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# PEDAGOGICAL PRACTICES INVOLVED IN INTEGRATING ENGLISH LANGUAGE SKILLS IN SUBJECT-SPECIFIC LEARNING: A CASE OF HIGH SCHOOL TEACHERS

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## ABSTRACT

This article explores the pedagogical practices used by high school teachers in integrating disciplinary and language knowledge in a multilingual context where English is the medium of instruction. Specifically, we explored the way high school teachers implement the English Across the Curriculum (EAC) strategy in their content subjects. EAC is an old approach in language learning, however, its application is relatively new in South African high schools. To address this knowledge gap, the present study provides an answer to the following question: What pedagogical practices do high school teachers use in integrating EAC with subject-specific learning? To answer the research question, we conducted a qualitative case study, collecting data from 25 high school teachers using a focus group discussion. Data emanating from this discussion were analyzed using inductive thematic analysis. The findings indicate that in-service teachers used intentional disciplinary language learning and incidental disciplinary language acquisition as pedagogical activities for developing learners' knowledge of the language of the discipline. In line with the findings, we recommend that learners be exposed to both intentional and accidental language learning experiences. Additionally, we recommend the use of higher comprehension pedagogical activities to develop learners' critical thinking and awareness in both language and disciplinary knowledge.

**Contribution/Originality:** This study contributes to the existing literature on approaches for language teaching in second language teaching contexts. Specifically, it explores the pedagogical practices used by high school teachers across the curriculum in incorporating disciplinary and language skills in a multilingual context where English is the medium of instruction.

## 1. INTRODUCTION

High school teachers face a myriad of challenges that hinder their effectiveness as educators. Literature abounds to support that the challenges faced by high school teachers can be summarized into three themes namely, lack of content knowledge (Brobst, Markworth, Tasker, & Ohana, 2017) limited support from parents (Borup, 2016) and failure to address the learners' needs (An & Carr, 2017). In addition, Brobst et al. (2017) also stated that high school teachers' effectiveness is also compounded by societal evolvement that constantly requires new skills from them. Notwithstanding the challenges that high school teaching presents, Hattie (2009) states that the strongest determinant of learner success at this level is effective teaching. Many researchers have documented the knowledge,

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values and skills that comprise a model of effective teaching (Darling-Hammond, 2017; Flores, 2019; Shulman, 1987) providing specific requirements that an effective teacher ought to possess as a professional educator. In recent years, researchers such as Wingate (2018); Swart, De Graaff, Onstenk, and Knèzic (2018); Lin (2016) and Shanahan and Shanahan (2012) have pointed out the need to broaden the traditional teacher knowledge base to include the knowledge of language of instruction. Language is a tool for conceptualizing the world and our knowledge of it and, as Vicente and Martinez-Manrique (2013) argue, "different languages carve the world into different categories". This understanding embraces the notion that language is the vehicle by which we shape our knowledge of the concepts of being in the world and we can express our thoughts about it (Nomlomo and Desai (2014). This assertion suggests that learners who lack proficiency in the English language of instruction will find themselves on the periphery of disciplinary learning and overall academic achievement. For learners in education systems where another language besides the learners' mother tongue is used for learning and teaching this situation is even direr. In 2015, UNESCO reported that English second language and multilingual learners accounted for the largest number of the 250 million children who were unable to read a single word.

The increase in global interaction has led to a growing demand for the use of the English language as the international lingua franca. In academic institutions, especially in ESL contexts, English has the privilege of being the Language of Learning and Teaching (LoLT) (also referred to as English as the medium of instruction in other contexts). As a result, globally, there is a growing demand for competent English teachers with effective skills and knowledge for facilitating language learning in various contexts. The teacher plays a central role in facilitating language learning, tasked with ensuring that learners have a proficiency level to meet global demands. When English is the language of instruction it is referred to as English for academic purposes (EAP) – a branch of English for specific purposes (ESP). According to Hyland and Hamp-Lyons (2002) EAP "refers to the language research and instruction that focuses on the specific communicative needs and practices of particular groups in academic contexts". The purpose of EAP is to guide students to develop strategic and critical thinking skills in English to enhance their general and disciplinary learning (Wilson, 2016) that is, EAP is concerned with "those communication skills in English which are required for the study purposes in formal education systems" (Jordan, 1997).

The aim, scope and implementation of EAP are determined by the specific academic needs of learners in an education system (Alexander, Argent, & Spencer, 2008). In South Africa, although multilingualism is the norm, English is widely used as the language of instruction. To develop high school learners' EAP skills, a strategy called English across the Curriculum (EAC) is used. EAC has its roots in Content and Language Integrated Learning (CLIL) and Language Across the Curriculum (LAC), approaches that provide insights into and explanations of language and learning. CLIL is an educational approach within the context of English as a Second Language (ESL) where content in non-language subjects and second language learning are integrated to provide authentic experiences for English Language Learners (ELLs) (Coyle, Hood, & Marsh, 2010). According to Van Kampen, Admiraal, and Berry (2018) "CLIL is often referred to as an 'umbrella' term, which is difficult to define at both theoretical and practical levels because it includes many variants depending on the specific context in which it is implemented". However, in all the varied contexts in which CLIL unfolds, its main purpose is to teach content subjects through the medium of a language other than the learners' mother tongue. LAC is an example of a type of CLIL.

LAC is an approach to learning that emphasizes the linking of various forms of language learning across all the school subjects (Vollmer, 2007). LAC has its roots in the efforts of a number of British secondary school English teachers, who met in 1966 and who in their own words found themselves "…discussing the different kinds of language and how they were acquired, the difference between talking and writing, the nature of discussion and group dynamics" (Parker, 1985). Drawn from this understanding, researchers such as Vollmer (2007) have underscored that LAC can be defined in two ways.  Firstly, LAC can be thought of as a concept that emphasizes

the preparation of all language teachers in the LoLT. Secondly, LAC refers to a comprehensive language approach that links the whole school language policy to the language dimension in all subjects. That is, LAC is both a "concept and language policy" (Vollmer, 2007). As part of several initiatives for implementing LAC in the education system, most countries use EAC.

Following these global trends, there have been several efforts in South Africa to enhance learners' English language usage. In recent years, a strategic effort has been the promotion of the development of English language across disciplines. The South African Department of Basic Education (DBE) (2014) explains that the EAC strategy has as its core purpose the need to assist learners who face learning barriers as a result of learning content subjects in English, a language that is not their mother tongue. In further explaining the aim of the EAC strategy, the Department of Basic Education (DBE) (2014) highlights that it is premised on the notion that every teacher is a language teacher and skills such as writing, reading, speaking and listening should be taught across the curriculum to enhance the proficiency of ELLs. Heller and Greenleaf (2007) explain that EAC focuses on " reading and writing instruction in the academic content areas – particularly the areas of math, science, English, and history – that comprise the heart of the secondary school curriculum" – that is, the belief that language learning is "deeply embedded in a social milieu" (Walqui, 2007). In this regard, EAC promotes the extended practice of English as a medium of instruction, using content from other disciplines in such a way that learners acquire both subject and language skills.

The discussion we have highlighted indicates the need for content teachers to be well grounded in English as the language of instruction. In realizing this need, Swart et al. (2018) call for the integration of "both pedagogical content and language knowledge into teachers' professional development to promote effective interaction with students about subject content". Dalton-Puffer and Smit (2013) argue that all teachers require conceptual and technical understanding of the English language in use in their discipline to facilitate meaningful learning for ELLs, while Atai, Babaii, and Lotfi Gaskaree (2017) state that the ability to teach EAP requires specific "distinctive status, identities and responsibilities" from in-service teachers. König et al. (2016) observe that for ELLs to develop competence in discipline-specific English, there is a need for the teachers of these disciplines to engage them in activities that are beyond the general English skills. However, little is known about the pedagogical activities that are used by high school teachers in their role as EAC practitioners in multilingual contexts. In the context of this study, pedagogical practices refer to the methods that in-service teachers employ in order to deliver integrated learning in English language skills and subject-specific skills (Van Kampen et al., 2018). That is, pedagogical practices refer to several aspects that interact within the socio-cultural context of language and disciplinary learning and are evidence of the teachers' pedagogical reasoning and actions.

In South Africa and in most countries where English Language is used for instruction, there has been a concerted effort by both the government and civil organization to enhance learner proficiency in this medium of academic communication. In the South African context, the Department of Basic Education where high schools resort, the English Language across the Curriculum strategy is being promoted to enhance the learners' oral, reading and writing competencies which they require for academic success. Mpofu and Maphalala (2020) highlight that these is a paucity of an explicit curriculum dedicated for guiding the student teachers to be able to infuse language skills and content knowledge. Similarly, professional programs meant for in-service teachers superficially include EAC in their focus. Therefore, to contribute to the improvement of the bleak picture painted above; this article problematizes the implementation of the EAC strategy in South African high schools. Specifically, we sought to describe the self-developed pedagogical practices teachers employ to integrate content and language learning in high school classes. In this study, we extend the work of other researchers who place language at the forefront of effective subject-specific learning. Hence, the study provides an answer to the following research question: What pedagogical practices do high school teachers in multilingual contexts use in integrating EAC with subject-specific learning?

## 1.1. Models for Integrating English across the Curriculum

There is no one model of integration that suits all contexts in the implementation of EAC. What is critical when deciding on the integration is the learners' language needs (Vázquez & Ellison, 2018). Depending on the extent of integration, different pedagogical activities are used to develop learners' language skills and content subject knowledge. According to Arnó-Macià and Mancho-Barés (2015) there are three EAC integration models, namely, the non-integration model, the Language for Specific Purposes and the adjunct model and team teaching. The non-integrated model of EAC is appropriate for an education system where language and content subjects are not linked, or their linkage is "less than 25% of exposure to English in content courses" (Arnó-Macià & Mancho-Barés, 2015).

Secondly, the Language for Specific Purposes is a pedagogical model that recognizes that English language usage varies in disciplinary domains and requires specialized skills and competences (Burns & Richards, 2018). Learners acquire these language skills and competences when they use English to write, read, listen and speak on content subject themes. Learning is planned and organized around specific content subject themes and language skills, as there is a well-defined synergy between language and content teachers. Lastly, integration using the adjunct model aligns the language instruction to content subject needs. The success of this model depends on a partnership between subject and language teachers. With its focus on the disciplinary use of language skills, the present study is aligned to the Language for Specific Purpose model. Specifically, the study sought to address the paucity of studies that explore the actual classroom pedagogical practices that high school teachers use to ensure language and content learning in multilingual contexts.

## 1.2. Theoretical Orientation

The theoretical orientation that informed the purpose and methodology, as well as how the findings of the study were reported, was drawn from two theorists, Nation (2001) (criteria for knowing a word) and Bandura (1999) (social learning theory). In his theory, Nation (2015) postulates that knowing a word is a multifaceted construct that incorporates three fields of knowledge. Firstly, knowing a word refers to the learner's knowledge of its structure, spelling and form. Secondly, knowing a word is the learner's ability to discuss its meaning by highlighting its conceptualization and associating it with other words. Lastly, knowing a word is the learner's ability to use it in varied contexts that include the oral and written forms. Nation (2001) further explains that these three criteria for knowing a word are embedded in two categories of language knowledge, namely, receptive and productive. Receptive knowledge of language refers to its input, which is required for reading and listening to take place. Productive knowledge of language, on the other hand, refers to speaking and writing; that is, the output of language that learners produce because of the receptive skills they have acquired. Drawing on Nation (2015) work, we sought to explore how high teachers packaged their pedagogical practices to expose their learners to the form, meaning and use of disciplinary words. Additionally, we paid attention to the way receptive and productive language skills were applied to enhance subject content learning.

Aligned to Nation (2015) emphasis on knowing a word, we were also interested in understanding the pedagogical practices that the high school teachers modeled to socialize the learners in the disciplinary language skills. To frame our understanding, we drew critical insights from Bandura (1999) social learning theory (SLT). Bandura (1999) explains that learning occurs by observing others, imitating and modeling. By observing others, human beings can inculcate skills, rules, attitudes, strategies and values. To achieve effective learning through observation, there is a need for cognitive modeling which is demonstrated in human verbal descriptions, thoughts and actions (Bandura, 2001). Beyond addressing how knowledge is acquired through observational and modeling aspects, SLT also provides an explanation of how individual behavior is regulated and motivated to create a social system. Another key principle of this theory is that individuals learn through contextually relevant experiences situated in social interaction. Language is an essential form of that social interaction; that is, the linguistic forms

embraced by a community facilitate meaningful human interaction. This suggests that the community has agreed upon conventions that they use to communicate. Importantly, Bandura (1999) recognizes that individuals are their own source of agency and hence, in this study, we describe the pedagogical activities that high school teachers are engaged in to develop their disciplinary language specific knowledge.

Oriented to Nations' and Bandura's worldviews, it has been held    in the context of this study that the high school teachers are active agents as they can simultaneously influence and be influenced by their teaching environment. In so doing, they integrate the EAC strategy in their discipline and acknowledge this process as socially situated and dynamic as well as a reciprocal interaction of language and content subject learning. Consequently, these orientations provided us with the theoretical framework we required to locate the EAC strategy as a holistic phenomenon of learning rather than a fragmented occurrence.

### 1.3. Paradigmatic Orientation, Study Design and Sampling

The purpose of the study was to explore the pedagogical practices used by high school teachers in implementing the English Across the Curriculum (EAC) strategy in a multilingual context where English is the medium of instruction. The current study embraces a social constructivist paradigm. According to Creswell and Poth (2016) social constructivism is an interpretive framework that acknowledges that knowledge is socially situated and shaped in interaction with others; that is, there is an understanding that individuals can only explore reality as they experience the world, drawing on and being influenced by the interpretations of others (Creswell & Poth, 2016). Drawing from this orientation, we situated the practice of EAC as socially constructed and embodied in the high school teachers' disciplinary identity and discourses. Aligned to the paradigmatic orientation, we selected and conducted a qualitative intrinsic case study. Stake (2005) explains that the purpose of the intrinsic case study is not theory building but rather an exploration to better understand the phenomenon. To understand the EAC practices of high school teachers we collected in-depth, rich and thick descriptions of the participants' reality bounded to their context Stake (2005).

The 25 participants in the study were selected using purposive sampling. The participants were drawn from KwaZulu-Natal Province. This type of non-probability sampling is used when the selection of participants is intentional to include individuals with in-depth and contextual knowledge of the phenomenon (Creswell & Poth, 2016). The participants were selected using the following criteria: (i) high school teachers in any discipline besides languages, and (ii) having two years' teaching experience. The participants in this study used pseudonyms as a strategy for ensuring confidentiality and anonymity. The 25 participants in this study were teaching in the following disciplines: Life Sciences; Physical Sciences and Business Studies.

### 1.4. Data Collection and Analysis

We collected data using a focus group discussion during which participants generated rich, thick and in-depth qualitative data through integration and cultural memory. We held one focus group discussion with the participants that lasted for two hours. This interaction allowed us to understand the descriptions and explanations that the participants attached to their EAC practices, which would not have been possible or in such depth had we opted for individual interviews Krueger and Casey (2009). Drawing from the paradigmatic orientation of social constructivism, in this study we adopted a stance where we generated patterns of meaning inductively from the participants' transcripts (Creswell & Poth, 2016). Since the purpose of this study was to understand the high school teachers' EAC practices within their contexts, an inductive thematic approach was applied to data analysis. According to Cresswell (2014) inductive thematic analysis is an approach that is used when identified themes are linked to the raw data. We accordingly followed (Creswell & Poth, 2016) analysis framework as we generated the data, organized the data, read the data, identified themes, amalgamated the themes and interpreted the data.

The ethical clearance to conduct the study was granted by the University of Zululand Research Ethics Committee (UZREC). To adhere to the ethical principles, the following considerations were consciously respected in conducting the study: ensuring the anonymity and confidentiality of participants, informed consent and voluntary participation and protecting participants from harm. In addition, we used quality criteria of transferability, credibility, conformability and dependability to attend to the trustworthiness of the study(Guba & Lincoln, 2005).

### 1.5. The Research Site: the South African School System

The South African school system falls into two categories, public and private. The private school system follows the national curriculum but is independently owned, while the public-school system is run by the government and enrolls the highest number of learners in South Africa. Further, the school system comprises two main levels, primary and high school. The focus of this study is on the public high school system. The primary stage comprises two phases, Foundation Phase (Grades R–3) and Intermediate Phase (Grade 4–6), and the high school level also incorporates two phases, the Senior Phase (Grade 7-9) and the exit level, Further Education Training (FET) (Grade 10–12). South African learners generally begin their schooling at the age of six and are expected to exit the system at the age of 18 (Department of Education, 1996). The focus of this study was on teachers in the Senior Phase and the FET phase. According to the DBE (2015), the EAC strategy is designed for the integration of language skills and content subjects in high schools.

South Africa is a multilingual country. Although it has 22 languages, only 11 are recognized as official languages. The official languages are Afrikaans, English, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga and isiNdebele (Stoop, 2017). In 2018, the South African Government also recognized South African Sign Language (SASL) as one of the home languages in the education system. The Government has also called for the development and promotion of other indigenous languages such as the Khoi, San and Nam languages. Within the school system, two LOLTs are privileged, English and Afrikaans, but the focus of this study was on high school contexts where English is used as the medium of instruction. Apart from the Foundation Phase (Grade R–3), where learners learn in their mother tongue up to Grade 3, the majority of the South African children are instructed in a second language (Stoop, 2017).

In terms of second language learning, learners can learn English as a Home Language or as a First Additional Language. Home Language affords the language proficiency development targeted for the mastery of the interpersonal skills vital for communicative competence and the cognitive academic skills required for learning across the curriculum (Department of Basic Education (DBE), 2014). In Home Language, the focus is positioned on the effective teaching of listening, speaking, reading and writing skills. At Grade 7, more marks are given for reading and writing, speaking and listening, because at this level learners require more literacy development (Department of Basic Education (DBE), 2014). First Additional Language is predicated on the belief that learners do not possess the necessary second language knowledge and skills on admission to the school system, thus the focus of this level is on the development of these skills; hence on learners developing their ability to use language for basic interpersonal communication (Department of Basic Education (DBE), 2014).

## 2. FINDINGS

Table 1 captures the themes, subthemes and categories that resulted from the analysis of the focus group discussion transcriptions. Two themes emerged, namely, intentional disciplinary language learning and incidental disciplinary language acquisition, in answer to the study question, what pedagogical practices do high school teachers' use in integrating EAC with subject-specific learning? Theme one, intentional disciplinary language learning, refers to the deliberate study of subject-specific language skills through planned learning activities. This type of language learning is limited to instructional settings. Theme two, incidental disciplinary language

acquisition, speaks to the learning of disciplinary language that occurs in the context of everyday interaction within the class and school contexts. The learning process is unconscious and unplanned but extremely beneficial for the learners' disciplinary knowledge development.

**Table-1.** Themes, subthemes and categories.

| Themes | Sub-theme | Categories |
|--------|-----------|-----------|
| Intentional disciplinary language learning | Presenting new words | - Use of visual images (realia; drawings) <br> - Use of mimicry (actions; gestures) <br> - Lexical relations (synonyms) |
| Incidental disciplinary language acquisition | Using new words in context | - Speaking <br> - Listening <br> - Reading <br> - Writing |

### 2.1. Theme 1: Intentional Disciplinary Language Learning (IDVL)

The first theme describes the conscious and planned pedagogical activities for developing learners' subject-specific vocabulary. Using this EAC strategy, the participants introduced new topics in the discipline by explicitly teaching critical language to enhance learners' comprehension. Firstly, the new words are presented using visual images. For example, Teacher Kay who is a Geography teacher explained that: *I bring real life objects and drawings to enhance the learners' Geography language knowledge. Otherwise, the learners do not understand the concepts in English easily* (p. 9). In support, Participant M described that: *I bring visual aids to my class especially when I am introducing a new concept. The visual aids are helpful in having the learners imagine what you are discussing …* (p. 15). The high school teachers in this study agreed that the use of authentic materials such as realia and drawings supported the process of developing learners' disciplinary vocabulary.

Akin to the use of visual images is mimicry. Firstly, using mimicry as a strategy, the participants guide learners to memorize and imitate disciplinary terminology through repetitive drilling. A Mathematics teacher explained that: *What I usually do when I am just introducing the topic in Mathematics, I ask them [learners] to repeat and pronounce the words. After I am sure that they can pronounce the key words, I then explain them* (Participant K: 18). In support, an Economics and Geography teacher highlighted another mimicry technique that involves individual work for the learners. She said: *You will just give them maybe like 20 words and then they will go and learn those words on their own. They go and study these words and their meaning and then you just do an informal test* (Participant G: pp. 16–17). Secondly, the learners are guided to attach meaning to the sound of the word. The last step in this strategy is when the learners use the terminology to discuss disciplinary content.

In addition, in presenting new words in the discipline, the participants indicated that they used lexical relations. Participant K explained that: *I tell them that they must go and look for synonyms of those words that are difficult for them* (Participant K: 17). It was found that the only lexical relation that the participants used was the synonymous form. This activity helps learners to notice the similarities between words and phrases they already know and the new ones. Used in this way, the synonymous form helps learners to internalize the grammatical, semantic and pragmatic usage of disciplinary words and phrases.

The intentional disciplinary language learning strategy aligns with Nation (2015) knowing a word through its form and meaning and allows in-service teachers to develop the learners' content lexis by linking sounds and objects and applying them to the language skills of listening, speaking, reading and writing. This strategy is critical for enhancing learners' holistic and grammatical understanding of how words and phrases work within the discipline. The development of learners' disciplinary language seems to take place through the process of scaffolding by means of which learners are supported to infer the meaning of specific words and phrases using visual and contextual clues. However, for more profound language growth learners require opportunities to apply new language using different language skills. This pedagogical activity enhances the deep processing of disciplinary

content that learners require for critical thinking and higher order reasoning across the curriculum. In line with Bandura's SLT, learners should be given many opportunities to observe how words are sounded, read, written and used in the discipline. This cognitive modeling is critical for learners, demonstrating the need to contextualize relevant experiences to support their content knowledge comprehension.

### 2.2. Theme 2: Incidental Disciplinary Language Acquisition

The participants mentioned that presenting the new words and phrases to learners does not mean that they will automatically use them or apply them. Thus, there was need to have more activities embedded in the language skills, such as listening and speaking, reading and writing as a way of enhancing the learners' disciplinary knowledge. The high school teachers' understanding of incidental disciplinary language acquisition agrees with that of Teng (2018) and Nation (2015) who note that this strategy happens when language is learnt in context. The participants noted that incidental disciplinary language acquisition occurs when learners arrive at the meaning of new words when they are reading, listening, speaking and writing. For example, Participant M, who is a Geography and Economics teacher, mentioned that:

> I usually ask the learners to read the case studies in Economics as a class then later as individuals. First, I ask the learners to identify the new words they have learnt in the passage. Secondly, I read the passage and then ask learners to take turns to read. I then ask them in groups to discuss the meanings of the words as they are used in the passage. Sometimes, I ask them to identify synonyms of the words. Lastly, I ask them to answer comprehension questions. It's not an English Language class but I do ask them to do that … it usually easy for them to understand the content this way (p. 43).

In this description, disciplinary language acquisition results from a holistic language learning experience while reading. This suggests that learners require simultaneous exposure to the integrated language skills and the authentic (disciplinary) text to comprehend content knowledge. In harmony with the study's theoretical moorings (Bandura, 2001; Nation, 2001) the participants socialized their learners in the discipline by means of a scaffold process where the learners are supported until they have mastered the meaning of critical words and phrases.

We realized during the findings that intentional disciplinary language learning strategy was largely used in social science (Geography, Business Studies and Economics) teachers who used this strategy in their classrooms, as the Life and Physical Sciences teachers did not appear to do so. Participant R, a Mathematics teacher, revealed that the failure to integrate reading in the discipline was theirs. He acknowledged that the FET curriculum does require the learners to read in Mathematics, as he said: *According to the CAPS document that we use, especially at the beginning of a new topic, there is always, even though its Mathematics, there is always one or two pages which the learners need to read and understand first before they go to work …* (p. 45-46). This might mean that in some disciplines, although stipulated in the curriculum, teachers are unable to integrate language learning and content because they lack relatable experience to enact it in their classrooms. This suggests that although these teachers acknowledge the merits of language learning in their disciplines, they lack knowledge on how to implement it in their classrooms.

Another strategy that the high school teachers used is the incidental acquisition of language through writing. In explaining this activity, Participant Kay said that *sometimes I read a passage where I request them [learners] to write down what I am reading. In this way, they listen to the words and then write them down. I use this activity a lot in Economics and Management Sciences* (p. 36). In support, Participant C stated that: *In Economics and Management Sciences, after I teach them new words, I require them to use them in writing essays and in oral presentation* (p. 40). Incidental acquisition of language through writing highlights what Nation (2001) calls productive language knowledge output. At this level, the learners have mastered the form and meaning of the word and are able to use it meaningfully in their writing.

Incidental language acquisition pedagogical practices are the productive language skills that are focused on when learners use the received vocabulary. The high school teachers explained that by listening, speaking, reading and writing, learners apply their knowledge of the words. Aligned to Nation (2001) the high school teachers guided

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the learners to use reading and listening as evidence of their ability to present disciplinary knowledge using appropriate language structures. On the other hand, writing and speaking, what Nation (2001) calls the output of language, indicate the extent to which the learners can produce the genres of communication that are discipline specific. Using this strategy, the teachers guided their learners to acquire language using disciplinary text. In so doing, the learners acquired language in context which enhanced the simultaneous, naturalistic acquisition of both discipline and language knowledge.

The high school teachers in this study indicated that they used intentional disciplinary language learning and incidental disciplinary language acquisition pedagogical practices, highlighting that the use of these practices happens on a continuum, as shown in Figure 1.
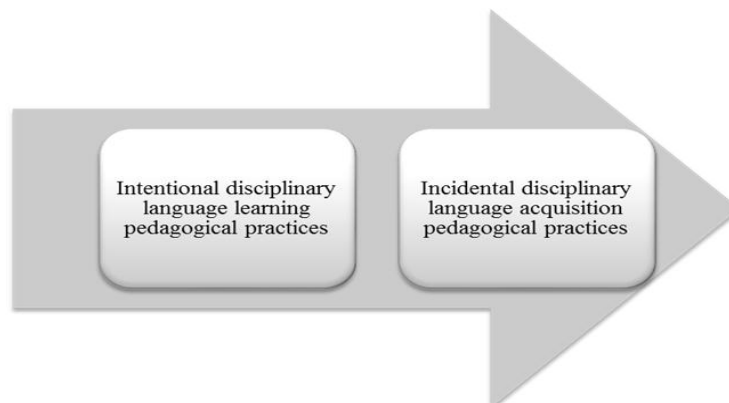


**Figure-1.** A summary of the pedagogical practice used by in-service teachers.

The process-oriented nature of in-service teachers' understanding, when it comes to developing learners' language in different disciplines, however fails to take account of the learners' own agency. From the teachers' descriptions of their pedagogical practices, it appears that language development is situated in the language itself rather than in discipline-specific interactions. That is, there is a need to focus more on the use of language in authentic disciplinary contexts that involve more than merely knowing words. For example, in this study, it was only the social science (Geography, Business Studies and Economics) teachers who used Incidental disciplinary language acquisition practices. By contrast, the Physical and Life Sciences teachers focused more on the development of new discipline-specific words without providing activities for the learners in which the words could be used in authentic disciplinary contexts.

## 3. DISCUSSION

In the focus group discussion, the high school teachers highlighted that their ELLs often struggled to understand disciplinary content presented in English. To enhance the learners' disciplinary comprehension of concepts, the teachers in this study used a variety of pedagogical practices to integrate the language and subject content. The findings revealed that the teachers used intentional disciplinary language learning and incidental disciplinary language acquisition in developing the learners' knowledge of the language of the discipline. Through intentional disciplinary language learning, the teachers used direct instruction to teach learners the language they required in order to understand critical disciplinary concepts. Using this strategy, the teachers presented new words to learners using visual aids, mimicry and lexical relations. By using intentional disciplinary language learning, the teachers ascribed to Nation (2001) first two criteria for knowing a word – by its structure and its meaning.

In addition, intentional disciplinary language learning served a receptive role with learners being exposed by a knower (the teacher) to both the sound and the meaning of a word. At this stage, learners are being inducted into the disciplinary language skills through what Bandura (2001) calls modeling, observational learning and imitation.

In line with Nation (2001) third criterion for knowing a word – using it in varied contexts such as the oral and written forms – the teachers in this study highlighted that they used incidental disciplinary language acquisition practices. These practices include the learners being able to use the new words in listening, speaking, reading and writing learning activities.

The high school teachers in this study understood their role as both disciplinary and language practitioners as resulting from the need to pay attention to the concept of comprehensible input. In highlighting this, Krashen (1987) concept, the teachers indicated that they incorporated different pedagogical practices to enhance learners' understanding of different forms in which content is presented in the language of the discipline. The teachers explained that these practices ensured that the disciplinary material is comprehensible to learners. Importantly, the integration of language and disciplinary knowledge provides the learners with the context and relatable experiences they require to process and acquire academic concepts.

## 4. CONCLUSION

The study had sought to answer the following question: What pedagogical practices do high school teachers in multilingual contexts use in integrating EAC with subject-specific learning? In answering the question, we found that high school teachers used intentional disciplinary language learning where they explicitly presented language structures that learners need to comprehend before concepts are introduced to them. Secondly, the sampled high school teachers used incidental disciplinary language acquisition where learners communicate about content knowledge using oral, reading and writing skills. Our findings support the notion that language skills and disciplinary literacy are not discordant strategies to language learning. On the contrary, learners have opportunities through the EAC strategy to practice common language skills as they speak, read and write disciplinary specific texts. Hence, based on the findings of this study, there is still a need to explore effective pedagogical practices in EAC that are discipline specific. A few other recommendations include: a need to develop content teachers' knowledge of introducing foundational disciplinary language skills to anchor the learners' understanding of concepts; a need to account for the visual representation and cues of the text to aid learners' comprehension in designing lessons, high school teachers across the curriculum; and, a need for learners to be exposed to both intentional disciplinary language learning and incidental disciplinary language acquisition for them to practice the interpretation of disciplinary texts as a way of initiating them to the discourse community.

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