together. We need to solve all the questions.
- Sinta : All right, professor sometimes likes to give unexpected questions to his students.
- Ashley : What about dividing the questions? Each of us do five questions.
- Sinta : I believe we'll get better understanding if we discuss it together.
- Ashley : All Right, then.
- Sinta : Are decimals, fraction and percents included in integer?
- Ashley : No, Integers are whole numbers and their negative opposites.
- Sinta : Meaning that it includes positive whole numbers, negative whole numbers and zero?
- Ashley : That's right.
- Sinta : Do you know the symbol representing integer?
- Ashley : Well, I've read the materials about it before. Hmmmm...it's alphabet zi, capital zi. Zi stands for Zahlen, it's used to denote set of integers.
- Sinta : I see. It's quite easy. What do you feel?
- Ashley : I feel the same as you.
- Sinta : What issues do we have to solve on integers?
- Ashley : Not so many. It's about adding, subtracting, multiplying and dividing Integers, especially the roles of all of them.
- Sinta : There is only 15 minutes left before the next class start. Let's continue our discussion after the class ends.
- Ashley : Okay.



## UNIT 1: Task 12

<p>Flo</p> <p>You wouldn't mind if Sam or Alex gets the position. Sam is very efficient and Alex is a nice cheerful person. But you're hope that it's not Terry or Pip. Terry is very bad-tempered and Pip is hopeless at figures</p>	<p>Sam</p> <p>You wouldn't mind if Alex or Terry gets the position. Alex is a cheerful sort of person and Terry is good-natures. But you hope it's not going to be Pip or Robin. Pip is absolutely hopeless at figures and Robin is so rigid and narrow-minded.</p>
<p>Alex</p> <p>You wouldn't mind if Terry or Pip gets the position. Terry is very good-natures and kind and Pin is very careful; and precise: very good with figures. But it would be a disaster to have Robin is so narrow-minded and Jan is so careless and disorganized.</p>	<p>Terry</p> <p>You wouldn't mind if Pip and Robin gets the Job. Pip is very careful and precise: very flexible and open-minded. But it would be terrible if Jan or Chris got the positions. Jan is totally disorganized and Chris is so pompous.</p>
<p>Pip</p> <p>You wouldn't mind if Robin or Jan gets the positions. Robin is a very tolerant and flexible person. Jan is very organised. But you'd hate to have to work for Chris or Flo. Chris is so unbelievably pompous and Flo is so indecisive.</p>	<p>Robin</p> <p>You wouldn't mind if Jan and Chris gets the positions. Jan is very competent and organized and Chris is a nice, unpretentious down-to-earth sort of person. But it would be disaster if Flo or same got the position. Jo is weak and indecisive and Sam is very inefficient.</p>

## UNIT 2: Task 4

Devi and Grace are doing their homework to create quadrilateral family tree from their professor.

- Devi : Grace are you sure we are able to finish all of these this afternoon? We haven't classified the quadrilaterals yet and we have to create each shape of them precisely. You know that the professor is very thorough. He won't leave any single part.
- Grace : I know but don't worry I have got the design for creating quadrilateral family tree. Just follow the design.
- Devi : All right then, what about classify the shapes first and determine their measurements so that we will find out how many papers we need to make the family tree.
- Grace : let's do so. Shall we start right now?
- Devi : sure.
- Grace : Well, we will do with four-sided polygon so it will be simple.
- Devi : Then, let me write down the classification.
- Grace : Four-sided polygon is divided into three. They are parallelogram, kite and trapezoid. Parallelogram and trapezoid are divided again based on their types. Parallelogram has two types, rectangle and rhombus. All of them are

square. For the trapezoid, there are two types as well, right trapezoid and isosceles trapezoid.

Devi : What about kite?

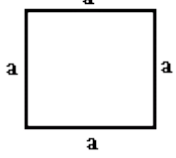
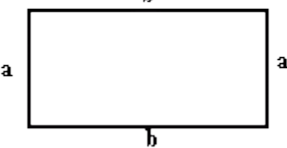
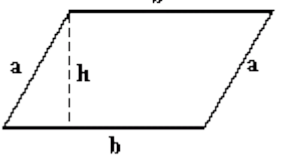
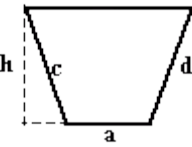
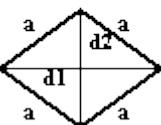
Grace : Kite is only kite. It is not mentioned in the book that kite has various types.

Devi : Then we need four different colors of papers. One for the base, the thicker paper and the rest will be for each type.

Grace : Sounds good. Lets' buy them right now. I'll get the motorcycle key in my brother's room.

Devi : Alright.

### UNIT 2: Task 7

<p style="text-align: center;">Square</p> 	<p>Square</p> <p>Area : <math>a \times a</math></p> <p>Perimeter : <math>a+a+a+a</math> : <math>4a</math></p>
<p style="text-align: center;">Rectangle</p> 	<p>Rectangle</p> <p>Area : <math>a \times b</math></p> <p>Perimeter : <math>a + b + a + b</math> : <math>2(a+b)</math></p>
<p style="text-align: center;">Parallelogram</p> 	<p>Parallelogram</p> <p>Area : <math>b \times h</math></p> <p>Perimeter : <math>a+b+a+b</math> : <math>2(a+b)</math></p>
<p style="text-align: center;">Trapezoid</p> 	<p>Trapezoid</p> <p>Area : <math>\frac{1}{2} \times (a+b) \times h</math></p> <p>Perimeter : <math>a+b+c+d</math></p>
<p style="text-align: center;">Rhombus</p> 	<p>Rhombus</p> <p>Area : <math>\frac{1}{2} (d1 \times d2)</math></p> <p>Perimeter : <math>a+a+a+a</math> : <math>4a</math></p>

## UNIT 2: Task 12

### First conversation

Zeta is asking for suggestions to his brother's friend. He is seven years older than Zeta.

- George Wiggins : Hi, Zeta. Is your brother's home?  
Zeta : He's going to the supermarket with mom. He said they will be home in 10 minutes. Please, come in.  
George Wiggins : Thank you.  
Zeta : Well, my brother said that you like math.  
George Wiggins : Yeah...  
Zeta : Actually, I got assignments from my lecture. If you don't mind, would you like to help me?  
George Wiggins : Sure.  
Zeta : I find it difficult to solve this question. Could you give suggestions how to solve the question?  
George Wiggins : You know how to find area and perimeter of parallelogram, right?  
Zeta : Yeah...  
George Wiggins : First, what about find AE?  
Zeta : I've found AE. It is 5 cm but I am bit confuse about CB. Should I convert the root form?  
George : You can just write in the root form.  
Zeta : Oh I se. AD and BC are parallel so BC is 13. Well, I think I know how to solve the question now.  
George : You could change  $\sqrt{27}$  into  $3\sqrt{3}$ .  
Zeta : All right, thank you for your suggestions.  
George : Not at all.

### Second conversation

Yasmin is having a discussion with her friend about the topic that has been explained by their lecturer.

- Yasmin : I haven't understood yet about what had been explained by Mr. Holmes. I often get troubles with angles.  
Jane : I think angles in quadrilateral are quite simple. Shall we study together, now? The next class is two hours later from now.  
Yasmin : That's good idea. Let's sit at that bench.  
Jane : All right, then.  
Yasmin : Can you explain how to solve this question?  
Jane : This is trapezoid. You may add a new dot as E, then draw line from C to E. Line CE is parallel to Line DA so both of them are 12 cm. To find out EB you can subtract AB with DC, so EB is 5.  
Yasmin : Then, I can find line CB by using Pythagoras, right?  
Jane : That's right. But why don't you find the angle by using tangent of C angle so you don't have to find line CB.  
Yasmin : Oh, I see.  
Jane : Remember. The sum of angles in a triangle is 180 degree.  
Yasmin : Yeah. In the end, I can find angle B by subtracting 180 with angle E

and C.  
 Jane : That's right.  
 Yasmin : You're so clever, Jane. Thank you.  
 Jane : Any time.

### UNIT 2: Task 13

<p>Book 1          The language is complicated, so it's a bit difficult to understand the explanation but the book provides detail examples.          Price: Rp. 45,000</p>	<p>Book 2          The language is middle level. The explanation is clear but it provides less examples.          Price: Rp. 50,000</p>
<p>Book 3          The language is easy but the explanation and the examples are not detail.          Price: Rp. 42,500</p>	<p>Book 4          The language is middle level, the explanation and the examples are detail and clear.          Price: Rp. 47,500</p>

### Unit 3: Task 4

There is a student who is doing presentation about a topic in mathematics.

Morning Everyone,

I'm Irina Blacksmith. As students of mathematics Education department, we study some subjects which are related to algebra or even the subjects which belong to subtopics of algebra. Therefore, Today, I'm going to talk about algebra. In my talk, I'll focus on two main issues. First is algebra and the second is the results of my survey in figuring out my classmates' perception about algebra. My talk will be about 15 minutes. If you have questions, please save your questions for the Q&A section.

Let's move to next part. Well, what is algebra? Algebra is a branch of mathematics that uses letters in place of some unknown numbers. What's need to remember that most of the letters used in algebra have two functions. First is as variable in which the value of the letter can change. The second is the letters that stand as constants where the value does not change.

I've read some articles about the history of algebra and I'll tell the result of my reading that at first, algebra is similar to arithmetic in which, as I mentioned before, letters are used to replace numbers. However, as it is developed, algebra extends to non-numerical object such as linear algebra and abstract algebra. Those two branches of algebra are the topics that students usually learn in college.

I'm sure that most of the students here have been familiar with algebra because many of us have studied algebra, unconsciously, since we were in senior high school.

We, right now, are studying linear algebra and later on we are going to study abstract algebra. While studying linear algebra I see phenomena on our classroom that many of students included me find this topic as quite difficult topic. What usually happens when students find a difficult topic is they study it diligently or they feel unmotivated in studying it. What happens to us is 50:50. You can have a look at this chart that fifty percent

of the students study it diligently and practice them again and again. On the other hand, another fifty percent of them tend to avoid the topic. They don't feel motivated on studying it. I gathered some comments from them and they said "another day passed and I didn't use algebra once", "linear algebra is like weightlifting for my brain" and etc. Moreover, I found a note of one of them that "Algebra please stop ask me to find  $x$  because she will never come back". That's quite funny note, isn't that?

Friends, well, that brings me to the end of my presentation.

Generally speaking, Algebra is very broad topic in mathematics. It is a branch of mathematics which uses letters to substitute unknown numbers and algebra has some subtopics. And talking about the phenomena in this classroom, many of our friends find linear algebra as difficult subject but there are two patterns of them in facing the topic which are they diligently study the topic and some of them complain a lot in studying the topic.

So, for those who find it difficult in studying linear algebra, I recommend you to join Study Club, because in the study club we share, discuss and solve together our difficulties in learning mathematics. Moreover, it's so much fun to study together. Thank you very much.