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## IMPLICATIONS FOR TEACHING SPECIALIZED TEXT READING

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**Abstract.** University reading material, apart from its content-area focus, yields significant language input. By assigning a variety of materials to read, students are provided considerable opportunities to assimilate target community language peculiarities and discourse conventions, as they occur in authentic contexts. Our legitimate concern is that the opportunities could be taken advantage of only when students master a good reading competence (RC), correlated with other basic language skills. To begin with, the article examines the importance of RC development for further academic and professional performance of students, in general, and for the acquisition of language proficiency within the English for Specific Purposes (ESP) course, in particular. Second, integrated approach instruction is provided from two perspectives: as a means of boosting students' receptive and productive skills development and as a way of motivating students to get meaningfully engaged with specialized texts to get deeper domain-related knowledge. Thirdly, it is considered the issue of selecting the specialized text - a sample of disciplinary conventions written by domain experts. Finally, there are suggested some recommendations concerning students' reading competence development within integrated pedagogy.

**Keywords:** *ESP, content-based reading, integrated communication skills, integrated skill approach, reading-to-learn, specialized text.*

**Rezumat.** Materialul oferit spre lectură în cadrul cursurilor universitare, în afară de focusarea sa pe conținut, asigură un input lingvistic semnificativ. Recomandând studenților o varietate de materiale spre lectură, li se acordă numeroase oportunități de asimilare a particularităților lingvistice și a convențiilor discursului comunității țintă, în felul în care acestea apar în contexte autentice. Preocuparea noastră rezidă în faptul că de eventualele oportunități pot beneficia doar studenții care stăpânesc o bună competență de lectură (CL), desigur, conjugată cu celelalte competențe lingvistice de bază. Înainte de toate, articolul abordează importanța dezvoltării CL asupra calității demersului academic și profesional al studenților, în general, cât și asupra achiziționării competenței lingvistice în cadrul cursului de limba engleză pentru obiective specifice, în particular. În al doilea rând, instruirea bazată pe abordarea integrată a competențelor este prezentată din două perspective: ca mijloc de stimulare a dezvoltării competențelor lingvistice receptivă și de producere, la fel și ca o modalitate de motivare a studenților în vederea angajării în lectura de profunzime a textelor

de specialitate pentru a obține cunoștințe temeinice din domeniul studiat. În al treilea rând, este abordată problema selectării textului de specialitate - un model al convențiilor disciplinare, scris de experții din domeniu. În final, sunt sugerate recomandări privind dezvoltarea competenței de lectură a studenților-ingineri în cadrul pedagogiei integrate.

**Cuvinte cheie:** *abordarea integrată a competențelor, competențe de comunicare integrate, lectură bazată pe conținut, lectura cognitivă, ESP, text specializat.*

### Introduction

Prolific professional integration in the engineering domain is possible today mainly for specialists with proficient English language command. Therefore, beyond skills and attitudes in Science, Technology, Engineering and Mathematics (STEM), in engineering education due attention should be paid to the process of teaching-learning English for Specific Purposes (ESP). Relentless competition compels engineers to extend their set of ESP competences, particularly, to develop the English specialized discourse in order to be able to communicate to professionals all over the world. Essentially, Dudley-Evans and St. John (2000) emphasize, that the ESP teaching definition implies that “it develops procedures appropriate to learners whose main purpose is learning English for a purpose other than just learning the language system [1, p. 3]”. Accordingly, the main curricular objectives of the ESP course within Technical University of Moldova (TUM) pursue the global appeal - to foster engineering students’ oral and written communicative competence. Thus, in our didactic activity we strive to instill in students the attitude of feeling themselves less as students and more as prospective professionals, who, despite their minor vocabulary deficiencies and grammar gaps, in the nearest future should be able to deal with professional communicative situations.

It is generally acknowledged that reading is an essential skill for academic success. Providing that the undergraduate students’ exposure to spoken English is scanty, still, spreading and acquisition of domain related knowledge is mainly done through the written text, consequently, reading has been indispensable in interpreting, systematizing and assimilating knowledge. According to T. Serova, the educational and research activity of a student is aimed at mastering a certain professional sphere, at forming professional competence; therefore, reading is focused on the future profession and is referred to as profession-oriented reading (POR) [2]. To POR are attributed the following functions: *cognitive* (mental processes of perception, memory, judgement are involved); *communicative* (thoughts, feelings, ideas are expressed, also, information is distributed effectively); *informational* (facts are presented in an objective, logical way using conventional forms of expression); *referential* (denotative language to render factual information is used); *creative* (knowledge, creative ideas are disseminated); *pragmatic function* (professional information needs are satisfied) [2].

In engineering education, the specialized text, whether technical or scientific, is essential not just as a way of conveying domain-related knowledge, but also as a model for writing, as a supplement to lecture, new vocabulary and new ideas source. Nevertheless, university didactic stuff should be reasonable in reckoning too much on first-year students’ reading competence. “As the student moves into the organized bodies of knowledge with their own technical terminologies and special vocabularies, in short their languages, he must to a degree learn to read again [3, p. 456]”. W.Grab and R.Stoller (2011) emphasize that in academic and professional contexts, in which a person needs to learn a considerable amount of information from a text, **reading-to-learn** typically occurs. It requires abilities to remember

main ideas as well as a number of details that elaborate the main and supporting ideas in the text; recognise and build *rhetorical frames* that organise the information in the text; link the text to the reader's knowledge base [4, p. 7].

In reality, most of the students struggle with technical text comprehension and employ a *surface approach* to reading. Being in stark contrast with *deep approach to reading*, where the reader uses higher-order cognitive skills such as the ability to analyze, synthesize, solve problems, and thinks meta-cognitively in order to negotiate meanings with the author and to construct new meaning from the text, *the surface approach to reading* leads to superficial retention of material for examinations and does not promote understanding or long-term retention of knowledge and information [5, p. 21]. However, in academic settings students should be offered time and guidance to master deep approach to reading, where it legitimately belongs.

Thus, teachers in charge of ESP university courses, on the one hand, must approach the set task with the specific needs and goals of their learners in mind, that of gaining deeper and more meaningful engagement with target community texts, on the other hand, selection of methods of teaching, as well as choice of didactic materials could be a challenging endeavor, considering that not all tendencies in language teaching are appropriate to meeting engineering students' needs. For instance, due to paradigm shift in foreign language teaching, the communicative approach has been prioritized for more than a decade, including the ESP courses. As a consequence, the ESP classes focused mainly on vocabulary development activities and on boosting speaking skills. Reading, nonetheless, being perceived as an attribute of traditional language teaching, received minimal attention and was often trimmed to some text-based activities or, even worse, assigned exclusively as an autonomous activity or home task. Accordingly, though paramount in higher education, teaching reading was partially or totally neglected in the language classroom, which resulted in adopting a surface approach to reading by most of the students.

As mentioned afore, another obstacle to ESP objectives fulfillment represent reduced students' motivation for reading due to inadequate text selection - sticking predominantly to prosaic informative texts is not always appropriate to the context of target language learning. Accordingly, uninspiring texts do not instill students' interest, they are unproductive in stimulation of speaking or written output, in this way, they neither favor much the development of students' academic competences nor boost their English language proficiency. Reading, per se, should be an active, fluent process that involves the reader and the reading text in constructing meaning in a specific context. Often, however, it is not. So, a balanced approach to all the skills teaching should be adopted to avoid monotonousness in class, yet, the focus being on reading-to-learn from specialized texts.

### **Integrated Approach to ESP Instruction**

Considering recent developments in instruction pertaining specifically to the teaching of foreign language speaking, listening, reading, and writing, the integrated-skill approach is receiving a great deal of attention from researches and educators in teaching ESP. According to D. Nunan (1998), "language learning is not straightforward: students do not learn the linguistic and grammatical structures one by one in the order presented. Rather, they learn many things simultaneously and imperfectly [6, p. 101]." Optimal ESL communication occurs when all the skills are interwoven in the process of instruction, similar to strands in a tapestry, states R. Oxford (2003). The author views the main skills (listening, reading, speaking and

writing) and the associated skills (syntax, vocabulary and so on) as “overlapping areas of competence”. Other indispensable strands in the tapestry are teacher, learner, settings, and relevant materials [7, p. 6]. In the same manner, E. Hinkel (2006) argues that in order to achieve realistic language learning, integrated instruction has to address a range of foreign language skills simultaneously, all of which are requisite in communication. For instance, teaching reading can be easily tied to instruction on writing and vocabulary, and oral skills readily lend themselves to teaching pronunciation, listening, and cross-cultural pragmatics [8, p. 113]. Furthermore, researchers and university practitioners conclude that the habits of mind that enable students to enter the ongoing conversations appropriate to college thinking, reading, writing, and speaking are inter-related and multi-tiered [9, p. 13]. To strengthen the assumption of meaningful contribution of the integrated-skill approach to a balanced language learning, a range of its advantages is outlined.

- It exposes English language learners to authentic language and challenges them to interact naturally in the language;
- Learners rapidly gain a true picture of the richness and complexity of the English language as employed for communication;
- English becomes a real means of interaction and sharing among people;
- It can be highly motivating to students of all ages and backgrounds [7, p. 10].

More importantly, according to A. Hirvela, within an integrated skill approach, reading is seen as a stepping stone to other skills or as complementing them [10, p. 86]. However, integrated-skill approach exhibits considerable potential for teaching ESP, especially positioning specialized text reading at the forefront of the course as a sample of disciplinary conventions written by domain experts.

*The Integrated Communication Skills (ICS)* approach, developed by Koda K. and Yamashita J. (2018), emerged to incorporate content learning in foreign language instruction in higher education institutions. Being built around the concept of *reading-to-learn* (RL), the approach aims to promote the simultaneous development of language skills and content learning. As a multifaceted construct, RL entails three interrelated operations, each corresponding to three sets of requisite skills:

- a) Constructing text meaning based on linguistic information presented in a text (text-meaning building)
- b) Connecting text information to the reader’s personal experience and prior knowledge (personal-meaning construction)
- c) Reflection on what the reader has learned from the two preceding operations (knowledge refinement)

Thus, in order to develop the ability to use language purposefully for constructing meanings from input, students are asked to connect new information with their schema (real-life experiences and prior knowledge) to generate new insight. As authors emphasize, active and clear commitment of students to the learning process at each step towards knowledge construction is the basic requirement to successful ICS approach implementation [11]. So, language represents the ideal medium for learning content, and content serves as a resource for learning language.

### **Receptive and Productive Skills Integration**

As mentioned previously, most of speaking and writing tasks are reading based. Consequently, receptive skills (reading and listening) and productive skills (speaking and writing) should be mutually supportive. Regarding the integrated relationship of the language

skills, J. Jordan notices that the receptive skills are seen as necessary inputs to the productive skills, with each receptive skill having its place with each productive skill, depending on the appropriate study situation or activity [12, p. 6]. Further on, the interconnection between reading and other language skills is reflected.

*Reading- Speaking.* During the three reading stages – pre-, during and post-reading, students are trained in a wide range of communicative activities, such as making predictions, articulating clearly ideas based on text analysis or critical thinking, making comments on the text, establishing links between main idea and supporting details, delivering presentations, exhibiting judgements, debating on topics in focus – these are just a few examples of reading-speaking skills interconnection. Though reading is an individual skill, one of the best ways to instill in students the need to read and discuss specialized texts is to bind together the integrated-skill approach and cooperative learning. Individual, pair and group activities, as well as whole-class active interaction, enable those skills gradual improvement, thus stimulating students' motivation to read and learn English.

*Reading- Listening.* Familiarity with the specialized text style, with its specialized vocabulary ensures better students' reception of the audio or video recordings, likewise ameliorates comprehension of their teacher's and peers' speeches. Recorded texts can function as a sample of terminology pronunciation, sentence rhythm and intonation, cross-cultural specialized pragmatics.

*Reading- Writing.* The two processes are mutually beneficial and complementary, it is known that good readers make good writers, while writing experience helps students become better readers. Written texts serve as a model for reproduction, i.e. students benefit from an awareness of profession-oriented text style, writing conventions, specific linguistic and grammatical structures, which are subsequently applied in students' writing. Yet, W.Grab and C.Zhang (2013) notice that using textual resources in academic writing tasks, such as summarizing, synthesizing information, critically responding to text input, or writing a research paper represents a major challenge for foreign language students, and it requires a great deal of practice [13, p. 14].”

### **Methodology**

Our study has aimed to examine how making use of specialized text reading competence can optimize ESP learning and develop all four basic language skills, correspondingly, which approaches and methods are relevant to effective instruction implementation.

However, there was undertaken a research, where second-year students from the Urbanism & Architecture as well as the Construction, Geodesy & Cadaster faculties were involved, the purpose of the experimental study being to foster students' reading competence from the perspective of integrated-skill approach. The adopted instructional model was divided into three systematic phases through which pre-reading, during reading and post-reading strategies were explicitly taught over one semester. It was found out that the students improved their reading comprehension and learning skills after the experiment implementation. There were documented significant differences between the students' pre-test and post-test reading scores. As a research outcome, there has been published the methodological elaboration “Teaching Reading” [14], where reading strategies to be focused were systematized according to the three text-reading stages. Designed from the perspective of integrated approach to competences, the didactic elaboration aims at training an active,

competent reader, which adopts a deep approach to reading specialized texts; attempts to raise students' awareness regarding the use of reading strategies - a prerequisite of deep engagement with the text; familiarizes the students with language structures and text specific architecture; also, encourages reflection and critical thinking through heuristic techniques.

### **Implementing Integrated Skills Approach Recommendations**

A number of issues are to be considered in fostering students' reading competence through integrated skills approach. It requires teacher's commitment, time, thorough planning.

First, in order to stimulate curiosity and motivation for reading, teachers should 1) exploit open-ended expository texts which raise a professional/social/ethical problem, thus, offering students room for suggesting possible solutions to it; 2) bring into discussion both inspiring topics which value achievements, innovations in the studied domain, and unveil engineering failure caused by negligence and human errors; 3) recommend for reading authentic, reliable resources in different *format* (print or online), various *style* (description, instruction, advertisement, cause-effect, argumentative text, etc.) and *purpose* (reading for learning, selecting relevant information, satisfying professional curiosity, etc.), 4) the last but not the least, offer for reading authentic, accessible texts in terms of appropriateness to students' linguistic level. Not only the texts should be authentic, but the activities too. In our opinion, when students are motivated to read thought-provoking content, they are open to improving all their language skills to gain access to that information and ultimately generate new insight.

Second, an exhaustive ESP lesson planning is essential, we need as well to make sure that our aims are clear to all stakeholders involved and that the materials and tasks are appropriate. Because of the inherent difficulties associated with text comprehension and eventual display of text content by students, teachers should be aware what problems are likely to arise (students' lack of subject matter knowledge, frustration for concept-dense content of specialized texts, gaps in general language knowledge, unawareness or inadequate use of reading strategies, etc.) and be prepared for potential trouble spots in advance.

*The priming stage* of the reading lesson consists in providing 1) a *context* for reading: we need to recreate the circumstances in which readers operate in the real world outside the classroom;

2) a *reason* for reading: put the students in the situation where they want to confirm or reconsider certain beliefs, stimulate curiosity by asking a question; 3) *language input*: the vocabulary that the learners will come across in the reading is covered in pre-reading activities [15].

It is important to note that even though this is a preparatory stage there are involved basic and auxiliary language skills; there is a lot of student participation and that all of the language in these activities is used with a purpose. Making predictions, warm-up discussion, brainstorming, focusing on visual cues, previewing of text layout, watching of a short video - all activities come to activate students' schemata at the pre-reading stage. It has been known since the research of Bartlett in 1930s that learners understand incoming information, if they can fit it into their schemata - a hypothetical mental framework for representing generic concepts, background knowledge, experiences stored in the memory. It is essential to activate

students' schema before exposing them to new information, written or spoken. Taken that texts do not contain meaning; rather they have potential for meaning, it is exclusively during the interaction between the text and the reader when meaning is generated. Research papers show that meaning is created in the course of reading as the reader draws both on existing linguistic and schematic knowledge and the input provided by the printed or written text [16, p. 3]. Teachers need to bear in mind that a text on the page may generate very different texts in the minds of the learners, claims S. Thornberry (2005) [17]. It all depends, however, on how much knowledge the reader brings to the text and how much he wishes to extract from it.

### Conclusions

Numerous academic papers have revealed that effective reading competence represents the most significant medium for learning content, and content serves as an inexhaustible resource for learning language. Making use of specialized text reading competence, students are capable of optimizing both content learning and developing language proficiency. The simultaneous development of all four basic language skills and content learning can be achieved by means of integrated skills approach implementation.

To ensure more meaningful engagement with specialized texts, we advocate for their careful selection and explicit teaching of reading methods and strategies to engineering students. In this way, students are more likely to scaffold deeper domain-related knowledge and exhaustive specialized communication competence. Starting from explicit teaching of strategies to step-by-step guiding and scaffolding, till the point students apply reading strategies consciously and, finally, reaching automaticity and confidence in reading –that is the itinerary to be pursued by ESP teachers and their students.

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