

## English Instructional Materials: Imperative Learning Aid for the High School Bound Summer Program of the MSU-Science High School

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### Abstract

This study was conducted to meet the long-felt need of the MSU-Institute of Science Education-Science High School to have English instructional materials that will be used for its High School Bound Summer Program. The descriptive method of research and a quantitative analysis of the performance of the respondents on the Proficiency Test were used in this study. The inquiry started off with a needs analysis through a proficiency test administered to the Grade VI pupils of MSU-Integrated Laboratory School (ILS), Ibn Sienna Integrated School, Foundation (ISISF) and Ranao Child Development Center (RCDC). A modified proficiency test was used in this study. To establish reliability and validity, it was patterned after the English Language Proficiency Test (ELPT) of the Language Center of MSU-College of Social Sciences and Humanities. The proficiency test consisted of three parts: Test of Language Use (TLU), Test of Written English (TWE) and Test of Spoken English (TSE). Each respondent was given an answer sheet for Parts I and II. By means of stratified random sampling, a smaller number of respondents drawn from the original sample of 263 respondents were selected to take Part III which was in the form of an interview. Their answers were tape recorded and then evaluated and rated by three (3) competent faculty members. The needs analysis yielded the following findings: majority of the respondents of the three elementary schools have a minimum knowledge about the structure of English language such as sentences, clauses, vocabulary and reading comprehension; majority of the respondents have attained only low proficiency levels in writing; and majority of the respondents displayed hesitations and difficulty in listening and speaking. In short, there is a serious problem in English language proficiency of the respondents in terms of writing, listening and speaking. Based on the overall result, majority of respondents could be said to be suffering from what is known as Limited English Proficiency (LEP) and are likely at risk for learning disabilities or failure. Although no single cause could be pin-pointed, it can be hypothesized that impoverished background and inadequate training are contributory factors. The problem can be remedied by addressing the students' weaknesses. Materials can be designed for this purpose. Hence, better performance in English language proficiency is possible if lessons and activities address the needs of the pupils.

**Keywords:** English Instructional Materials, Learning Aid, Instructional Design, Language Materials, Learning Instruction

## Introduction

Experts vehemently expressed English as the language of the global village. This is particularly true in the domain of Science and Technology, especially in the pure and applied sciences. A knowledge of English is often required if one wants to publish in the influential journals. It is undeniable that English language is the medium of instruction and increasingly used in publications. The rationale of putting science and technology to work more constructively and humanely in the context of education English language takes on greater significance and urgency. This fact is true in the Philippine setting. However, according to Joel Adriano in his article, "The Philippines: Still Grappling with English," in the 2009 annual international student performance tests in math and science Filipino students obtained a lowest scores. What could be the probable causes? Accordingly, policy experts believed that this low performance was attributed to language difficulty especially English language that is used for instruction. Shifting from home language to another language used as medium of instruction requires adjustment; the shift creates a problem that could have dire consequences for academic performance. Language is obviously a vital tool (Brown, 2000).

One must understand that English is not just a subject; it is also a means of communicating thoughts and ideas, but it also establishes identity, promotes economic growth and sustainability, and forges friendships and cultural ties. John Stuart Mill as cited by Brown (2000) further said that language is in the light of the mind that enable individual to communicate each other. A mentor of Whorf also noted that language is not only a vehicle for the expression of thoughts, perceptions, sentiments and values characteristics of a community but it also represents a fundamental expression of social identity. The position of English in some of the sciences is even more solidly rooted. Many articles local, national and international are published in English. Even in smaller nations or scientific societies, like those of Slovenia and the Philippine's "Bato Balani" are published in English. However, the worth of science lies in how people would embrace its vitality in their lives for there is a need for economic competitiveness and this need will continue to grow as the world continues to become more technology dependent and need more science literate workers. This essential competitiveness is made possible through education.

A famous Chinese statesman once said that if the rest of the world like Asia will catch up and surpass the advanced countries in science technology, they must significantly improve not only the quality of education but also the quality of communication which is the English language. Thus this study takes this challenge as its point of departure since this is important in education. Accordingly, education exemplifies the methods of imparting knowledge, culture and values from one generation to the next. Education and language learning is the best and effective way in doing progressions in all intuitions and other sectors. That is, language plays a vital role in effectively gearing the actuality and action of communication and learning.

As language experts have restated the ease for education, the legitimate and inevitable function of education is to cultivate character. This summarizes the intent of the study as it is envisioned to be of help by designing and providing instructional materials that integrate meaningful content and language objectives and addressing a particular need in the MSU-Science High School.

## Theoretical Framework

An authenticity of a language learning situation is reinforced with different factors involving learning and educational theories (Gagnè, 1985). One very important theory is progressivism. This theory stresses that all learning should center on the child's needs and interest (Dewey, 1916). Progressive education also emphasized on the needs philosophy based upon experience,

the interaction of the person with his environment. Progressivism primarily aims to meet the learning needs of a growing child. This has been supported with the learning theory called constructivism. This theory is greatly influenced by Piaget's (1950) and Lev Vygotsky's (1978) Zone of Proximal Development (ZPD). According to them, knowledge is a product from different activities practiced by the learners in a social environment. Constructivist emphasized the learner centered approach in teaching-learning process.

In the last 100 years, three major schools of learning theories have emerged (Ornstein, 1990). These formulations provide theoretical grounds for this study. First, the behavioral theories see learning in terms of changing what people do. They emphasize behavioral modification through conditioning by means of reinforcement. Second, field and gestalt theories consider how the individual perceives the learning environment or situation. They emphasize observational learning, imitation and modeling. Third, cognitive theories consider how the learner thinks, reasons and transfers information to new learning situations. The rapid turnover or succession of language teaching methods is a proof of dynamism, vitality and vibrancy in the field of language pedagogy.

The search for methods, approaches, strategies and materials to facilitate, enhance and maximize language learning is relentless; it is pursued with great expectations. However, experts emphasize that the current theories which suggest that humans have the unique species-specific ability to test various hypotheses about the structure of language are indispensable. Emphasis must be put also on Thorndike's law of readiness which is an important condition of learning because satisfaction or frustration depends on an individual's state of readiness. It focuses on the idea that to do so is satisfying; not to do so is annoying. In other words, it is unlikely that learners will acquire a new pattern unless they are developmentally ready for it. It is primarily on this that the value of the study hinges – i.e. the learners must be ready to undergo rigid academic training with the aid of instructional materials. In the recent language learning continuum, a learner is considered as an active learner.

Current linguistic and psycholinguistic theories suggest that efforts to teach language to human learners should actively engage them in the learning process. Such active engagement consists of providing opportunities to explore and implore about language rather than simply requiring learners to memorize bits of language. With the dynamism of language and systematic changes in knowledge, materials for teaching language should be designed to fit the varying developmental levels of children within a classroom. The Concept Underlying Instructional Materials In the course of the history of language learning and teaching, instructional materials played an important role to achieve meaningful learning. Tomlinson (2004) aptly expressed that instructional materials provide procedural frameworks for the systematic production of instructions. They give structure and meaning to instruction. Bruner (1975) believes that people should learn a foreign language for performing different functions. Learning language could be best facilitated through authentic teaching. Nunan (1992) said that authentic learning materials should be natural used or introduce in class.

Fradd & McGee (1994) has demonstrated that instructional materials are to be prepared by teachers. Furthermore, Reiser & Dempsey (2007) emphasized that materials should be as authentic as those from real life language situation. Tomlinson (2004) added that materials should provide sources of language input and exploit the said sources to maximize learning. Hence, designing instructional materials imperative in learning that can be deliberately use to facilitate instruction and discussion so as to increase learners' knowledge and interest in learning is very much important.

Generally, in language teaching and learning, the elements such as students and instructional materials coupled with the curriculum offered are intertwined with instructional materials in the frontlines or forefront of a successful learning process. There are benefits of a good learning product through an effective good instructional material: the learning material meets the needs of the learner; and make them feel stimulated and eager to learn. Nunan (1992) stressed that the instructional materials should not only encourage the students to help one another but also increase motivation to learn; the instructional materials should allow students to focus on the formal aspects of language; the instructional materials should provide students with efficient learning strategies and; the instructional materials should encourage students to apply their developing language skills to the real world, a world beyond the bounds of the teachers and classroom. Bloom (1976) believed that in the designing and construction of materials, one should not lose sight of the fact that there are faster and slower learner instead of thinking that learners are good and poor. He considered the role of attitudes in the instructional process as equally important as the learners themselves.

Contemporary educators encourage teachers to rethink their approach, using well-planned and well-designed instructional materials especially in a specialized science curriculum high school. These will be a bridge to learning and doing mathematics and science. Educators have this perspective as an area of agreement: "We can begin to envision pedagogical possibilities that are built on the instructional materials as an intellectual resource" (Reiser & Dempsey, 2007). Effective instructional materials should be based on current and confirmed research; designed to ensure that all students master each of the English language content; reflects and incorporate the content of the language; sufficient instructional time is allotted to content standards with a clear prerequisites; includes activities that relate directly to the learning objectives; grammar and spelling is properly correct; and it provide strategies for teachers and students to develop critical thinking.

Aside from curriculum planners, teachers and students are also vital a factor in successful language teaching and learning processes. This involves their learning needs, abilities and interests. It is not the quantity of students that justifies the quality of performance but it is the quality of students. As expounded by language experts, students' everyday experiences and first language can and do serve not only as obstacles but also as resources. Their interests as well as their experiences mean something in learning environments.

## **Method**

### ***Respondents***

The respondents were the Grade VI pupils of the three elementary schools in the Lanao area, namely: Mindanao State University-Integrated Laboratory School (MSU-ILS); Ibn Sienna Integrated School, Foundation (ISISF) and Ranao Child Development Center (RCDC). The respondents were assumed to have a general knowledge in science. This assumption is based on the record or reputation of the schools from which the sample used in the study was drawn.

### ***Design and Procedure***

The study employed the descriptive method of research with a quantitative analysis using statistical tools by means of a thorough analysis of the English needs of the incoming freshmen students of the MSU- Science High School as a basis for the preparation of English instructional materials to be used in its High School Bound Summer Program. This study set out with a needs analysis through a proficiency test administered to the respondents. The descriptive research design was used to treat data on the needs analysis.

There were two (2) stages in the conduct of this study: (1) establishing the need for English instructional materials and the needs analysis of the respondents through a proficiency test; and (2) the designing and developing of instructional materials based on the needs analysis conducted.

The number of the respondents was determined by Sloven's formula with two hundred sixty-three (263) out of a population of Grade VI pupils totaling 460, were randomly selected. Using the formula, a sample of 263 respondents was drawn from the population of the study. From this number, a smaller sample -- 65 or 20%-30% -- was drawn for interview to assess their listening and speaking skills. The selection for this data-gathering stage was done through stratified random sampling.

To gather the needed data, the researcher used a modified proficiency test based on the English Language Proficiency Test (ELPT) of the Language Center of the College of Social Sciences and Humanities, Mindanao State University. The ELPT as a standardized test consisted of three parts: Test of Language Use (TLU), Test of Written English (TWE) and Test of Spoken English (TSE). It aims to measure the test taker's macro skills, namely, reading, writing, listening and speaking. Specifically, the TSE measures the listening and speaking skills of the test takers; the results of which were evaluated and rated by competent raters. The rubric of the level of proficiency is shown in Table 1.

Table 1  
Levels of Proficiency

HIGH ADVANCE	-displays fluency with no hesitations in speaking, employs complex sentences with no grammatical lapses, uses a wide range of vocabulary, comprehends fully the task given, produces clear, crisp and correct sound of English.
LOW ADVANCE	-is fluent with very minimal or no hesitations in speaking, employs complex sentences with very few or no grammatical lapses, uses a wide range of vocabulary, completes the task given, produces clear, crisp and correct sound of English.
HIGH INTERMEDIATE	-displays a degree of fluency with occasional hesitations in speaking, employs complex or often simple sentences with very few or no grammatical lapses, uses a variety of vocabulary, completes the given task, produces mostly clear and correct sound of English.
LOW INTERMEDIATE	-displays a considerable degree of fluency with some hesitations in speaking, employs simple sentences and/or with occasional fragments and other grammatical lapses, uses a variety of vocabulary, almost completes the given task, produces clear but with occasional errors in the sound of English.
HIGH BEGINNER	-displays hesitations in speaking.
LOW BEGINNER	-displays difficulty in speaking.

## Results and Discussion

Table 2  
Frequency and Percentage Distribution of the Respondents According to Reading Skill

Level	ILS	ISIS	RCDC	TOTAL	Percentage
High Advance	0	0	0	0	0
Low Advance	2	0	0	2	0.76
High Intermediate	14	24	3	41	15.59
Low Intermediate	71	96	10	177	67.30
High Beginner	21	17	5	43	16.35
Low Beginner	0	0	0	0	0
TOTAL	108	137	18	263	100

Table 2 posited that a considerably large proportion of the respondents fall in the low *intermediate* and *high beginner*. This suggests a serious proficiency deficiency. The data presented reveal that majority or 63.3 percent of the respondents do have a minimum required knowledge of the structure of the English language, such as grammar, vocabulary and reading comprehension. The data further reveal that 15.59 percent of the respondents are considered average learners and less than 1 percent of the total number of respondents is above average. Specifically, the figures from MSU-ILS were heavily concentrated in the low intermediate and high beginner levels of proficiency. This result is alarming. At their grade level, the respondents are already expected to have a minimum knowledge of the basic structure of the English language.

These imply that in terms of reading skill, the respondents have the basic skills in reading with only few of them having the ability to do more than is required and expected of them. But it is sad to note that as the data show, there were still many among the respondents who were below the required and acceptable level of proficiency in reading. Hence, there is basis or warrant for the conclusion that there is a need to maximize learning potentials of the pupils in terms of exposure to the use of the language. They should be exposed to a variety of inputs in English.

Table 3  
Frequency and Percentage Distribution of the Respondents According to Writing Skill

Level	ILS	ISIS	RCDC	TOTAL	Percentage
High Advance	0	0	0	0	0
Low Advance	0	0	0	0	0
High Intermediate	4	14	0	18	6.84
Low Intermediate	17	46	2	65	24.71
High Beginner	82	76	13	171	65.02
Low Beginner	5	1	3	9	3.42
TOTAL	108	137	18	263	100

Table 3 shows that 9 (3.4%) of the total number of respondents are *low beginners*; 171 (65%) are *high beginners*; 65 (24.71%) are *low intermediate* learners and 18 (6.84%) are *high intermediate* learners. The overall result implies that more than half or 68.4 percent of the respondents are considered to experience difficulty and hesitations in writing. This means that most of the respondents

could hardly put into words their thoughts in an organized manner with English as a medium of communication. Specifically, the data from the MSU-ILS show that majority of the respondents have low proficiency level in writing and only few are classified as average. This clearly means that the respondents have weak background in writing. On the other hand, the data from ISISF show that majority or 56.2% of the respondents have difficulty in writing. The figure compared with MSU-ILS is smaller, which means that in terms of writing skill, the ISISF sample was far better. The data from RDCD reveal that only 2 respondents have a minimum knowledge in writing. The rest of the respondents are considered to experience more serious difficulty and hesitations in writing.

From this can be deduced that there is a grave problem among the respondents in terms of writing skill. The problem can be attributed to a host of problems, among which are pupils' interest in and focus on writing, language use, exposure to writing, poor comprehension, teaching materials and teacher's teaching strategies. This is a serious problem considering the multiplicity of writing tasks high school students are required to do like reports, research papers, critical analysis, essays and answering test questions and various write-ups. The overall result shows lack of preparation for these tasks.

Table 4  
Frequency and Percentage Distribution of the Respondents Based Listening and Speaking Skills

Level	ILS	ISIS	RCDC	TOTAL	Percentage
High Advance	0	0	0	0	0
Low Advance	1	0	0	1	1.54
High Intermediate	0	0	0	0	0
Low Intermediate	6	2	0	8	12.31
High Beginner	14	26	5	45	69.23
Low Beginner	9	2	0	11	16.92
TOTAL	30	30	5	65	100.00

Table 4 shows that 11 (16.9%) out of the 65 respondents interviewed are *low beginners*; 45 (69.2%) respondents are *high beginners*, and 8 (12.3%) are *low intermediate* learners. There is only one respondent who is considered a *low advance* learner. These data show that majority or 86.1 percent of the total number of respondents have deficiency in listening and speaking, a receptive (passive) and productive (active) skill, respectively. This means that more than 75 percent of the respondents display difficulty and hesitations in speaking as they listen. Poor background and less exposure to the use of English in speaking are some of the factors that contributed to this problem.

Hence, it could be inferred that there is a common problem among the Grade VI pupils in the Lanao areas that needs to be addressed in these skills. This means that generally in the classroom situations where English is used as a medium of instruction and communication, the respondents experience difficulty both in listening and speaking. English being a second language poses difficulties to Filipino students who are not native speakers of the language. This problem can be partly accounted for by the home language. School language shift can be a strain for many students. The shift does not happen automatically and smoothly. Accordingly, learners experience much strain or pressure in learning lessons through a language different from, or other than, their first language.

In general based on the results of the proficiency test, there is a need to enhance the pupils' macro skills in terms of writing, listening and speaking skills. These skills are necessary to achieve language competence in high school years. To maximize the learning potentials of the students in terms of writing, reading, listening and speaking, they must be exposed to a variety of teaching methodologies and learning principles that enhance learning. Hence, deficiency in writing, listening or speaking can be remedied. Moreover, the study of Brandford (1998) supported the findings of the present study. He has cogently argued for multiple accesses to ideas media using different media and a rich learning context enriched with examples and explanations. Although as pointed out by contemporary researches, second language learning is affected by culture, instruction and assessment. This should not be a hindrance to successful second language learning.

### **Conclusions**

On the basis of the findings, analysis and interpretations of the data, the following conclusions are drawn:

1. There is a serious problem regarding English language proficiency of the respondents in terms of writing, listening and speaking skills. Majority of the respondents from all three schools are diagnosed for Limited English Proficiency (LEP). There is, in fact, a high probability that a more thorough investigation could reveal more serious weaknesses or deficiencies e.g. pidginized English;
2. Better performance in English language proficiency is possible if lessons and activities address the need of the pupils;
3. Majority of the respondents are likely to experience greater difficulties as they advance to higher grade levels and encounter increasingly cognitively demanding tasks.

### **Recommendations**

In the light of the aforementioned findings and conclusions drawn from the study, the following recommendations are presented for serious consideration of all stakeholders in the education of the young:

1. The pupils of the Lanao areas should be given more support to help English language skills since language is an indispensable tool. They must be immersed for a long time in the target language to develop competence in oral and written communication;
2. Parents, teachers and school administrators should work hand in hand in a concerted effort to cultivate learners' competence in reading, writing, listening and speaking;
3. Parents should support their children by providing a variety of good reading materials at home and exposing them to the use of the target language. They should be good models themselves. The stimulation provided by the immediate environment can hardly be emphasized;
4. Teachers should provide interactive, integrative and communicative learning situations for their pupils. They should continuously seek furtherance of their training and growth by attending seminars and workshops to gain more knowledge and skills in language teaching to benefit not just themselves but also the students;
5. School administrators should take it upon themselves to create the conditions conducive to effective teaching and learning – e.g. providing essential facilities, such as a rich and updated library, modern laboratories, furnished with computer units, projectors, and the like;
6. Researchers should use the information or result from the study to conduct similar studies to enable to realize the need for English instructional materials;



7. Similar studies should be undertaken involving other feeder schools in Lanao areas to determine or assess the state of affairs in these schools and discover similar or distinctive features/problems and work out solutions to these;
8. Further efforts should be exerted to assess the needs of the respondents in terms of subject matter or topics (e.g. tense, subject-verb agreement, punctuations and pronoun-antecedent-agreement) in the English language.

In view of the findings of the study, the proposed English Instructional Materials to be used in the High School Bound Summer Program of MSU- Institute of Science Education – Science High School is strongly recommended for review and be used for the purpose it was intended to serve.

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