Strand Specificity and Perceived Effectiveness of Language Activities in the Senior High School English Instruction

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ABSTRACT

This paper examined the level of strand specificity and perceived effectiveness of language activities in the Senior High School English for Academic and Professional Purposes (EAPP) instruction. Specifically, it determined if a difference exists in the level of strand specificity and perceived effectiveness of language activities and if there is a relationship between the two variables. Adhering to descriptive-comparative and correlational research designs, this study used a researcher-made questionnaire conducted to 79 Grade 11 Science Technology Engineering and Mathematics (STEM) students. The findings revealed a high level of strand specificity and perceived effectiveness of EAPP language activities, both when taken as a whole and grouped as oral or visual. Furthermore, no significant difference exists both between the level of strand specificity of oral and visual language activities and their perceived effectiveness. Finally, strand specificity and perceived effectiveness have a moderately positive significant relationship.

Keywords: Language Education, Strand Specificity, Language Activities, English for Academic and Professional Purposes, Negros Occidental, Philippines

Date Submitted: March 25, 2019
Date Revised: June 16, 2019
Date Accepted: July 10, 2019
1.0. Introduction

In today's globalized era, the English language is deemed significantly pivotal in almost every area of discipline, be it in science, technology, engineering, or mathematics (Kaur & Khan, 2010). Additionally, the four macro-skills of English are perceived by students to be immensely essential in their course and prospective career. Kaur and Khan (2010) thus suggested the consideration of strand specificity in the teaching of the subject English for Academic and Professional Purposes (EAPP), as an English for Specific Purposes (ESP) course. In other words, teachers must include workplace-based language activities that are geared towards preparing the Senior High School students for their future career. More clearly, strand specificity refers to whether or not the oral language activities (listening and speaking) and the visual language activities (reading and writing) done in the classroom are directly related to the future work of the students in a specific strand. On this note, language teachers and course developers need to find out what language-based objectives of the students are in the target occupation or academic discipline and ensure that these activities work towards them.

In the Philippines, to better prepare the Filipino students for their prospective professions, the Republic Act 10533 or the Enhanced Basic Education Act of 2013 has been enacted with implications for the curriculum to be tailored to the learners’ present and future needs. However, there is a gap with the teacher’s capacity to provide authentic language activities to the students (Basturkmen, 2010). The Filipino teachers’ pedagogical approach has been largely rote-based, which results in a type of learners who limitedly master and are hardly capable of applying the skills and knowledge for further education and in their prospective workplaces (Sarvi, Munger, & Pillay, 2015). More so, since the Senior High School Curriculum is a new program in the Philippines, there is a dearth of studies that tackle the level of strand specificity and perceived effectiveness of language activities in the EAPP instruction. Bacala (2017) focused only on the extent of ESP application in the EAPP curriculum in the same way that Vosoughi, Sharifabad, and Raftari (2013) studied the specificity of EAP for medical students. The same studies on students’ needs analysis were done by Kaur and Khan (2010) and Chostelidou (2010), but they were not centered on the subject EAPP. Though there was a study on the effectiveness of English instruction by Huang (2015), it merely delved into the effectiveness of the subjects using English as a medium of instruction in general and did not relate it to whether or not the activities in those subjects are relevant to the future career of the students.

Thus, the researcher wanted to find out the level of strand specificity and perceived effectiveness of language activities in the senior high school EAPP instruction. Moreover, this study investigated if a significant difference exists both between the level of strand specificity of oral and visual language activities and their perceived effectiveness. Finally, it assessed if there is a significant relationship between the strand specificity and perceived effectiveness of language activities.

2.0. Framework of the Study

The study was mainly anchored to the Model of Needs Analysis by Dudley-Evans and St. John (1998). This model, according to Rahman (2015), can be viewed as the most comprehensive model for an investigation of English for Specific Purposes
needs. Dudley-Evans and St. John’s (1998) Needs Analysis Model focuses on learners’ professional information, learners’ personal information, learners’ language information about the target situations, learners’ lacks, learners’ needs from the course, language learning needs, communication information in the target situation, and environmental information. Needs analysis aims to know learners as people, and as language users and learners; to know how language learning and skills learning can be maximized for a given learner group; and to know the target situations and learning environment so that data can appropriately be interpreted (Dudley-Evans & St. John, 1998 cited in Rahman, 2015).

In the context of senior high school English for Academic and Professional Purposes (EAPP) classroom, this model of needs analysis suggests that teachers must provide the students with language activities that are geared towards preparing them for their chosen course or future career. In connection to what this model suggests, this paper intended to assess whether this recommendation is considered in the EAPP instruction.

Taking Dudley-Evans and St. John’s (1998) Needs Analysis Model into consideration, senior high school students will become more engaged in the language activities if these activities are aligned with their future professional needs. The findings of the previous study of Seghir, Abdelaziz, and Thouria (2013), for instance, revealed that many students are rarely satisfied with the selected materials for their field of specialization because they are barely relevant to their future needs. In short, a student is assumed to be studying English or engaging in a language activity for a certain practical need. Hence, the curriculum designer needs to use needs analysis to determine what particular features of the target language situations should be taught and what skills are to be developed, and the language teacher should then focus on these features and skills (Basturkmen, 2010).

Impliedly incorporated in this model is the contextualized teaching and learning (CTL), which is a group of pedagogical strategies designed to connect the acquisition of basic skills and the academic or work-related content by placing the direct focus of teaching and learning on the applications in a specific context the students find interesting (Bird, Livesey & Simon, n.d.). According to Bird, Livesy and Simon (n.d.), when these concepts are taught in context, people will learn better and faster and retain learnings longer.

In the contextual learning theory, learning occurs only when the information or knowledge processed by the students make sense to them in their own frames of reference (their own inner worlds of memory, experience, and response) (Center for Occupational Research and Development, 2016). This is because the mind naturally finds the meaning in context when the learning-to-life relationships make sense or appear to be useful. Based on this understanding, the theory focuses on the various aspects of any learning environment, whether a laboratory, a classroom, a worksite, or a computer lab. Educators are therefore encouraged to design a learning environment which incorporates different experiential forms in working toward the expected learning outcomes. In such an environment, students discover how meaningfully related the abstract ideas are to the practical applications in the real world context. Here, concepts are internalized through discovering, reinforcing, and relating process.
In the Philippines, contextualization among schools is required as it is part of the enactment of the Republic Act 10533 or the Enhanced Basic Education Act of 2013 which aims to establish, maintain and support a complete, adequate, and integrated system of education relevant to the needs of the people, the country and society at large (Section 2) (Official Gazette of the Republic of the Philippines, 2013). Because of this declaration, the Department of Education (DepEd) is required to adhere to standards and principles in developing the enhanced basic education curriculum which must be learner-centered, relevant, responsive, contextualized, global and integrative (Section 5). In brief, this act mandates the DepEd to tailor the curriculum to the learners’ present and future needs.

![Conceptual Model](image)

**Figure 1. Conceptual Model**

### 3.0. Methodology

The study employed the descriptive-comparative research design to measure the levels of strand specificity and perceived effectiveness of language activities in the Senior High School EAPP instruction. Similarly, it was employed to determine the difference between the levels of strand specificity and perceived effectiveness of oral and visual language activities. Moreover, a correlational approach was utilized to examine the relationship between the strand specificity and perceived effectiveness of language activities in the EAPP instruction.

The total population of 79 Grade 11 STEM students enrolled in a public Senior High School in the northern part of Negros Occidental for the second semester of the school year 2018-2019 were the respondents of this study. As the only group of students whose strand is STEM in the Division, they were chosen to assess the strand specificity and perceived effectiveness of language activities in the subject EAPP using a two-part researcher-made questionnaire, which includes descriptive statements reflecting the level of strand specificity in the first part and the level of perceived effectiveness in the second part. This questionnaire was pilot-tested in another National High School, a
school offering STEM in a neighboring Division, which is also a mother school just like the locale of this study.

Before the data gathering process, the researcher secured the approval of the Associate Dean of the Recoletos de Bacolod Graduate School for the conduct of the study. The researcher administered the survey personally to the participants with the permission of their subject teachers. The respondents were instructed on how to accomplish the test and were given clarification on some concerns, especially on their voluntary participation, to avoid confusion. Moreover, the researcher secured the informed consent of the participants who were also assured of the full confidentiality of their answers. The data gathered were disposed of after the retention period passed to meet some ethical requirements. The tangible source of research data, which is the questionnaire, was burned while digital data were deleted without any chance of retrieval.

The data underwent descriptive analysis using the statistical tools Mean and Standard Deviation to determine the level of strand specificity and perceived effectiveness of language activities in the senior high school EAPP instruction when the assessment of the Grade 11 STEM students was taken as a whole and when grouped according to the type of activities. Moreover, they were run through comparative analysis using the Dependent T-test to investigate on the difference in the level of strand specificity and perceived effectiveness of language activities in the senior high school EAPP instruction when the assessment of the respondents was grouped according to the type of activities. Finally, the data went through correlational analysis using the Pearson r to assess the relationship between the strand specificity and perceived effectiveness of language activities in the senior high school EAPP instruction.

4.0. Results and Discussion

Level of Strand Specificity of Language Activities in the EAPP Instruction

As shown in Table 1, the descriptive results reveal that when the assessment of the Grade 11 STEM students is taken as a whole, there exists a High Level (M=3.97, SD=0.51) of strand specificity of language activities in the senior high school EAPP instruction for STEM students. Similarly, when grouped according to the type of activities, both the Oral Language Activities (M=3.94, SD=0.55) and Visual Language Activities (M=4.00, SD=0.56) are of High Level of strand specificity.

The language activities done in the EAPP classroom are consistently geared towards preparing the STEM students for their future career. In addition, the lack of specificity in the Senior High School curriculum does not hinder the EAPP teachers from providing classroom-based language tasks that cater to the future career-related needs of the STEM students. The four macro-skills of English are therefore constantly enhanced among the learners in relation to their strand, prospective course, and future profession.

In support, Bacala (2017) found out that there exists a high extent of ESP application in the senior high school subject EAPP. In the same way, it is vertical to the recommendations of Arslan and Saka (2010) that there should be an application of content and activities which are motivationally relevant to the students’ specialization.
Bacala (2017) also revealed that the instructional materials, activities and learning resources given to the students who belong to their chosen strand are consistent and relevant. Moreover, the results were congruent with the assertion of Popescu (2015) who pointed out that teaching and learning ESP materials should always engage the learners in the process of developing skills for evaluating their speaking or writing to allow them to become independent learners in their workplace. Correspondingly, the STEM students must have skills in listening as listening comprehension of spoken English has become mandatory in the science and technology fields (Boitsova, Bogach & Vylegzhanina, 2016).

Contradictorily, Eslami (2010) revealed that the majority of the EAP students in Iran have problems with listening, speaking, reading, and writing. These students have slow reading speed and poor listening, speaking, writing, and reading comprehension. Furthermore, the study of Boitsova, Bogach, and Vylegzhanina (2016) regarding the current level of the students’ field knowledge found out that the level of engineering students’ oral scientific discourse comprehension demonstrated quite unsatisfactory results. Hence, Kaur and Khan (2010) suggested that students must be taught relevant workplace-specific language contexts that would serve to prepare them well for their future workplace in their areas of specializations.

Table 1. The Level of Strand Specificity of Language Activities in the EAPP Instruction

<table>
<thead>
<tr>
<th>Strand Specificity of Language Activities</th>
<th>M</th>
<th>SD</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Language Activities</td>
<td>3.94</td>
<td>0.55</td>
<td>High</td>
</tr>
<tr>
<td>Visual Language Activities</td>
<td>4.00</td>
<td>0.56</td>
<td>High</td>
</tr>
<tr>
<td>As A Whole</td>
<td>3.97</td>
<td>0.51</td>
<td>High</td>
</tr>
</tbody>
</table>

Level of Perceived Effectiveness of Language Activities in the EAPP Instruction

The data in Table 2 show that when the assessment of the Grade 11 STEM students is taken as a whole, there exists a High Level (M=3.99, SD=0.48) of perceived effectiveness of language activities in the senior high school EAPP instruction for STEM students. Congruently, when grouped according to the type of activities, both the Oral Language Activities (M=3.98, SD=0.53) and Visual Language Activities (M=4.01, SD=0.47) are of High Level of perceived effectiveness.

Simply put, the language activities done in the EAPP classroom consistently achieve the purpose of the lesson in preparing the STEM students for their future career, amply considering the students’ interests and skills, clarity of the activity, and availability of resources. To add, the teachers provide various activities which the students find not only interesting but also worth engaging as they are related to their field of interests and specializations. The findings of the study are supported by Ozkanal and Hakan (2010) who asserted that for an English preparatory program to be effective, an ESP course that would address the professional language needs of the students must be implemented as it was seen as the major deficiency of the program.
Moreover, the results reveal that the activities on the four macro-skills of language provided in the EAPP classroom constantly accomplish the lesson objectives in priming the STEM students for the target situation. Furthermore, activities which are interesting for the students can lead to a more animated and productive classroom performance.

These results were strengthened by Carstens (2010), Martinez (2002), and Goh (2013). In her study in 2010, Carstens found out that genre-based language activities, both narrow-angled and wide-angled, were effective in improving the academic writing abilities of the students. Concerning the effectiveness of reading activity, on the other hand, Martinez (2002) revealed that the recognition and comprehension of the rhetorical features guiding the organization of the text contribute to the success of the activity. Meanwhile, the investigation of the effects of knowledge about language and language use on listening performance in different types of ESP listening, as for Goh (2013), can provide valuable insights for teachers to make listening activities inside the classroom effective.

Table 2. The Level of Perceived Effectiveness of Language Activities in the EAPP Instruction

<table>
<thead>
<tr>
<th>Perceived Effectiveness of Language Activities</th>
<th>M</th>
<th>SD</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Language Activities</td>
<td>3.98</td>
<td>0.53</td>
<td>High</td>
</tr>
<tr>
<td>Visual Language Activities</td>
<td>4.01</td>
<td>0.47</td>
<td>High</td>
</tr>
<tr>
<td>As a Whole</td>
<td>3.99</td>
<td>0.48</td>
<td>High</td>
</tr>
</tbody>
</table>

Difference in the Level of Strand Specificity of Language Activities in the EAPP Instruction

The inferential results indicate that when grouped according to the type of activities, there is no significant difference between the level of strand specificity of oral language activities (M=3.94, SD=0.55) and visual language activities (M=4.00, SD=0.56); t(78)=1.236, p=0.220.

Table 3. Difference in the Level of Strand Specificity of Language Activities in the EAPP Instruction when grouped according to types of activities

<table>
<thead>
<tr>
<th>Strand Specificity of Language Activities</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3.94</td>
<td>4.00</td>
<td>1.236</td>
</tr>
<tr>
<td>Visual</td>
<td>(0.55)</td>
<td>(0.56)</td>
<td>78</td>
</tr>
</tbody>
</table>

Note: The difference is significant when p<0.05

Since the mean difference between the two variables is not that notable, this entails that, equally at a high level, both the oral language activities and visual language activities exhibit the same consistency in being designed for preparing the STEM students for field-related language tasks. Differently put, the teachers equally
utilize strategies and techniques to make the activities in listening, speaking, reading and writing relevant to the STEM strand. In his study on the needs of engineering students in Thailand, Kaewpet (2009) supports this result. Based on the stakeholders’ recommendations, he determined that four communicative events that should be equally incorporated into the course were talking about daily tasks and duties, reading textbooks, reading manuals, and writing periodic/progress reports.

Contrastingly, Bacala (2017) found out that there exists a significant difference in the extent of application of ESP in the EAPP curriculum for the senior high school students. However, the significant difference is not between the two types of language activities but among the strands the respondents of his study were then enrolled in. Meaning, the activities and content from other strands have higher extent of ESP application in the EAPP than the others.

The significant difference in the strand specificity is somewhat dictated by the demands of a certain field of specialization. For instance, in the study by Kassim and Ali (2010), they recommended that emphasis should be put on oral, rather than written, communication skills in teaching English for engineering students. In addition, in the conduct of the study by Bosher and Smalkoski (2002), the course Speaking and Listening in a Health-Care Setting was developed to respond to what was identified as students’ area of greatest difficulty: communicating with clients and colleagues in the clinical setting.

**Difference in the Level of Perceived Effectiveness of Language Activities in the EAPP Instruction**

The inferential results entail that when categorized according to the type of activities, there exists no significant difference between the level of perceived effectiveness of oral language activities (M=3.98, SD=0.53) and visual language activities (M=4.01, SD=0.47); t(78)=0.997, p=0.332.

<table>
<thead>
<tr>
<th>Perceived Effectiveness of Language Activities</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3.98</td>
<td>0.977</td>
<td>78</td>
</tr>
<tr>
<td>Visual</td>
<td>4.01</td>
<td>0.977</td>
<td>78</td>
</tr>
</tbody>
</table>

Note: The difference is significant when p < 0.05.

The levels of perceived effectiveness of oral and visual language activities are equal at a high level. Evenly, both types of language activities consistently achieve the purpose of the lesson in preparing the STEM students for their future career, amply considering the students’ interests and skills, clarity of the activity, and availability of resources. This result is reflective of the teacher’s competence in delivering instruction on the four macro-skills of English, collaboration with others, resourcefulness, and keen
observation on the students’ higher level of attention and engagement when they love the language activities that they are doing. Barnawi (2011) supports this finding in his study which found out that students perceived ESP as a program which targets the development and enhancement of the four macro-skills for a future profession.

Meanwhile, veering away from students’ perception, various experimental studies on the effectiveness of language activities revealed a significant difference between the two conditions. In a study by Radzuan, Ali, Kassim, Hashim, Osman, and Abid (2008) on the development of speaking skills module for engineering students, the results show that there was a considerable improvement in their oral competency as well as a significant reduction of communication apprehension level after the speaking module intervention. Likewise, Parkinson, Jackson, Kirkwood, and Padayachee (2008), in their investigation on the effectiveness of an academic literacy course, reported that the equivalent tests before and after the course indicate that students do improve their academic reading and writing, with the weakest students making the biggest improvement. In addition, in the study by Chostelidou (2011) on the effectiveness of an ESP teaching intervention, the post-intervention data revealed that the experimental group outperformed the control group in terms of total test scores even after adjustments were made by removing the learners’ previous linguistic competence as measured by the OPT while between-groups comparison indicated statistically significant differences.

**Relationship between the Level of Strand Specificity and Perceived Effectiveness of Language Activities in the EAPP Instruction**

The correlational results manifest that there exists a positively moderate significant relationship ($r=0.449$, $p<0.05$) between the strand specificity and perceived effectiveness of language activities in the EAPP instruction. This means that the strand specificity of language activities somehow contributes to the perceived effectiveness of language activities. On the average, language activities with high level of strand specificity were also perceived by the students to be highly effective. Inasmuch as there is interdependence between the two variables, however, strand specificity is just among the factors that influence that effectiveness of the language instruction.

**Table 5. The Relationship Between Strand Specificity and Perceived Effectiveness of Language Activities in the EAPP Instruction**

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strand Specificity of Language Activities x Perceived Effectiveness of Language Activities</td>
<td>.449**</td>
<td>79</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Note: *The correlation is significant when $p<0.05$.

In affirmation to the findings of this study, Hyland and Bondi (2006) posited that the success or effectiveness of a language activity for a specific purpose is reliant on the construction of a career-related knowledge. In the context of writing, making activities inside the classroom effective or successful does not occur in a vacuum but depends on an understanding of a professional context (Hyland & Bondi, 2006). Hence,
the texts produced in legal, medical, technical, and business fields differ enormously from each other and often from one site to another.

Correlatively, Goh (2013) suggested language activities and intervention which would contribute to successful listening performance for academic and occupational purposes. She recommended the employment of metacognitive instruction—as it is related to both academic learning and workplace-specific listening situations and beyond—in listening for academic and professional or vocational purposes. In other words, the use of teaching strategies and methods that integrate professional conditions would make the delivery of the language lesson effective.

Meanwhile, the results validate what this paper primarily theorized that the strand specificity of language activities is an underlying factor for the effectiveness of reading, writing, listening and speaking tasks. However, since the relationship between the two variables is notable merely at an average level, this means that the effectiveness of language activities is not mainly dependent on whether they are designed to prepare the students for their future career. More exactly, strand specificity is just one of the various factors that influence the effectiveness of language activities. Latu (1994) noted that career aspiration is just one of the factors affecting the learning of the four English macro-skills. Other factors were the students’ perceived language ability, frequency of English language use with non-native speaker, interests, and integrative motivation. To add, the innovativeness in providing language activities and technology integration might be among the factors contributing to the effectiveness of language activities.

5.0. Conclusion

In a nutshell, the language activities in the senior high school EAPP instruction are both highly strand-specific and effective based on the perceptions of the STEM students. Teachers, in addition, give equal emphasis both to the strand specificity and effectiveness of the visual and oral language activities. This implies that the EAPP teacher has been consistent in providing the students with listening, speaking, reading and writing activities that are related to the students’ target situation or future career. Additionally, there is consistency in devising the kind of classroom-based language tasks that draw the students’ attention to the realization of the lesson objectives.

On this note, there is a need for maintaining and enhancing the strand specificity and effectiveness of the linguistic tasks that the senior high school students are exposed to. With the still prevalent lack of strand-specific teaching tools provided by the Department of Education, however, instructional materials that are strand-specific are yet to be prepared by the English teachers through collaboration with the experts. Though the results may attribute to the teacher’s competence and resourcefulness, there is still a need to prepare teaching materials that are useful to the future courses and career of the students.

Meanwhile, there is a dependence of perceived effectiveness to the strand specificity of language activities. The relationship between the two variables, however, is notable merely at an average level. Therefore, the effectiveness of language activities is not solely determined by its strand specificity or whether or not these activities are designed to prepare the students for their future career. More exactly, strand specificity is one of the factors that influence the effectiveness of language activities.
The language teachers are therefore encouraged to expose the students to language activities that are authentic and effectively strand-specific, or those that are geared towards preparing the senior high school students for their future careers. To further enhance the authenticity of language activities, they must continuously incorporate the competencies on listening, reading, writing and speaking for specific purposes, especially professional. Hence, the Education Program Supervisor (EPS) in English must initiate a division-wide training-workshop for EAPP teachers on the development of STEM-specific language activities, inviting speakers and experts from different areas of specialization. Meanwhile, the school administrators, as the direct supervisors and observers of the teachers’ delivery of lessons, are advised to add “strand specificity” as another success indicator of the classroom pedagogical performance of EAPP teachers. While the educational implementers are doing their part in providing a workplace-based language instruction, the students, on the other hand, must engage themselves in language activities that would enhance their career-related skills in reading, writing, listening, and speaking. Finally, to validate the results of this study, future researchers are encouraged to conduct similar research investigation to other strands in the senior high school.

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