OPTIONS, PRACTICES & POSSIE
OF EAP & ESP PRACTITIONE

2nd International EAP/ESP Confe

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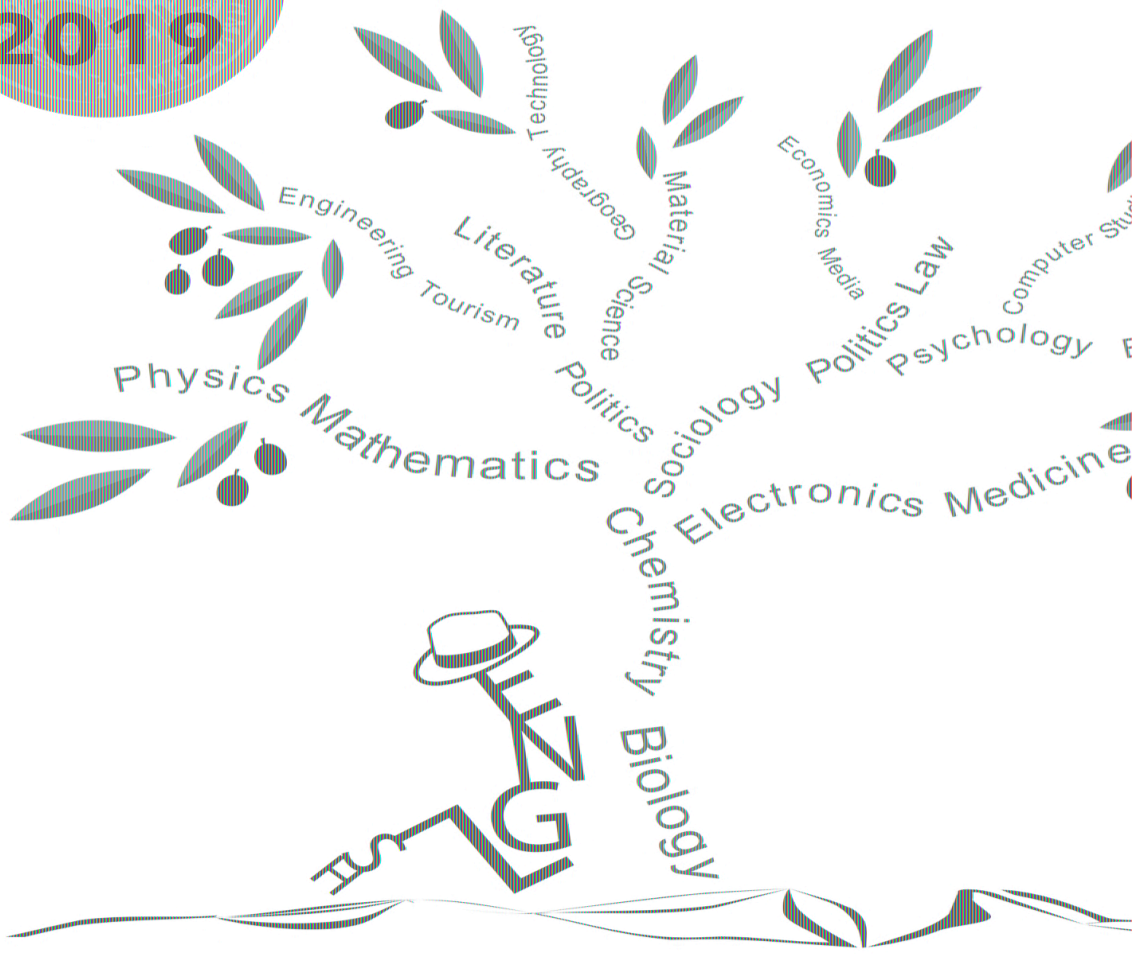
20-23 September 2019

Proceedings



Edited by Kiki Divini

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2ND INTERNATIONAL EAP AND ESP CONFERENCE

Options, Practices and Possibilities of EAP and ESP Practitioners

Conference Proceedings

UNIVERSITY OF CRETE, 20-23 SEPTEMBER, 2019

Editor
Kiki Divini
University of Crete

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Opening Address

Dear Professors and colleagues,

On behalf on the organizing committee, it is my great honor to welcome you to the 2nd International Conference on English for Academic purposes and English for Specific purposes organised by the EAPCRETE team of the University of Crete and hosted by the Computer Science Department of the University of Crete.

We are really excited to see that so many of you have joined us in this academic and professional event. We are happy to have managed to attract an extraordinary cast of presenters and participants from across the world, who have come together to share experiences, insights and tips at the launch of the 2019 academic year.

In this conference we have aimed to grant you inspiring training opportunities covering a wide spectrum of themes and in areas such as

- Academic literacies, EAP corpus and pedagogy;
- Genre analysis, stylistic variations and linguistic barriers;
- Evaluation of courses, systems and skills, and
- Learning technologies in ESAP, to name just a few.

Interestingly, the largest number of talks are based on teaching practices and teacher interventions proving that we, EAP and ESP practitioners, are eager to try new ideas, to experiment with different teaching approaches and methodologies, in order to update our knowledge and skills, so that we become better teachers and live up to the learning expectations of our students.

Equally important in our conference are the stimulating networking opportunities that are ahead of us during these four days . As we all know, it is during these brainstorming encounters with colleagues that new partnerships and collaboration may arise. By joining EAP_Crete you have become a member of a great EAP community and we hope that you will stay in touch after the conference following us on twitter, facebook and on the EAP_Crete website.

At this point, I would like to extend a big thank you to all of you present; special thanks go to our Key note speakers, Dr Ruth Breeze from the University of Navarra, and Dr Lisa McGrath from Shefield Hallam University. Last but not least, I'd like to thank my colleagues Maria Koutraki, Noni Rizopulou, Manolis Sisamakis and the team's heart and soul, Kallia Katsamboxaki-Hodgetts. Without their hard work and concerted effort none of this would have been possible.

Enjoy the conference and we hope to see you again in one of our future events.

Kiki Divini
Organising Comittee Chair

Foreword

In this online open access EAP_CRETE 2019 conference proceedings volume we are pleased to include work by Angela Christaki from the Hellenic Mediterranean University, Greece, research by Dr Maria Melissourgou, Dr Laura Maruster and Dr Katerina T. Frantzi from the University of the Aegean, Greece, and the University of Groningen, Netherlands as well as research by Ivanka Ferčec , Yvonne Liermann-Zeljak, and Dragana Božić Lenard from Josip Juraj Strossmayer University of Osijek, Croatia.

In line with the conference's theme on materials design and production, which is at the core of ESP practice, Angela Christaki presents in detailed and step-wise fashion how she designed and implemented an ESP course for nutritionists and dieticians. Following this, she worked to produce a course book to meet the specific language needs of the targeted learner group. In her paper *'Creating a Syllabus and a Course Book for Nutritionists & Dietitians'* published here Angela takes us through the process supporting each step with pertinent academic theories from the ESP domain. Reading Angela's paper we are reminded of the significance of sound course design practices and gain insight into the challenges facing EFL instructors who become ESP syllabi developers.

In their paper **'***Games and Engaging Activities in the ESP/EAP Classroom*' Ivanka Ferčec , Yvonne Liermann-Zeljak, and Dragana Božić Lenard explore the benefits and challenges of using educational games with adult learners and survey Croatian ESP/EAP teachers' perceptions and attitudes towards this practice. Although there is ample evidence regarding the benefits of using games and other engaging activities in the classroom, the co-authors wanted to detail the types, frequency as well as the specific lesson stage(s) at which tertiary education ESP teachers in the Republic of Croatia use such activities in their classes. Further, Ferčec et al. report on the challenges facing ESP instructors which may deter them from designing and implementing such engaging and motivational activities.

In keeping with the conference's theme of genre analysis and corpus linguistics, Melissourgou, Mauster and Frantzi state that methods drawn from these two domains 'join forces' in their paper *The Research article: Stylistic variation across disciplines and change over time* in which they aim to investigate if and to what extent the Research Article has become more or less formal in the past fifty years. They drew their corpus from five high ranking journals in the disciplines of Philosophy, Economics and Medicine.

Taken together the papers published here address the issues of student motivation, syllabus and course design, materials writing, and scientific writing while each one ultimately aims to inspire good teaching practices and advance the learning experience.

Kyriaki Divini
University of Crete
Editor

All three submitted papers were peer-reviewed and are presented here in alphabetical order according to the 1st author's last name.

Creating a Syllabus and a Course Book for Nutritionists & Dietitians

Christaki Angela
Hellenic Mediterranean University of Crete

Abstract

The present paper entitled: "Creating a Syllabus and a Course Book for Nutritionist & Dietitians" presents the stages followed in order to design a Syllabus and develop the course book for the department of Nutrition & Dietetics of the Hellenic Mediterranean University of Crete. First, the necessity of Needs Analysis and Data Analysis, as a means of tracing the students' lacks and future needs, is justified and their stages are described. Furthermore, the designing of the two questionnaires (one for the students and one for the teachers) in order to carry out a Needs Analysis (NA) is presented and the effective use of the data derived from the NA in the designing of the suggested syllabus is analysed. Along with the presentation of each stage for the creation of the syllabus, the theoretical background that underlies and supports it is discussed. Additionally, all the tasks of the course book, the teacher's book and the audio CD are presented and justified in terms of the theoretical knowledge that underlies and supports them. Last, the Certificate of Attendance, and the ESP Examination Certificate that graduates can obtain is introduced. The certificates are provided by four international bodies and are worldwide recognized, something that can be very useful to the graduates' future career in the field of Nutrition & Dietetics.

Introduction

English for Specific Purposes (ESP) teaching concerns mainly adults who have already been in the work market and university / post graduate students, professionals, scientists who want to be informed and keep up to date with the latest developments in their field. ESP is a relatively new branch in the field of ELT. In order for some clarifications between ESP & EGP to be made, certain questions need to be answered "what is the difference between ESP and EGP?" "what is the methodology adopted in the ESP environment?" "what is the teacher's and learner's role".

Theoretical underpinnings

1. EGP versus ESP

ESP is a branch of ELT that came as a support to the increased interest for specialized / terminology courses. The most important differences between ESP and EGP are **motivation** and **specificity.** In ESP the learners have a "learning contract" according to Rogers (2002) with their teacher which refers to the outcome of the course. Taking into consideration the fact that in ESP the learners know "why" they want to learn English, one realizes that they are highly motivated both intrinsically and extrinsically compared to the EGP students who are mostly extrinsically motivated. Secondly, the texts taught are subject specific and their linguistic features are exploited through a register analysis of a particular genre.

Additionally, in ESP there is a transition from teaching English for no obvious reason (TENOR) to teaching situations where learners' needs with respect to learning strategies are highly exploited. The whole environment within which ESP teaching takes place is different. ESP courses are "normally goal directed", constrained by a limited time period and are taught to adults in homogenous, regarding the type of work or studies, groups. Concerning the texts taught, there is a transition in the way they use them: from texts as a linguistic object (TALO) to texts as a vehicle for information (TAVI), thus making teaching learning centered and communicative as emphasis is on fluency, rather than on accuracy.

Another very important difference between ESP and EGP concerns the tutor's role, which in this case is "multi-dimensional". As Dudley-Evans & St John (1998: 13--17) note, apart from teacher he / she is course designer, materials provider, researcher, collaborator and evaluator of learners and course. Moreover, the teacher sometimes becomes a language consultant, enjoying equal status with the learners who have their own expertise in the subject matter (ibid: 4). In particular, concerning the teacher's / practitioner's role as a materials provider, in many cases the syllabus has to be created by the teacher who takes the responsibility of it being coherent to the rest of the subjects, relevant to the field, suitable to the students' level / needs and as updated as possible.

However, it is not only the teacher's role that changes. Learners adopt a new, more responsible role as well. ESP learners are almost always adults, autonomous and most of the times have their own fixed opinion about what they should be taught and the way teaching should take place. Consequently, in order for an ESP course to be effective, there are a lot of parameters to consider and it is the tutor's responsibility to make them all work for the benefit of the learners

2. Needs Analysis in the ESP context

In ESP courses the learners' needs determine the components of each course and needs analysis is a very useful tool in the tutor's hands. Dudley-Evans & St John (1998: 121) point out: "The key stages in ESP are needs analysis, course (and syllabus) design, materials selection (and production), teaching and learning, and evaluation" and "Needs Analysis is the process of establishing the "what" and "how" of a course". It is after a careful analysis of the students' needs that the content and methodology appropriate for each course will be determined.

Munby (1978) was the first to stress the importance of NA or Communication Needs Processor (CNP) as he called it. He established two stages of NA: the CNP and the interpretation of the profile of needs derived from the CNP in terms of micro skill and micro functions. In practice, and keeping all the above theories in mind, each ESP tutor needs to ask him / herself: "Why does this learner need to learn a foreign language?" and: "What and When and How and Where and Who". Consequently, an effective researcher should ask "who" is going to be involved in the process, "where" and "when" the learning is to take place, "what" the student needs to learn and "how" learning will be achieved, before starting to design a syllabus. As Hutchinson & Waters (1987: 22) point out, the questions above are interdependent in course design and can be listed under three main headings: language descriptors (what?), theories of learning (how?) and NA (who? why? where? when?). Therefore, tutors should design courses to meet learners' needs and bridge the gap between the learners' needs and their anticipated goals.

2.1 Stages in needs analysis

In practice, NA is divided in three types: pre - course analysis, on - going NA and final end or post course evaluation, all of which are equally significant in order to plan

and carry out an effective course that will reflect the students' real needs and appeal to their future needs.

As far as pre - course analysis is concerned, there are three classifications: Present Situation Analysis (PSA), Target Situation Analysis (TSA) and Learning Situation Analysis (LSA). Also Pilbeam (1979) quoted in Dudley - Evans & St John (1998: 57) categorizes needs analysis into two kinds: TSA, which sets down the actual activities that the participants have to carry out and PSA, which outlines a profile of personal ability in which the participant's proficiency in these activities is evaluated. There is also the Deficiency Analysis (DA) which concerns the filling of the gap between present and target situations by providing information on the necessities that the learner lacks and that can form the basis of the language syllabus. Last, Means Analysis (MA) is also important as it looks at the environment in which a course will run, in other words it deals with the classroom culture and the management infrastructure and culture.

Due to the fact that in ESP courses learners are usually grownups, mature and autonomous, with previous experience of the English language, their opinion about the content and the aims of the course is and should be highly appreciated. Similarly, apart from the students' NA, the subject specialists' opinion should be taken into consideration as well. They have both the knowledge (real content) and the experience to help the English teacher design the course and they can also provide the teacher with materials and information. For this reason, a questionnaire addressed to them would be very enlightening. Consequently, before the course starts, the tutor should prepare one questionnaire for the learners and one for the teachers. Both questionnaires should be practical (easy to administer and interpret) and provide valid and reliable data. The NA method adopted in this case study is the common deductive method of a questionnaire which provides various forms of information as the basis for course design.

Methodology of the present study and Findings

1 The teaching situation and the reason for its selection

I have been teaching in the department of Nutrition & Dietetics of the Hellenic Mediterranean University of Crete for about ten years and I selected this ESP area to make an intervention in order to improve the teaching of English in the particular department. In this department, English is taught as a foreign language in two academic semesters: **General English** is an optional course and the students can enroll in the first semester. During this course students are taught Academic writing, Reading comprehension of scientific papers, making presentations etc. The **English Terminology** course is compulsory and all students must attend in the second semester. During this course students are taught terminology about Nutrition and Dietetics.

My intervention to the designing of a suggested syllabus and the development of a course book for the particular department will be presented and justified in this paper. The first step was to trace my students' lacks and future needs. In order to do that, Needs Analysis was imperative and the designing of two questionnaires, one for the students and one for the content teachers, would be the most useful tool. The analysis of the data defined and targeted further teaching and after numerous changes and modifications, the syllabus was designed and the course book began to be formed.

2 Description and justification of the questionnaires

Two questionnaires were designed for the particular situation: one for the students and one for the teachers. The format of the **student's questionnaire** consisted of twenty five questions which students were supposed either to answer or to put in order of hierarchy. It comprised three areas: area A dealt with the students' personal profile (PP), with the questions aiming at getting personal information about the learners and their level of English. Area B dealt with the students' Present Situation Analysis (PSA). The questions asked in this part aimed at figuring out the current attitude towards the English course and the way it had been taught. The third area C dealt with the students' Target Situation Analysis (TSA) with the questions aiming at figuring out how the learners expected to use the English language in the future as well as their expectations from the particular course.

The format of the **teacher's questionnaire** was similar to that of the student's questionnaire but more extensive. It comprised 65 statements that had to be ranked in

order of importance and three open - ended ones that needed to be answered. It started with Part A which dealt with the (PP) of each teacher. This part focused mostly on each teacher's teaching experience and his / her disposition towards the English language in general. Part B (TSA) was composed of several questions aiming at figuring out the importance of each skill. The subject specialists were asked to prioritize the skills that students would eventually need, according to their opinion. The questions were the same as the ones given to the students, intending to find out whether there was a gap between the actual needs (defined by the subject specialists) and the anticipated needs (as expressed by the learners).

3 Interpretation of the data from the student & teacher questionnaire

With regard to the **student's questionnaire**, the data was analyzed in three areas: the (PP), the (PSA) and the (TSA). As mentioned before, each question had a particular purpose. For this reason, the students' answers to the questions of the survey were categorized, ranked and the percentages were calculated in order for the interpretation to be made. Due to the fact that the questionnaires were not enough, some generalizations were made and some percentages were presented comparatively.

In general, evaluation and interpretation of the data of the students' questionnaire was quite difficult and the outcomes were sometimes conflicting and confusing. In particular, the answers of the second part, concerning their present situation analysis, were personal and reflected the way the students "saw" themselves. In this part, students claimed that they had quite serious problems with grammar and faced some difficulties with writing and listening, whereas they seemed to have fewer problems with reading and speaking. Whether they had had an objective opinion about their skills or not, remains to be proved. Concerning the students' target situation analysis, their choices appeared quite rational as they insisted on the importance of the four skills in order of hierarchy: reading, listening and speaking and last writing. Furthermore, the majority of the students appeared to be interested in listening-speaking and in working in pairs / groups. Of course one should take into consideration the fact that they did not seem to appreciate the use of technology and its integration in the teaching process, something that was quite unexpected since students of that age usually devote a lot of their time on computers and it would be

quite natural to appreciate educational technology more. Secondly, the fact that they ranked word lists memorization first is quite strange but as mentioned earlier, they must have done that because they thought that this would be the "correct" answer. In conclusion, in the interpretation of the data, there was an attempt to find out some things about students and make some generalizations concerning their ability to learn and the future use of English.

In the following quotation Dudley- Evans & St John (1998: 126) suggest that the aim of needs analysis "…is to know learners as people, as language users and as language learners, to know how language learning and skills learning can be maximized for a given learner group; and finally to know the target situations and learning environment so as that we can interpret the data appropriately". The **teacher's questionnaires** aimed at achieving all the goals above. It consisted of two parts: the (PP) and the (TSA). As mentioned before, each question had a particular purpose and aimed at identifying something. Similarly to the interpretation of the data of the student questionnaire, the outcome was presented compraatively in order for some generalizations to be made.

It is obvious that there was no point for PSA for the teachers' group. One has to admit that the teachers had been very accurate in their choices selecting skills and sub - skills that would really facilitate our students both in their studies and in their profession later on, something that would facilitate research. Moreover, since the subject specialists' ranking had many similarities to the students', one can realize that it shows some validity as the students seem to have realized the target situation they are aiming at and at the same time, the subject specialists appear to be realistic and up to date about the situation the future nutritionists / dietitians will have to deal with in the future. Consequently, the results of the survey appear cross checked and therefore valid. That is why Mac Namara (1996: 91-116) agrees that "Consultation with expert informants and target situation needs analysis and observation" are very important in NA.

The suggested syllabus for the department of Nutrition &Dietetics

Once the issue of ESP had been cleared out and Needs Analysis had been completed, the basis for the creation of an appropriate syllabus was set. In order to present a

thorough suggestion for the creation of the syllabus, several issues such as its philosophy, its aims and content as well as learners'/course evaluation had to be considered. In general, the designing of the syllabus for the department of Nutrition & Dietetics of the Hellenic Mediterranean University of Crete was based on theoretical knowledge, research and personal experience and it reflected the students' present and future needs. Moreover, it was designed in accordance with similar Greek curricula (Government Gazette 304 / 13-3-2003) (www.pi-schools.gr) and with syllabi for the technological education for naval English and mechanical engineer. It concerns a two-semester course, the philosophy underlying it, its aims (general and special), its methodology and the way students should be evaluated.

1 The philosophy of the syllabus

The syllabus, part of the curriculum for ESP in the particular department of Nutrition & Dietetics is in accordance with the CEFR, 2001 for languages thus depicting an international "common core" educational policy which predominates all over Europe. The whole philosophy of the European Union (EU) lies in the principle of communication among people, variation, intercultural understanding etc.

The group of students that are the focus of this paper study in tertiary education. Some of the graduates of this department might continue with post graduate studies or work abroad. They will be considered as "citizens of the world" within a globalized society. Also, the graduates that will work in Greece will eventually face a changing reality in a multicultural, multilingual environment. For this reason, the proposed syllabus is contemporary and reflects the principles that are asserted by CEFR, 2001 which came as a necessity to the changing new world and which provides a framework for the elaboration of language, syllabi, curricula, examinations, textbooks etc. that is commonly agreed and widely adopted across Europe. It explicitly describes what language learners have to learn to do, the "can do statements", in order to use a language for communication, and what knowledge and skills they have to develop. The framework also defines levels of proficiency, which allow learners' progress to be assessed and categorized at each stage of learning and on a life - long basis. For all the reasons above, the proposed syllabus aligns with the principles of CEFR, 2001 and is orientated towards the European-global reality.

Apart from the content specific language that the students of this department must acquire, the syllabus promotes intercultural and social awareness, autonomy, learning to learn and lifelong learning. In other words, it urges students to think and act globally in a humanistic way and at the same time adopt a more academic and practical attitude towards learning. Knowledge is connected to continuous research and information about the latest developments in the field. For this reason, students are trained to learn how to learn and adopt a positive attitude towards new information throughout their lives (life - long learning / learner autonomy) as Delor (1996) proposes.

Furthermore, the syllabus reflects the principles of humanistic education, aiming at the development of the students' personality (cognitive and emotional development) as a whole and their normal adjustment to society.

Moreover, the ability of collaboration for solving problems or creating something is promoted. At this point, collaboration not only among students of the same institution but also with students from similar institutions abroad either via the internet or within exchange programmes such as Erasmus+ is promoted. Certainly, it can be concluded from the above that constant implementation of educational technology is imperative.

Another aspect that has been taken into consideration in the formation of the new syllabus is the issue of interdisciplinarity. The "mixing" of several subjects (in the form of parallel teaching, or the teaching of the English subject in the computer lab) is promoted.

Another parameter that is often left aside in the formation of a new syllabus is that of diversity and personal variation (physical, emotional, mental). Students having learning difficulties can smoothly follow the learning process through reader friendly tasks. Last, principles of ecology, protection of nature, human rights, sustainable development and democratic citizenship are promoted in this syllabus particularly in this institution where focus is on nutrition and humanity in general.

The aims of the syllabus within the curriculum

The syllabus proposed reflects the principles that underlie its philosophy and include the knowledge and skills required for the graduates of this department. As a result, it is divided into three broad sections which are interrelated: linguistic competence, plurilingualism, pluriculturalism. Students must learn the English language as a social act rather than an independent system of structures and meanings. Language is learnt to help students communicate in a real multilingual, multicultural society and communicate knowledge in their field.

Students are expected to:

-be taught the grammar, syntax, vocabulary necessary as well as language functions for communication purposes in the field of nutrition / dietetics.

-be taught special terminology concerning nutrition / dietetics.

-develop special skills and sub-skills which are necessary for effective communication in their professional environment.

Apart from communicative, teaching is learner centered as students actively participate in the learning process and thus are motivated. In this way, they are urged to be autonomous learners and the basis for life - long learning is set. It is also subject specific (related to nutrition and relevant subjects) innovative and motivating. Furthermore, teaching is skills centered and supplemented with the incorporation of Computer Mediated Communication (CMC) and Computer Assisted Language Learning (CALL).

3 The methodology employed in the syllabus

The methodological approaches set the basis for effective teaching to take place and provide guidelines for the students' "holistic" development. Teaching goals contribute to the cognitive field of each subject, and the student's general education. In this way, the development of critical thinking is promoted, the already existing knowledge is activated and the teacher has the flexibility to make his / her teaching more modern and up - to - date (Matsagouras 2002).

Consequently, the methodology that underlies the syllabus is eclectic and incorporates the issues of communicativeness and learner / learning centeredness. Students are expected to be able to communicate in real life situations (social interactions, business environment etc) using the four skills (reading, speaking, writing, listening). They are

provided with knowledge about nutrition through authentic material from articles in journals and newspapers on contemporary topics. In order to teach them effectively, askills centered, communicative way of teaching is adopted. Moreover, the communicative way of teaching especially in the field of ESP, celebrates the use of the Task Based Learning (TBL) approach for effective lesson planning.

Concerning the topics to be taught, they are subject- specific and are followed by appropriate tasks to promote their practice. Therefore, a great degree of content and language specificity is present in this syllabus. The topics selected provide students with subject specific knowledge about nutrition & dietetics and at the same time practice their linguistic knowledge and sociolinguistic experience. However, the topics taught do not aim just at broadening the students' subject and linguistic knowledge but also promote principles of globalization, peace, and ecology thus contributing to the students' mental, social and cultural development.

Furthermore, in this way holistic learning is enhanced and interdisciplinarity is promoted. Similarly, collaboration, even in the form of collaborative teaching, with the teachers of other subjects is imperative.

Moreover, teaching is based on learners. They are encouraged to think critically about an issue, make suggestions / decisions, collaborate with other students and gradually create and understand the functional rules that underlie the use of the English language. To achieve this, pair / group work activities are assigned to students. They learn to collaborate, to exchange ideas and accept others by carrying out such projects. While they collaborate with their fellow students the teacher goes round monitoring. He / she acts as a facilitator, trouble shooter rather than as the master of knowledge that rules the classroom. In this way, there is active, participatory teaching and learning that promotes not only English language acquisition but also development of the students' personality holistically. Gradually, students become autonomous and their personality is developed globally. Project work is also very helpful in the achievement of students' autonomy and their ability to collaborate, which is considered as a useful "soft" skill in the work market. Thus, students are encouraged to work by themselves or in collaboration with their fellow students to produce an outcome. While working on a project, students can be asked to gather

information from the internet, library and journals about a topic relevant to their profession and acquire subject knowledge about it. In this way, a real purpose for learning the English language is provided and relation to everyday life is achieved.

The development of a course book for Nutritionists - Dietitians

1 General Information about the book

The course book is called “”Nutrition & Dietetics” and it was published in 2018 by EXPRESS PUBLISHING (Career Paths series). Christaki, A. & Dooley, J. are the co-authors of the book. It is an educational resource for nutrition industry professionals who want to improve their English communication in a work environment, incorporating career-specific vocabulary and contexts. It comprises 45 units of gradual difficulty (three levels of difficulty, one every fifteen units) that immerse students in the four key language components: reading, listening, speaking and writing. It contains 400 vocabulary terms and phrases and some grammar and language factors are analyzed in each unit. The Teacher’s book provides detailed lesson plans and suggestions for effective teaching. Answers to exercises are laid out, as well as the audio scripts for the listening tasks. The Audio CD provides simulated-authentic recorded material by native speakers of English for the listening tasks. DigiBook is an award winning, innovative, interactive and motivating way to educate students through technology and game-like activities.

2.1 Receptive Skills Development in the course book

2.1.1. The Reading tasks of the course book – Presentation and Justification

After analyzing the data of NA, it is depicted that the graduates of this department are expected to be engaged into reading foreign bibliography (books, journals, internet sources etc). Consequently, techniques of text elaboration for the improvement of the students’ reading / comprehension ability should be taught. Students should learn how to use all the features of a text: headings, layout, and typeface in order to be able to elaborate it. They should also realize the use of cohesive devices among sentences which promote understanding of the relations that exist within a sentence and between sentences and allows for global understanding of a text

In this book, students are engaged into "the three-phase framework" as described in Beaumont (1996 unit 4: 19) with pre, while and post reading activities. Each unit of the book starts with a pre-reading task, which aims at activating students' prior knowledge on the topic (content, formal and linguistic schemata), urging them to guess what is going to follow, as well as setting a purpose for reading and generating discussion. As Beaumont points out: "good pre-reading activities, improve learner's comprehension and deepen their interaction with the text" (Beaumont, 1996 unit 4:25). Then, students are engaged into a while-reading task. They are asked to read the text and answer some comprehension or T/F questions. While-reading activities involve skimming: "A reader's purpose in reading a text may be to get a general idea of what it is about" (Beaumont, 1996 unit 1: 30) and scanning "A reader's purpose in reading a text may be to locate a specific piece of information" (ibid: 30) and deal with a more intensive and thorough reading of texts. The fifth task of the unit is a post reading activity during which learners can work on the information they have got from the text and produce something of their own.

The texts used in each unit are authentic (webpage, pamphlet, journal, paper, article etc): "Texts written for use by the foreign language community, not for language learners" (Nuttall, 1996: 177) "texts written to say something, to convey a message and not simply to exemplify language" (Williams, 1986: 25). In this way, learners are exposed to natural language and are introduced to real life situations. Some texts are authentic-like or simulated authentic and they focus on particular points that need to be discussed and they appear natural enough. With the use of authentic and adapted texts, students are motivated since they have a purpose for reading: to get informed about something they're interested in or they already know something about. As Williams points out "Interest is vital, for it increases motivation, which in turn is a significant factor in the development of reading speed and fluency" (Williams, 1986: 42). Last, teacher is urged to supplement the course with new, contemporary texts (written or via internet) about the latest scientific knowledge in the field. Text topics are related to Nutrition & Dietetics: (Nutrition in the Life Cycle: Nutrition during pregnancy, lactation, toddlerhood, childhood, adolescence, adulthood, the elderly, Body Composition, Nutrition & cancer/diabetes/alcohol, Eating disorders, Human Anatomy, Organic Food etc). To conclude, one typical feature of ESP is the transition from Text As a Linguistic Object (TALO) to Text As a Vehicle for Information

(TAVI). In this book effort has been made so that the reading skill is practiced on this basis

2.1.2. The Listening tasks of the course book– Presentation and Justification

As it is depicted in NA, both students and teachers appear to be aware of the usefulness of the Listening skill. Listening is "the skill of extracting meaning from a stream of spoken discourse" as Burges suggests (Burges, 1996 unit 1:2). This skill is divided into listening to a monologue and listening and speaking depending on the student's participation (listener, eavesdropper or participant).

Task 5 of each unit combines reading, listening and speaking skills as learners are asked to listen and read the text again and express their opinion on a relevant topic. Tasks 6 and 7 are while-listening activities. Learners are asked to fill in gaps, answer True or False questions, note taking, fill in ideational frameworks (tree diagrams, grids, flow charts) while listening to "simulated authentic" material which as Burgess (2000 unit 1: 6) suggests, refers to language produced for a pedagogical purpose but exhibiting features that have a high probability of occurrence in genuine acts of communication. Learners are taught to recognize key lexical items and the role of discourse markers as well as to identify the topic, purpose and scope of the listening text. In this way, students are trained to tune into / out of a conversation which is helpful in real life situations. Developing this skill and thus making learners communicatively efficient has been a challenge in the ESP courses. Listening skill practice should be closely related to real discourse in the real world outside the classroom.

2.2 Productive Skills Development in the course book

2.2.1 The Speaking tasks of the course book– Presentation and Justification

As depicted in the Present Situation Analysis of the Students' questionnaires, students appear to be aware of the difficulties they face when asked to produce spoken discourse. For this reason speaking skill should be taught thoroughly. Speaking is interrelated with listening. It is divided into producing a monologue (making a

speech/ presentation) and listening and speaking (participating in a dialogue). Consequently, different micro skills are needed for developing each one.

Speaking task 8 of each unit is designed based on Nation's (1989) criteria. There are "roles": features that govern learner's participation and are divided into theatrical (nutritionist – obese person) and task based (one asking the other answering). There is an "outcome": a clear purpose for the particular task, there are "procedures": the steps to be followed (guided activity), there is "split information": one person has the information that the other person needs. Last, there are "challenges": features that make the task more demanding, more puzzling or faster (time limitations, quantity, competitions, prize settings etc). Similarly, tasks follow Johnson's (1989) five principles of communicative speaking tasks: information transfer, information gap, jigsaw, task dependency and correction for content

Some tasks might engage students into producing a monologue (explaining charts, describing process, making a presentation etc.) or participating in a pair/group problem solving situation. Students are taught the use of several cohesive devices and techniques. The use of ideational frameworks (tree diagrams-flow charts) is encouraged as they facilitate structure and organization of spoken monologue. In the teacher's book there are models of suggested dialogues, which are helpful to the teacher.

Last, group or pair-work activities (role-plays, case studies, problem solving situations) support interaction among students as according to Ur (1981: 7-9) they heighten participation, motivate students, free teachers and help learners learn from each other. ESP teachers should realize that "Language is speech, not writing" (Stern 1983 quoted in O' Brien 2000 unit 2: 23). Recent studies as well as the need for communicativeness have caused a turn to "learning to speak" attitude. Emphasis is given on fluency rather than on accuracy and courses should be cognitively oriented.

2.2.2 The Writing tasks of the course book– Presentation and justification

As deduced from the students' and teachers' NA neither of them considers writing skill as a primary one. They consider that only students who wish to continue with further studies need good writing skills. Of course this is not the case, as writing is

essential for: a) sharing ideas / knowledge within the international scientific community by writing articles, papers, journals, abstracts, charts, diagrams b) communicating via e-mails, colleagues, platforms etc and c) writing CVs and cover letters, filling in application forms, responding to job applications etc.

To finish off the unit, there is writing activity 9. It is interrelated with the previous tasks and students are asked to produce an outcome. In the first units the task is guided and eventually it becomes free production. In this way, as O'Brien (1999 unit 3: 21) suggests, students are exposed to examples of the text types they will have to produce. By being exposed to several discourse types, students are familiarized with their organization content, style and structure and relevant schemata or writing plans are constructed in their minds. When they are asked to write something similar, the appropriate form is recalled. In the teacher's book there are models of suggested pieces of writing which are helpful to the teacher.

Moreover, O'Brien (ibid) mentions that students can read and understand more advanced language than the language they can produce. Consequently, by being exposed to more advanced text-types, students will be familiarized with them and eventually they will adopt the writing techniques in their own writing. For this reason, a thorough selection of text-types is imperative. Especially in the field of ESP this technique is widely applied, since students read subject specific, scientific texts which are definitely more complex than the texts they can produce.

Task instructions clearly define the purpose and audience of the task. In other words, students know why they have to produce the piece of writing and to whom they are addressed. In this way, they can choose appropriate style and content.

Last, another very important aspect in teaching writing is the student's ability to write accurately. For this reason, the importance of self-correction is stressed from the beginning and students are urged to proofread and edit their work in order to produce a coherent piece of writing. Writing is a process; it is a developmental, linear, recursive and lonely process. Students are urged to realize that they have to write, check, edit and guess what their audience anticipates from them.

2.3 Grammar & Vocabulary Development in the course book

2.3.1. The Vocabulary tasks of the course book– Presentation and justification

Since both students and subject specialists ranked it high in the NA, vocabulary should be taught thoroughly in this ESP situation. Teaching of vocabulary is closely associated with the students' reading skill thus, it should be taught through relative texts and tasks that promote text elaboration.

In the particular book, new vocabulary is in bold in the texts and English to English definitions and synonyms are provided in the glossary at the end of every fifteen units. The third task of each unit deals with the introduction of new vocabulary. Students are asked to match words with their definitions and in the fourth task they are asked to use the newly acquired vocabulary, to circle the correct word, fill in blanks etc. Additionally, vocabulary is thoroughly taught through Computer Assisted Language Learning (CALL), the digital application of the book where vocabulary presentation is done through visual prompts and audio and a wide variety of exercises. Last, certain tasks involving corpora, thesaurus or authoring programs which allow the students to see each word in several contexts and uses are encouraged.

What should be made clear though, is that students must learn to elaborate texts keeping in mind that they will always come across unknown words. Therefore, they must be trained to deduce meaning through guessing, parallelizing, contextualizing words and phrases and activating existing schemata instead of sticking to the unknown words. Only in this way will they become independent readers and autonomous learners.

2.3.2. The Grammar tasks of the course book– Presentation and Justification

In the particular course book, grammar / language functions smoothly arise from the text and are introduced right before the Speaking task. Learners are asked to use them into the production of speaking discourse in a guided speaking activity right afterwards. Some notions that arise from texts elaboration are clarified, revised and practiced.

ESP Certificate

After the completion of the course, students can obtain a certificate of attendance to certify that the particular student has completed a terminology course on Nutrition & Dietetics, during which they have been taught several topics in the field. Optionally, students can take an on-line test in certified exam centers to get an examination certificate which certifies that they have acquired basic vocabulary in the field. It is an international certificate globally recognized in the workplace. It reinforces professional development and helps improve knowledge of basic English terminology within the learner's respective profession. It also provides professional ability to ensure continued employability.

The two certificates are provided and supported by four bodies: a) The University of Greenwich London, UK b) Express Publishing, a global leader in ELT publishing c) Unicert, a Human Resource Certification Body which is accredited by the Greek National Organization for the Certification of Qualifications and Vocational Guidance and the Hellenic Accreditation System and d) the Research Centre of the University of Piraeus, Greece. The test lasts 60 minutes and consists of 5 parts: reading, writing, listening, along with the testing of linguistic means and language functions. There is no speaking test as it is on-line. The examination focuses on specific notions and functions, vocabulary and terminology, ways of communicating, comprehension, listening and writing related to the field of Nutrition & Dietetics. The structure of the examination is designed to meet the requirements for various fields, taught in vocational schools, technical colleges, institutes and universities.

Conclusion

An attempt has been made to present the various stages from designing a terminology course for the department of Nutrition & Dietetics of the Hellenic Mediterranean University of Crete, to the application of theory into practice (the course book) and last, to the evaluation of its graduates. All the stages have been described: Needs Analysis (designing of questionnaires & data analysis), designing of the syllabus, development of materials (course book, teacher's book, CD and Digi book) and collaboration with four bodies for the launching of a new certificate. Course evaluation has not occurred yet as the particular book has only been taught for one year. Secondly, evaluation of the examination has not taken place either as the exam will be launched this year. Hopefully the results will be presented in a future presentation along with feedback from the University of Greenwich, Unicert, University of Piraeus and Express Publishing.

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Games and Engaging Activities in the ESP/EAP Classroom

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Abstract

Both teaching and learning a foreign language requires hard work and a great deal of effort on both sides. The traditional chalk-and-talk approach to teaching and reviewing English grammar and vocabulary may be supplemented by other activities like (online) puzzles, crosswords, quizzes, games, experiments, QR codes, etc. The aim of this paper was twofold. We wanted to find out whether ESP teachers working at universities in the Republic of Croatia use such activities in their classes at all, and, if they do, how often, in which part of their classes, and which of these activities are most commonly used. For the purpose of this research, a total of 27 Croatian ESP teachers took part and filled out their surveys online. The results showed that all respondents use a wide array of games and other engaging activities that contribute to the acquisition of the content being taught and increase the effectiveness of language learning and teaching. Our research findings indicated that these engaging activities encourage creativity in ESP classes and support teachers' efforts to increase student motivation and engagement in class. Finally, the analysis of our results points to both the potential of games and other engaging game-like activities in ESP/EAP teaching and potential drawbacks.

Introduction

There are several factors teachers have to bear in mind and be careful about when selecting games or any similar (online) engaging activity, e.g., which game or activity should be used and when, how it could relate to the syllabus, textbook, topic, or context, and to what extent it is beneficial for students. These activities, when selected carefully and appropriately, contribute to the acquisition of the content being taught and increase the effectiveness of language learning and teaching. Although there are both advantages and shortcomings of using such activities in (ESP/EAP) teaching, generally speaking, they support teachers' efforts to increase student motivation and engagement in class. As there is an abundance of activities that can be used in ESP/EAP classes, it is important to stress that most of them, though sometimes (slightly) modified, can be used in ESP/EAP classes of any type and at any level.

There exists a wide array of definitions of a game (and an engaging game-like activity), and all of them share the three key words: rules, fun and outcome (for an overview of the existing definitions of game, see, e.g., Gruss, 2016: 84 and Frydrychova Klimova, 2015: 1158).

Classification of games is a rather broad and flexible area which focuses on some specific criteria referring to features and functions of a game. Toth (as cited in Gruss, 2016: 84) distinguishes between two kinds of games, i.e., competitive and cooperative games. Likewise, Hadfiled (1998, as cited in Frydrychova Klimova, 2015:1158) divides language games into linguistic and communicative games. Another dichotomy is provided by Lewis and Bedson (1999, as cited in Frydrychova Klimova, 2015:1158), who classify games into movement games and task-based games, but they also add computer games as a very popular type of games. On the other hand, Hadfiled also gives a second classification that divides games into more categories and includes both linguistic and communicative aspects (for more details, see Frydrychova Klimova, 2015:1158). According to Lewis and Bedson (1999, as cited in Gruss, 2016:87--8), games are, *inter alia*, classified on the basis of the tools and various physical materials used for playing as follows: board games, card games, drawing games, guessing games, role-play games, and movement games (for an overview of diverse classifications of games, see Gruss, 2016: 84--8). If games are focused on a particular language skill, we may divide them into listening and speaking games (i.e., receptive and productive games), which may also involve some reading and writing, respectively. A more detailed classification of games into sorting, ordering or arranging games, information gap games, guessing games, searching games, matching games, labelling games, exchanging games, board games and role playing games was provided by Jacobs (n.d., as cited in Wang, Shang and Briody, 2011).

Moustakas and Tsakiris (2018: 646) argue that a game is an activity that can achieve its goal either virtually or experientially and that such activities share the following features: they are non-typical and free, dynamic and flexible, they stimulate one's imagination, they are based on flexible rules and they contribute to the development of communication skills. Generally speaking, games have a lot of features in common that can be modified so as to meet the needs of learners and serve their purpose as effectively as possible. Most researchers agree that special emphasis should be placed on how games and engaging activities are to be tailored to specific language learning contexts and students' needs or adapted to suit the content of the curriculum, complementing at the same time regular classroom activities, enhancing the existing lesson materials, enriching paper-based activities, boosting learner autonomy, and adding an element of surprise (see, e.g., Moustakas and Tsakiris, 2018; Kolar-Šuper, Sadrić, Kolar-Begović and Abičić, 2017; Al-Azawi, Al-Faliti and Al-Blushi, 2016; Ghasemi, Hashemi and Bardine, 2011; Sigurðardóttir, 2010). In addition to games and game-like activities that have been extensively used in the language classroom for years, new engaging activities like employing experiments or quick response (QR) codes in language teaching are gaining popularity due to their ease of use, versatility and flexibility (see, e.g., Cruse and Brereton, 2018; Liermann-Zeljak, Ferčec and Božić Lenard, 2017).

Constantinescu (2012, as cited in Gozcu and Caganaga, 2016: 129) claims that when choosing language games, the following issues must be considered by language teachers:
- games should have an aim;
- games should focus on the use of language;
- the content should be appropriate, i.e., it should fit the curriculum and be correct from all points of view;

- games should be technically easy to use in the classroom;
- games should be in accordance with students' age and level of knowledge;
- games should keep all of the students interested and engaged; and
- short games should be used, otherwise students may lose their interest.

There exists a large body of literature devoted to investigating game-based learning and various engaging activities that are occasionally used in class. Research has confirmed that they are likely to improve learning motivation and concentration of students, increase their interest in subject matter, cause their attention and active participation, and eventually contribute to innovation and creativity in the classroom. As pointed out by Maley (2015: 6, 9), creativity can and should be integrated into all aspects of our classroom practice and at all levels of our students' experience. In relation to the learning context, creativity is found to stimulate, engage and motivate, but also to improve student self-esteem, confidence and self-awareness.

In contrast to the majority of methods applied in traditional teaching and learning processes, games and other engaging activities are mostly well accepted by students around the world and usually found interesting, motivating and entertaining. Furthermore, as most students of the so-called Generation Z, i.e., persons born from 1995-2010 who are often referred to as digital natives, started to use the Internet, digital technology and social media at an early age and own mobile phones, laptops, and/or tablet computers, it has become quite common to use these in educational contexts as well. In terms of (foreign or second) language teaching and learning, these phenomena have given rise first to computer-assisted language learning (CALL) and then, more specifically, to mobile-assisted language learning (MALL). On the other hand, with the rise of the Internet, various language learning alternatives to CALL have emerged, like Technology Enhanced Language Learning (TELL), Web-enhanced Language Learning (WELL), or Network-based Language Learning (NBLL). But, the idea that all of them have in common are students working on a desktop or laptop computer consciously practising or learning a language (Jarvis and Achilleos, 2003:2). Unlike CALL, which refers to the application of the computer and computer technologies in language teaching and learning, MALL employs a range of devices like mobile phones, MP3/MP4 players, PDAs, palmtop computers and other handheld devices (for an overview of the application of technology and multimedia in language teaching and learning, see, e.g., Çelik and Yavuz, 2018; Cruse and Brereton, 2018; Liermann-Zeljak, Ferčec and Božić Lenard, 2017; Czerska-Andrzejewska, 2016; Kulkuska-Hulme and Shield, 2008).

Research has shown that in the Republic of Croatia games and other engaging activities are used as a great tool for improving motivation in the classroom in many fields, such as the Croatian language (e.g., Aladrović Slovaček, Žurić, Idrizi and Perić, 2019), mathematics (e.g., Kolar-Šuper et al., 2017), biology (e.g., Sambolić, 2011), history (e.g., Kalinić, 2012), Technical English (Liermann-Zeljak, Ferčec and Božić Lenard, 2017), to name a few. Lee (1995, as cited in Gozcu and Caganaga, 2016: 127) claims that games are educationally valuable and very important in terms of motivation and challenges they offer in foreign language teaching and learning. They can be planned so as to introduce a new lesson, apply what was learnt in the last lesson, practice vocabulary or grammatical structures or encourage students to communicate in a foreign language.

Games and Engaging Activities in Language Teaching

An educational game is a game designed and used for the purposes of teaching and learning. In educational games, we combine the elements of fun and educational concepts (also referred to as edutainment or education through entertainment) to increase student motivation and engagement, promote problem-solving ability, and achieve better learning results (Al-Azawi, Al-Faliti and Al-Blushi, 2016: 132). By outlining a wide range of advantages and disadvantages of using games in the language teaching and learning process, Gozcu and Caganaga (2016: 127--9) believe that games as well as other engaging activities play an important role in language learning in spite of the fact that most teachers are not aware of the fact that they can be considered a learning strategy. According to Hornjak (2013), the importance of play in the learning process was recognised in the 1970s and it can contribute to practicing particular linguistic aspects without students even being aware of a specific goal of teaching. In order to be able to carry out such activity successfully, it is necessary for the teacher to know his/her students and take several factors into account, such as the age of his/her students, their interests, the level of their language proficiency, the number of participants in the group, the characteristics of the group as a whole, the ability to meet the technical requirements, the need for additional material that needs to be prepared in advance, the time that can be devoted to the activity in question, etc.

Games and other engaging activities are learner-centred activities that can be used at any stage of our classes, be it to warm up the class before it begins, to give students a break or to keep them engaged or interested during the lesson, or as a recap exercise at the end of class. Since it is always absolutely important for students to be familiar with the activity they are about to do, the teacher must explain the rules in detail, write instructions on the board or even simulate the activity. It is also of utmost importance that students are familiar with the grammatical structures or vocabulary used/practiced in a particular game or engaging activity, as well as that they fully understand what is expected of them and what steps must be taken. Every activity should have a clearly defined beginning and end, with goals and expected outcome set in advance. Regardless of the type of the activity planned to be carried out (as whole class work, group work, pair work or individual work), the teacher should try to enable all students to participate equally. Lam (2013: 96) argues that gamification can increase student motivation, engagement, and cognitive development, and consequently improve student attitudes towards language learning and enhance learning. An issue teachers teaching 19-year-old students and older may encounter is that some of them may believe that games are too childish for their age and hence do not want to participate in such activities. But, after explaining the purpose and/or demonstrating the game or game-like activity, these students may change their opinion or become interested in modifying or even creating games themselves. The teacher can use the standard form of the game or activity or change it by adapting it to the students (Hornjak, 2013: 412--3); however, creating new or modifying games and game-like activities already known to both the teacher and (most) students may require significant time and resources. What might also happen is that a certain game or engaging activity which works perfectly well with one group does not work well or at all with another group. When teaching large and mixed-ability or heterogeneous classes, teachers might be reluctant to make use of games and game-like activities in their classes, generally because it is extremely difficult to organise and carry out pair, group work and whole-class activities in such a classroom setting successfully since

some noise can be generated which can be found annoying and disturbing by both (some) students and the teacher.

Numerous studies have shown that most games and engaging game-like activities used in foreign language teaching and learning target young learners (cf. Supuran and Sturza, 2017: 460). On the other hand, as there are quite a lot of differences between General English and e.g. Technical English syllabi in terms of grammar and vocabulary, most of these activities must be modified to meet the needs of a specific group of students (for some advice on this topic, see: How to Teach English for Engineers, https://www.usingenglish.com/articles/how-to-teach-english-for-engineers.html). However, since such activities help learners actively recycle and revise grammar and vocabulary they have learned, improve their communicative skills and bring energy into classes, it is well worth the effort. In addition, as mentioned by Frydrychova Klimova (2015: 1159), the organisation of such activities places great demands upon teachers who must prepare the content of the game and materials needed for its completion, explain the rules of the game to students clearly and in detail and set the time.

Research Aims and Methodology

The aim of this paper is to investigate the use of games and other engaging game-like activities such as (online) puzzles, crosswords, quizzes, games, experiments, QR codes, etc. in the ESP/EAP classroom in the Republic of Croatia. Bearing that in mind, a questionnaire was created in Google Docs and an email with the questionnaire link was sent out to ESP teachers teaching at the largest universities in Croatia inviting them to complete the survey. The questionnaire was divided into two parts, i.e., demographic information and engaging activities in ESP classes, and it consisted of 22 questions ranging from yes/no (2 questions), single-select (6) and multiple-choice (8) to rating scales (3) and open-ended questions (3). The survey took no more than 10 minutes to complete. In order to describe the basic features of ESP teachers' responses, descriptive statistics were used in the analysis. Participation in the survey was completely voluntary and anonymous.

The gender composition of participants revealed that from a sample of a total of 27 Croatian ESP teachers who took part and filled out their surveys online, 92.6% were female and 7.4% were male. In terms of their age and period of service in higher education, the participants were heterogeneous and representative of all age groups and periods of service. The majority of the participants (55.6%) were within the 41-50 age group, followed by the 51-60 age group (25.9%) and the 31-40 age group (11.1%), while the lowest number of respondents belonged to the youngest and the oldest age group (3.7% each). The data referring to the period of service in higher education was also diverse, with the largest number of respondents (33.3%) who had been teaching ESP for 11-15 years, then 22.2% for 16-20 years, 18.5% for more than 20 years, 14.8% for 6-10 years, and 11.1% for 0-5 years. With respect to their education level, 11.1%, 44.4%, 40.7% and 3.7% of the participants held a Bachelor's degree in the English Language and Literature, a Master's degree in the English Language and Literature, a PhD degree in Linguistics or other subfield in the Humanities and some degree in ESP, respectively. The majority of our participants worked as senior lecturers (55.6%), then as assistant professors and lecturers (14.8% each), assistants (7.4%) and associate professors and senior assistants (3.7% each).

The participants taught a wide range of ESP courses. As English for Engineering refers to English for Electrical/Electronic/Computer/Mechanical/Civil Engineering, Geoengineering, etc., this umbrela field accounted for 40.7% of the aforementioned courses. It is interesting to note that despite the number of 27 participants in this survey, there were 40 responses to this question, which might imply that our participants either used to work at other higher education institutions and taught various ESP courses or that at the time of the survey completion they were teaching diverse ESP courses. A slight majority of the participants (59.3%) had had some ESP training and listed conferences, summer schools, workshops, teacher development courses, vocational English courses, and TEMPUS projects in specific fields. The average number of students in ESP groups taught by the participants ranged between less than 25 (22.2%), 25-40 (55.6%) and more than 40 students (22.2%).

Research Results and Discussion

By analysing the responses drawn from a sample of 27 ESP teachers in the Republic of Croatia, we wanted to find out what their opinions and attitudes were towards the following issues:

1. Do ESP teachers use and, if yes, how often and in which part of their classes do they use games and other engaging game-like activities such as (online) puzzles, crosswords, quizzes, games, experiments, QR codes, etc. in their classes, especially when teaching and revising grammar and vocabulary?
2. Which of these activities are most commonly used in ESP classes and when?

Surprisingly, all participants have used games and other engaging activities like (online) puzzles, crosswords, quizzes, games, experiments, etc. in their ESP classes, which did not allow us to detect reasons why a certain percentage of ESP teachers do not use or are reluctant to use such activities. The following figure illustrates a variety of games and engaging activities Croatian ESP teachers have used in their ESP classes.

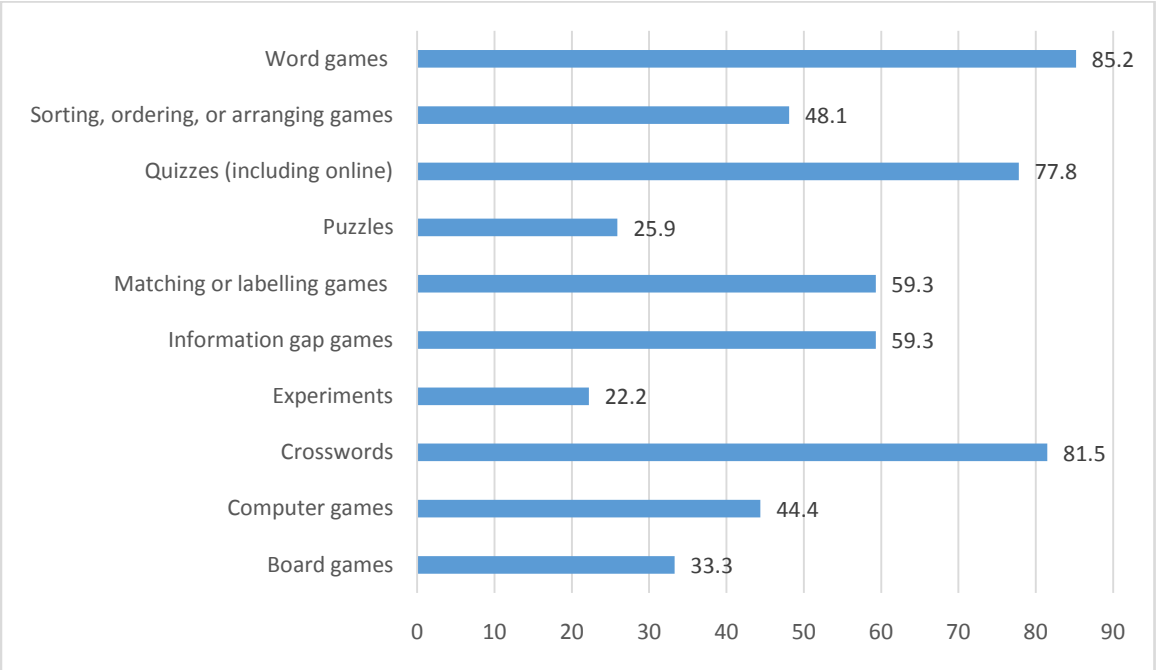

Figure 1 Distribution of games and engaging game-like activities used in ESP classes in the Republic of Croatia

When asked how often they usually use games and other engaging activities in their ESP classes, the responses ranged from very often (18.5%) and whenever I have time (66.7%) to once a semester and rarely (7.4% each). An option *Before or after every lesson* was also offered, but it was not chosen by anybody.

According to Gozcu and Caganaga (2016: 129), teachers generally prefer to use games either as warm-up activities or at the end of the lesson if there is time for such activities. The following two multiple-choice questions revealed that the participants in our study employ games and other engaging activities not only as classroom icebreakers or warm-up activities at the beginning of class (59.3%), but also during (55.6%) and at the end of class (77.8%). Likewise, the responses referring to how Croatian ESP teachers usually implement their engaging activities in the classroom confirm that they are implemented as whole class work (55.6%), as group work (77.8%), as pair work (77.8%) and as individual work (22.2%). In the question regarding skills which games and engaging activities employed by Croatian ESP teachers are focused on, the participants were offered 7 skills and were allowed to opt for as many skills as they wanted (Figure 2).

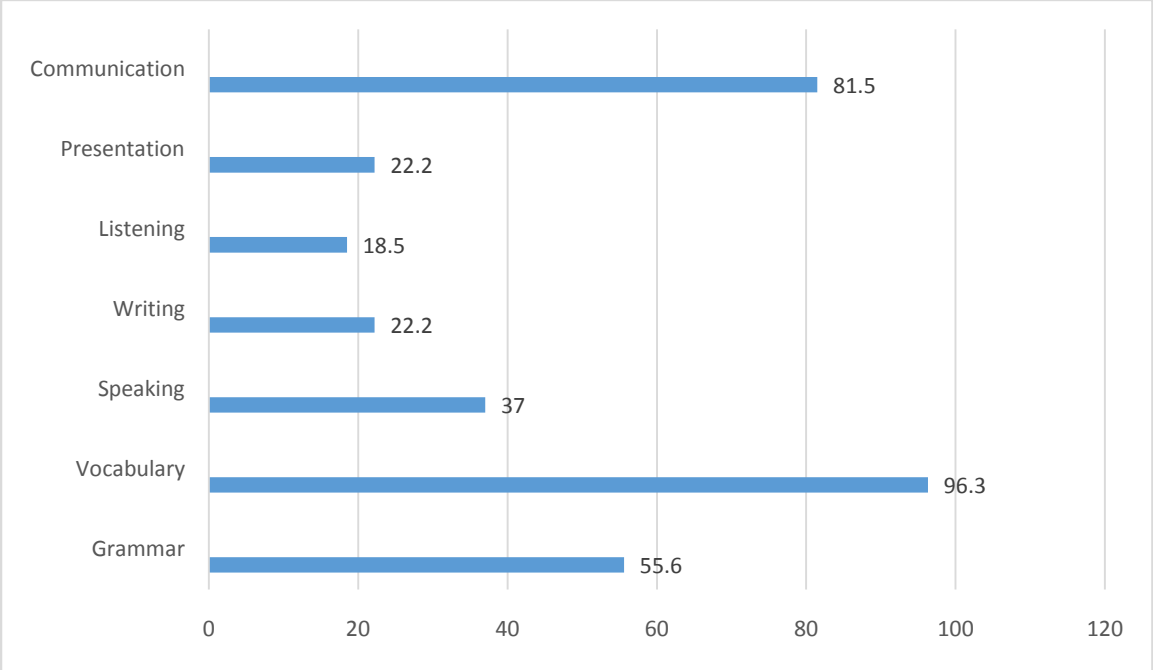

Figure 2 Skills games and engaging activities are usually focused on

In the next question, the participants were supposed to express for what purpose they use game and game-like engaging activities in their ESP classes. They were offered 7 statements and were allowed to opt for as many as they considered relevant. As shown in Table 1, the three most frequent purposes respondents use the said activities are to keep students engaged or interested (81.5%), and to warm up the class and to revise vocabulary/grammar (70.4% each). These results are in line with previous findings obtained in some earlier research (see, e.g., Savaş, 2016; Gruss, 2016, Akther, 2014; Mahmoud and Tanni 2014).

Table 1 The purpose of using engaging activities in your ESP classes

The purpose of using engaging activities in your ESP classes is …	**Percent**
to warm up the class	70.4
to introduce a new topic	51.2
to keep students engaged or interested	81.5
to teach (new) vocabulary/grammar	28.6
to revise (new) vocabulary/grammar	70.4
to practice some patterns	40.7
as a recap exercise	66.7

In their responses to the next three questions, by using a five-point Likert scale, with 1 assigned for *strongly disagree*, 2 for *disagree*, 3 for *neither agree nor disagree*, 4 for *agree* and 5 for *strongly agree*, the participants were asked to rate the impact of using games and engaging activities on the effectiveness of foreign language teaching and learning, creativity of students and teachers and student motivation and engagement in class. Interestingly enough, 29.6% of participants agree and 70.4% strongly agree with the statement that, when selected carefully and appropriately, games and engaging activities contribute to the acquisition of the content being taught and increase the effectiveness of language learning and teaching, which is also in line with previous findings obtained in some earlier research (see, e.g., Perveen and Mehmood, 2016; Saha and Singh, 2016; Riahipour and Saba, 2012; Park, 1994). Likewise, a similar result was obtained in relation to the statement that such activities may also encourage creativity of both students and teachers in ESP classes. Namely, only 1 participant (i.e., 3.7%) neither agrees nor disagrees with that statement, whereas 29.6% and 66.7% of participants agree and strongly agree with the said statement, respectively. While 7.4% of participants neither agree nor disagree, 18.5% of participants agree and 74.1% strongly agree with the statement that, although there are both advantages and drawbacks of using such activities in ESP teaching, they support teachers' efforts to increase student motivation and engagement in class. Although these three questions touch on three different issues, we may deduce that the responses obtained are rather consistent, i.e., 100%, 93.3% and 92.6% of the participants believe that games and other engaging activities encourage the effectiveness, creativity and motivation of both students and teachers in ESP classes, respectively, which is also in line with previous findings obtained in some earlier research (see, e.g., Motlhaka, 2012; Yolageldili and Arikan, 2011).

By analysing the participants' descriptive responses given at the end of the survey, we noticed that the challenges ESP teachers encounter in preparing and implementing games and engaging activities are primarily connected with students (*large and mixed-ability classes*, *different levels of students' proficiency and their willingness to communicate*, *not all students are fond of such activities*, *students' response is not always as expected or desired*), then with teachers (*time-consuming preparation*, *not enough time to use these activities more frequently*, *lack of resources*) and higher education institutions (*problems with equipment and inadequate classrooms*). Some of these challenges turn into drawbacks of using engaging activities in ESP classes that are discussed in the last question. Most participants cannot think of any drawback, but a few of them attach a condition like *as long as they meet some*

meaningful teaching/learning purpose, *if selected and prepared well and in advance* or *if they are interactive and provide feedback for students*. Other mention that *such activities are time-consuming*, *limited in skills they practice*, *it usually takes more time for the activity than foreseen*, then *not all students are engaged equally*, *the students sometimes do not get them serious enough and the atmosphere is too relaxed*, *they lack interest and motivation*, *it may become difficult to switch to a "less engaging" activity*, *groups are too large*, and finally *maybe problems with the internet access and cables*. To sum up, let us quote one of the participants who outlined both challenges and advantages and drawbacks of using games and game-like engaging activities in ESP classes: "*I spend more time using engaging activities and when teaching in large groups, that time cannot be compensated. Classes are more interesting for both students and teachers but research do not show any advantages regarding language acquisition. There is an abundance of online materials but they are usually EFL related so every ESP teacher needs to go to great lengths in trying to adapt EFL materials or design his/her own, both of which is very time-consuming*."

Limitations of the Research

The data obtained in this survey provide some insight into the use of games and other engaging activities in ESP classes at higher education institutions in the Republic of Croatia from the perspective of ESP teachers. However, since our survey relies on a sample of participants made up of only 27 Croatian ESP teachers who participated in the survey, we are not able to make generalisations based upon the aforementioned findings, which in turn cannot be used as a fully reliable source of reference due to a small sample size.

Recommendations for Further Research

Further research can be conducted to examine the use of games and other engaging game-like activities such as (online) puzzles, crosswords, quizzes, games, experiments, QR codes, etc. in the ESP/EAP classroom in a few other EU and/or non-EU countries and compare the results obtained. We would also recommend examining students' opinions about the use and effectiveness of games and other engaging activities in foreign language learning.

Concluding Remarks

The results of this research show that all participants used a wide array of games and other engaging activities that contributed to the acquisition of the content being taught and increase the effectiveness of language learning and teaching. Additionally, these engaging activities also encouraged creativity of both students and teachers in ESP classes and supported teachers' efforts to increase student motivation and engagement in class. The participants in the survey were a group of 27 ESP teachers teaching at the largest universities in Croatia, all of whom employed these activities in various ways (as individual, pair, group or whole-class work) at the beginning, during and at the end of class.

Previous research into the potential of games and other engaging game-like activities in ESP/EAP teaching and our research findings show that, although they are aware of potential drawbacks of using such activities in their ESP classes, the majority of ESP teachers in the Republic of Croatia who took part in our survey react positively to the use of such activities.

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APPENDIX

QUESTIONNAIRE

*Obligatory

Demographic information

Please select one of the offered options

Gender*
Male
Female

Age*
< 30 years
31 – 40 years
41 – 50 years
51 – 60 years
> 60 years

Period of service in higher education*
0 – 5 years
6 – 10 years
11 – 15 years
16 – 20 years
more than 20 years

Education level*
Bachelor of Arts in the English Language and Literature
Master of Arts in the English Language and Literature
Doctor of Science in Linguistics or other subfield in the Humanities
Any degree in ESP

Ranking*
Assistant
Senior Assistant
Lecturer
Senior Lecturer
Assistant Professor
Associate Professor
Full Professor

Which ESP do you teach?*
English for Science
English for Engineering (Electrical/Electronic/Computer/Mechanical/Civil Engineering, Geoengineering, etc.)
English for Architecture
English for Medical Studies
English for Dental Medicine
English for Veterinary Medicine
English for Legal Purposes
English for Business, Management and Economics
English for Aviation and Aeronautics

English for Social Sciences
English for Sports
English for Teaching
English for Agriculture
English for Tourism and Hospitality
English for Food Technology
English for Journalism and Political Science
Naval, Maritime and Military English
English for Mining, Geology and Petroleum Engineering
English for Textile Technology

What is an average number of students in your ESP groups?*
less than 25 students
25 – 40 students
more than 40 students

Have you ever had any ESP training?*
Yes
No

If you responded "Yes" to the previous question, please specify what type of training you have had.

_____

____

Engaging activities in ESP classes

Please select one or more (if applicable) of the offered options

Have you used any engaging activities like (online) puzzles, crosswords, quizzes, games, experiments, etc. in your ESP classes?*
Yes
No

If you responded "No" to the previous question, please specify the reason(s) why you do not use any of these activities.
I don't find these activities useful for my ESP classes.
I don't have time for such activities.
I can't incorporate such activities into my ESP classes.
Groups of students in my classes are too large.
My ESP students do not like such activities.
I find it difficult to prepare such activities and/or adapt them to my ESP classes.
I am not familiar with such activities and how to use them in my ESP classes.
I don't know much about advantages/drawbacks of using such activities in ESP classes.
I used them but did not find them useful.
Preparation is too time-consuming.

Which of the following games and activities have you used in your ESP classes?
Board games

Computer games
Crosswords
Experiments
Information gap games
Matching or labelling games
Puzzles
Quizzes (including the ones done by using applications like Kahoot or Socrative)
Sorting, ordering, or arranging games
Word games
Other - please specify which engaging activities you have used.

How often do you use engaging activities in your ESP classes?*
Very often
Whenever I have time
Before or after every lesson
Once a semester
Rarely

At which stage of your lessons do you usually use engaging activities?*
before the lesson begins
during the lesson
at the end of class

How do you usually implement your engaging activities in the classroom?*
as whole class work
as group work
as pair work
as individual work

What skills do your engaging activities usually focus on?*
Grammar
Vocabulary
Speaking
Writing
Listening
Presentation
Communication

What is the purpose of using engaging activities in your ESP classes?*
to warm up the class
to introduce a new topic
to keep students engaged or interested
to teach (new) vocabulary/grammar
to revise (new) vocabulary/grammar
to practice some patterns
as a recap exercise

When selected carefully and appropriately, engaging activities may contribute to the acquisition of the content being taught and increase the effectiveness of language learning and teaching.*
Strongly disagree 1 2 3 4 5 Strongly agree

Engaging activities may also encourage creativity of both students and teachers in ESP classes.*
Strongly disagree 1 2 3 4 5 Strongly agree

Although there are both advantages and drawbacks of using such activities in ESP teaching, generally speaking, they support teachers' efforts to increase student motivation and engagement in class.*
Strongly disagree 1 2 3 4 5 Strongly agree

What challenges have you encountered in preparing and implementing engaging activities?*

_____
____

What do you think the drawbacks are of using engaging activities in ESP classes?*

_____
____

The Research article: Stylistic variation across disciplines and change over time.

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Abstract

It has been speculated that the growing international diversity of the writers and the global publishing context are likely to affect the *Research Article* (RA) (Swales 2004), one of the most conservative genres. There is, however, little research that has specifically examined instances of innovation (Tardy 2016).

This paper investigates change in the RA over the past fifty years with a focus on *informality*. Building on work by Hyland & Jiang (2017) it explores RAs from Philosophy, Economics and Medicine.

Genre analysis and corpus linguistics methods join forces in this study. Three self-compiled corpora, represent RAs in three time periods: 1965, 1985 and 2015. The corpora are Part-Of-Speech tagged with TagAnt (Anthony 2014) and analysed with WordSmith Tools (Scott 2015). The analysis is based on the same set of informality markers used by Hyland & Jiang which is an adaptation of the set of features initially identified by Chang & Swales (1999).

The results corroborate Hyland & Jiang's findings. It cannot be said that the RA in general has become more or less formal/informal due to the observed variation in stylistic choices among different disciplines. Philosophy and Medicine have been at opposite poles, making attempts to shorten this gap more recently. Extreme formality/informality seems undesired. Disciplines move closer to the middle ground.

Findings such as these, based on empirical evidence, can inform EAP teaching courses and material development. Further, they can empower novice writers who are striving to gain acceptance in the academic community.

Key words: *Research article, academic writing, genre analysis, corpus, variation, style*

1. Introduction

Of the scientific research conducted on writing, a large proportion is devoted to academic writing and a disproportionate part of the latter is dedicated to the RA. This could be attributed to the high the significance of this genre for the whole academic

community. Getting hired in academic posts, promotion, tenure, funding as well as academic prestige and respect among peers is dependent on the production of this genre. The best research is of little value if the results are not disseminated in a scientific journal. Even though there are other types of scientific publication such as conference papers, books, book chapters and reports, the RA is the most common form of dissemination of new research results. Bjork, Roos and Lauri (2009) estimate that six million scholars across the world produce over 1.5 million peer reviewed articles each year in English. They use the term *Scientific Journal Paper* instead, and give the following definition:

> a paper describing scientific research results, which has undergone some form of anonymous peer-review and which is published in a regularly appearing serial, usually by a third party publisher and not by the university of the author. Papers are typically 3,000 to 10,000 words in length and are written following long-established conventions concerning style, referencing, tables of content etc. (Bjork et al. 2009: Introduction)

The skills required to successfully write RAs are formally offered in higher education around the world. The scientific field that engages with the research and teaching of these skills is called English for Academic Purposes (EAP); it is so, due to the rapid dominance of the English language in published academic writing (Bordons & Gomez 2004; Giannoni 2008; Li & Flowerdew 2009; Meneghini & Packer 2007; Swales 1997). EAP tries 'to empower learners by initiating them into the ways of making meanings that are valued in their target contexts, whether these contexts are undergraduate study, doctoral writing or academic publishing' (Hyland 2018: 385). It aims to develop research-based pedagogies to assist study, research or publication in English by identifying the specific language features, raising awareness of specific contexts and practices.

Raising awareness of the R.A as a genre becomes more difficult because of the variation in perceptions and conventions across different disciplinary communities. Krause (2014: 2 abstract) talks about 'disciplinary tribes and territories' and shows the extent of disagreement on the contents of the university curriculum. As a result, the EAP practitioner most of the times becomes the jack-of-all-trades trying to become a specialist in the various disciplinary discourses (Hyland 2018). Several researchers have explored the extent of this variation among disciplines as well as the specific linguistic features related to it. They have attempted to compare RAs from different disciplines based on specific linguistic features, rhetorical moves or both.

The use of corpora for this type of analysis has been most beneficial as it offers objective and rather straightforward knowledge. Based on corpus evidence EAP practitioners can make principled decisions about the features of the genre that are essential to teach and those that are less so. Studies based on corpora that have investigated the RA have mostly explored linguistic features (see for example: Banks 2017; Gray 2015; Hyland 2002; Li & Ge 2009; Lafuente Millán 2010; Seoane & Loureiro-Porto 2005) as the analysis of rhetorical moves requires careful manual annotation which is time consuming and realistically possible only on a handful of texts or small corpora. Recent studies, even if still rare, that have attempted moves analysis based on corpora (Kanoksilapatham 2005; Kanoksilapatham 2007) or studies

that investigate specific lexical and grammatical features associated to rhetorical moves (Cortes 2013) open the way to corpus-based moves analysis too.

One of the points of concern in academic writing has been that of style. Academic genres have often been characterised as uptight, conservative and resistant to innovation (Heylighen & Dewaele 1999; Hundt & Mair 1999; Seone & Loureiro-Porto 2005). They are also considered bland and impenetrable in the sense that readers may find it difficult to engage (Casanave 2010; Sword 2009). Bending, however, genre norms is especially difficult in this case, due to well-developed gatekeeping structures controlling what is considered acceptable within a disciplinary community (Tardy 2016). Writers striving to gain acceptance in the academic community, at least in the initiating stages have to follow conventional models rather closely. Attempts to innovate in writing for journal editorial boards or grant committees seem rather dangerous (Kubota 2003), since writing is a lot like dancing with established patterns at its base; however, it also involves opportunities for the unexpected (Hyland 2007) which are not easy to identify unless the writer is skillful and experienced.

Despite the rigidity of the genre, some researchers have expressed the belief that the traditional English language RA will be affected due to the growing international diversity of the writers and the global publishing context (Swales 2004). There is little research however, that has examined these changes (Tardy 2016). Especially in the traditionally more conventionalized hard sciences (Bazerman 1988), the incorporation of informal language into a RA can be seen as an instance of innovation. The discussion of style is therefore, also closely related to the previous discussion of disciplinary variation in general.

There have been corpus-based studies with a focus on the RA that examine individual linguistic features associated with *informality* indirectly, that is, referring to *stance* or *the writer's presence*, or *colloquialization* (e.g. Hyland 2001; Hyland & Jiang 2016; Seone & Loureiro-Porto 2005). Most of these studies only investigate individual features in isolation, making it difficult to link the findings to a particular direction of style as a whole. The focus is usually on a linguistic feature and this feature is associated with a stylistic tendency (e.g. *impersonality* or *orality*). Another problem is that each project engages with different features making it extremely difficult to compare or generalise. The fact that so many different disciplines need attention, due to the widely observed diversity, makes the attempted generalisation even riskier. On the contrary, if new studies asked the same question and followed the same methods on different content (of either the same discipline or a variety of other disciplines), we would be able to inform interested parties more confidently and consistently on where things stand right now with this type of writing. Furthermore, studies that refer to style rarely focus on the RA; broad terms such as *scientific* or *academic writing* can refer to a number of genres involved in academia, from postgraduate exam papers to academic textbooks and related learning material.

There are, however, two corpus-based studies, specifically referring to *informality* in the RA, using a set of features to measure this stylistic trait. The second replicates the first, not fully but to a great extent which gives us some more evidence on the same question, using almost the same set of features and similar tools.

Chang & Swales, (1999) examined 40 style manuals and writing guidebooks looking for informality features. They compiled a list of the most frequently mentioned features in the writing style manuals which they thought were associated with informality. Then, they investigated Philosophy, Statistics and Linguistics building a corpus with RAs for each discipline and checked the use of the 10 elements in the corpus. They also discussed most of these elements of style with 37 non-native speakers (NNS) of English, drawn from two advanced writing classes for NNS and reported on their reactions. The analysis of the corpus revealed tendencies towards informality but disciplinary variation was observed. Therefore, the researchers encouraged further research into the specific stylistic trait.

Hyland & Jiang (2017) have recently responded to the call for further research on *informality*, taking Chang & Swales' (1999) list of informal features with minor adjustments (substituting the category of sentence fragments with that of the second person pronouns) and using it to measure *informality* in their self-compiled corpus. They investigate usage in four disciplines, namely Applied Linguistics, Sociology, Electrical Engineering and Biology. Hyland & Jiang not only measure instances for three different time periods (1965, 1985 and 2015) but they also calculate change in time so that it is easy to see the overall attitude to *informality* according to discipline.

The results of the study above show that it is not easy to answer if the writing of the RA has been more informal recently and in what ways. Even though they observe a small increase of around 2% in *informality* features over the past 50 years they notice that this is largely a result of increases in hard science writing rather than in the social sciences which have become slightly more formal. The overall figures are largely influenced by the frequencies of three main features: first person pronouns, unattended reference and sentences beginning with conjunctions and conjunctive adverbs. They also warn the reader 'not to overestimate either the extent or speed of the change' (p. 48). Finally, they also encourage further research on other fields as they have only examined four disciplines.

Both studies mentioned above have enhanced genre awareness and opened the path to more objective evidence on style, particularly on *informality* which is usually considered to be a subjective and fuzzy term. This lack of consensus is evident in the attempts to define the basic concept (*informality*) which is commonly seen as the opposite of *formality*, a term which is also linked to some ambiguity (Coffin et al. 2003; Heylighen and Dewaele, 1999; Hyland & Jiang 2017). Subjectivity can also be seen in the linguistic features with which *informality* is associated and similar broad terms or stylistic qualities linked to it. For example, *informality* has been associated with *increased use of active voice verbs and personal pronouns, directness, involvement, stance, engagement, low information density and colloquialism* (Biber, 1995; Heylighen and Dewaele, 1999; Hundt & Mair, 1999; Hyland, 2005; Melissourgou & Frantzi, 2018, 2019). The advice given in issues related to style guides is often based on personal preference and therefore, can be conflicting (Swales & Feak, 2012). Furthermore, students sometimes find discrepancies between the prescriptive advice in some of the writing guide books and actual usage observed in their reading material.

This is clearly an area with a lot of interest and practical benefit. Our aim has been to add insight starting with an in-depth look at three disciplines: Philosophy, Economics

and Medicine. The choice of the disciplines is based on an attempt to investigate different academic communities, texts coming from both the *soft* and the *hard* disciplines, as well as from those that fall somewhere in between these two ends of the spectrum.

2. Methodology

In order to study the specific genre across disciplines and within various time periods we compiled a corpus of research articles based on the same criteria set by Hyland & Jiang. Five high ranking journals (listed in Appendix A) from each discipline (Philosophy, Economics and Medicine) were used to extract texts (limited to journals for which electronic versions of articles were available). Six articles per journal were included in the corpus for each of the time periods (1965, 1985 and 2015), adding up to 90 articles per discipline. The main concern has been the overall changes over the 50 years. The different time spans were chosen by Hyland & Jiang in an attempt to see whether changes were more pronounced at specific periods. In total the corpus consists of 270 texts of 1,941,644 words, fairly balanced across disciplines as shown in Table 1. The corpus is part-of-speech (POS) tagged with TagAnt v. 1.1.2 (Anthony, 2014) and analysed with WordSmith Tools v. 6 (Scott, 2015).

Table 1. Corpus size and composition

Discipline	1965	1985	2015	Overall
Philosophy	241,657	238,293	189,364	669,314
Economics	188,071	143,093	296, 655	627,819
Medicine	191,636	164,855	288,020	644,511
Totals	621,364	546,241	774,039	1,941,644

The analysis is based on the same set of informality features used by Hyland & Jiang (2017), which is an adaptation of the list of features identified by Chang & Swales (1999) and can be seen in Table 3. The study reports on overall results, change per discipline as well as per time period. It also discusses particular linguistic features in the set that have substantially affected the overall scores.

Some of the features were retrieved easily through concordancing individual items using the raw corpus (e.g. I/we). For other features (e.g. split infinitives) the tagged corpus was questioned based on regular expression queries. For certain features, the procedure was more time consuming than others. *This, these, that, those, it,* for example, could or could not be instances of *unattended anaphoric pronouns* and each instance needed to be read in context. In those cases, the concordance tables were first scrutinized independently by two of the authors and shared with an inter-rater agreement of 93%.

3. Results and Discussion

Overall, for the disciplines studied here, there was a decrease in informality markers of 14.5% while in Hyland & Jiang's study there is a small increase of around 2%. We see this distance as justified by the inclusion of different disciplines and the use of a similar but still not the same corpus.

The results show a significant increase of 38.6% in informality features by writers in Medicine, a trend which rises steadily over the years (Table 2). Philosophy and Economics on the other hand, drop by 22.5% and 17.2% respectively. It is worth noting though, that Philosophy still has substantial numbers in features of informality in 2015 compared to the other two disciplines. Of course the statement could be expressed the other way round: Medicine seems to have the most formal writing style over the years, especially compared to Philosophy. In fact, Medicine and Philosophy seem to be extremely different concerning writing style. The part that finds Philosophy to be at the most informal end of the spectrum has also been expressed by other researchers (Chang & Swales, 1999; Gray, 2015 - concerning Dimension 1: Academic Involvement & Elaboration vs. Information Density). We now see Medicine to be at the other end.

Table 2. Distribution of features of informality over time (per 10,000 words).

Discipline	**1965**	**1985**	**2015**	**% change**
Philosophy	291.6	283.9	226.1	-22.5%
Economics	127.1	108.1	105.2	-17.2%
Medicine	49.7	58.3	68.9	38.6%
Averages	156.1	150.1	133.4	-14.5%

The previous statement holds true even if one adds the disciplines investigated in Hyland & Jiang's study (2017) (keeping in mind of course that those were explored using another corpus). In their study Applied Linguistics had a total of 191.7 for 2015 and a drop of 10.30% in informality features in the same time span. For Sociology the total was 198.8 and the drop was 3%. Electrical engineering had a total of 155.2 and Biology 140.2 in informality features. They were found to have increased informality markers by 9% and 24.8% respectively. Within this larger group of disciplines, Philosophy remains the most informal and Medicine the less informal by far.

The pattern that emerged in the previous study, is corroborated. *Soft sciences* are cutting down on informality features while those often characterised as *hard* make more use of the same informality features than in the past. This convergence has also been mentioned by Gillaerts & de Velde (2010) studying RA abstracts in Applied Linguistics. They observed that *interactional metadiscourse markers* and especially *boosters* and *attitude markers* had dropped in three consecutive decades and they saw that as a converging move of Applied Linguistics towards the *hard sciences* which according to Hyland (2005) use significantly less interactional metadiscourse.

Economics is difficult to place. Even though its values for 2015 are closer to Medicine, that is, on the more formal end of the spectrum, it retains this formal style reducing informality features considerably (Table 2). The phenomenon can be interpreted with reference to the mixed and diverse methodology within the same discipline. As has previously been observed, some Research Articles in Economics are filled with numbers and mathematical formulas while others support claims through verbal argumentation. The style arising from such dissimilar methodologies within the discipline makes Economics hard to pin down and place within the 'soft' – 'hard' continuum (Hyland, 2005). Subsequently, the results for Economics in any

study, may have been largely influenced by the choice of papers/type-of-journal to be included in the corpus, something that calls for further analysis in the future.

Looking at specific features now in Table 3, it is evident that the first three features in the list are the ones with substantial instances of use in all disciplines, whereas the rest of the features are a lot more infrequent.
The same prevalence of the three first features is observed in Hyland and Jiang' study. Even though the numbers are really small in the rest of the features on the list, it is worth noting that there are no instances of *second person pronoun, contractions, exclamation* or *direct questions* in Medicine. No use throughout the years implies rather sharp guidelines within the discipline and conventions that have been resistant to time. Writers consistently adhere to these conventions. It is only the first three features that tell the story of change in Medicine.

Table 3. Changes in use of informality features by discipline (per 10,000 words).

Feature	Philosophy			Economics			Medicine		
	1965	1985	2015	1965	1985	2015	1965	1985	2015
First person	104.4	91.9	79.2	23.9	32	23.6	2.82	12.1	18.9
Unattended reference	128.8	130.9	106.4	74	50.8	54.2	37.1	30	24.4
Initial conjunctions	37.1	42	29.8	24.8	21.4	19	9	14.4	23.5
Second person	8	6	3.5	0	0.8	3.9	0	0	0
Listing expressions	4.7	2.9	2.2	1.8	0.2	0.9	0.1	0.1	0.2
Contractions	3.8	5.8	0.1	0.5	0.6	0	0	0	0
Preposition ending	1.6	2.4	2.7	1.3	1.6	1	0.3	0.8	0.4
Exclamation	0.5	0.7	0.5	0.1	0.3	0.2	0	0.1	0
Split infinitives	0.2	0.3	1.1	0.4	0.3	2.2	0.4	0.8	1.5
Direct questions	2.5	1	0.6	0.3	0.1	0.2	0	0	0

First person pronoun, perhaps the most typical feature of informality in RAs, has had a massive rise of 570% within Medicine (from 2.82 per 10.000 words in 1965 to 18.89 in 2015). This feature has been linked to *personal stance*, *involvement* and *lack of objectivity* (Biber 1988; Biber 1995). Writers in academia have been traditionally advised against the use of the *first person pronoun* in style guides (Chang and Swales 1999). With time, however, it has been made clear that *first person personal pronouns* are powerful means for projecting *authorial identity* and *personal stance* and that writers take these findings into consideration (Hyland 2012).

Hyland and Jiang (2017) report a 213% rise in first person pronouns in Biology, which is also a huge increase. Li and Ge (2009) analysed Medical research articles in two periods (1985- 1989 & 2000-2004) and found an increase of *we* in the articles of the second period. They also relate this to a willingness on behalf of the writers 'to emphasize their role in the research or to highlight their unique contribution'. The authors also see an effort here to 'shorten the distance' and 'stress solidarity with readers' (p. 102). What they also read into this tendency is the need for an increased sense of reliability as more than one person has endorsed the results and their interpretation. Another reason for the rise of *we* in RAs in Medicine is connected to the continuous increase in co-authored papers in medical journals (Weeks, Wallace & Surott-Kimberly 2004). Finally, the rise of the *first person pronoun* has been linked to the increased use of active rather than passive voice in recent years (Banks 2017; Li and Ge 2009; Seone 2013).

As the emphasis in this paper is on change, we highlight the above trend in Medicine;

this should not, however, be taken to mean that Medicine is close to Philosophy in the use of *first personal pronouns*. In agreement with previous studies (Hyland 2017; Gray 2015), our findings also demonstrate that authors from Arts/Humanities still make much more frequent use of these pronouns than authors from hard sciences; for 2015 the use of first person personal pronouns by authors in Philosophy has been four times more frequent than in Medicine.

Unattended reference, the choice not to include a noun after the anaphoric pronoun (this, that, these, those, it) has often been associated with informality and style guides have often advised writers against its use (American Psychological Association 2000; Gray and Cortes 2011; Hinkel 2004; Swales and Feak 2012). These pronouns may point backwards to individual words or larger sections of texts in which case clarity may be compromised. 'Out of control, the unattended *this* points everywhere and nowhere' (Geisler et al. 1985: 153). Therefore, the use of full noun phrases is seen as a better alternative in order to avoid ambiguity. On the other hand, unnecessary nouns could slow down the flow of information (Finn 1995). For Geisler et al. the decision to use one or the other involves a trade-off between two ideals: avoiding redundancy and avoiding ambiguity. Extract 1 illustrates a demonstrative determiner followed by an appropriate noun while extracts 2 and 3 show the writer's choice not to spell out the referent:

(1) **This free association between external stimulus and internal dreamscapes** is also explicitly emphasized in Alice at the end of the story when Alice's sister begins to daydream about Wonderland.
[Philosophy, 2015]

(2) Thus, with an utterance like (1) a speaker conveys the information that an object (the subject matter) bears two names. **This** seems to be what a competent speaker grasps when hearing an utterance like (1). And **this** is neither a priori knowledge, like (2), nor metalinguistic knowledge like (3), but contingent knowledge about the world.
[Philosophy, 2015]

(3) We will be particularly interested in interactions with the other conditioning variables (an indicator for the treatment, an indicator of the downstream user's reaction and a measure of impatience respectively) that produce negative coefficients, as **this** suggests rotating behaviour.
[Economics, 2015]

Corpus-based studies, have shown that writers do use *unattended reference* in RAs, especially in sentence-initial (or subject) position (Gray and Cortes 2011; Swales 2005). This study has shown that at least in the three disciplines investigated here, writers have, in fact, made substantial use of *unattended reference* in their writing at least compared to other features. However, when seen over time the use of *unattended reference* has dropped across all disciplines, by 34% in Medicine (the largest fall), 27% in Economics and 17% in Philosophy. Both findings – substantial use of unattended reference, at least compared to other features, and drop of use with time in all disciplines - are consistent with Hyland and Jiang's study. Even though previous studies have focused on sentence-initial positions, we looked into all possible positions in the sentence. Sentence-initial position was indeed more frequent and as it turned out far easier to retrieve and identify. If one needs to have a picture of

unattended reference however, it is in our view, a bit risky to draw conclusions only from instances of *this* and solely from its use in initial position.

Writers are also sometimes advised to avoid sentence *initial conjunctions and conjunctive adverbs* as their use is more appropriate to spoken and more spontaneous interactions (Chafe 1986). Extracts 4 & 5 illustrate this lively rhythm giving the impression of unplanned production. Medicine and Economics, however, prefer conjunctions often considered more formal, such as *however* or *thus* (extract 6).

(4) But that seems equally flawed. [Philosophy 2015]

(5) And as our will drives our productions, a much greater will must lie behind the natural world. [Economics, 2015]

(6) However, the actions of glucagon have been less tractable, and no glucagon receptor antagonists have yet reached the clinic.
[Medicine, 2015]

Overall, the use of *initial conjunctions and conjunctive adverbs* shows an average of 24 items per 10,000 words in our corpus, which is lower than the average reported in Hyland and Jiang's study (40.4 items per 10,000 words). As shown in table 4, Philosophy writers have used the most conjunctions/conjunctive adverbs, almost 30 per ten thousand words in 2015 articles. Medicine is in the middle, with 23, while Economics writers have only used 19. More than one third of the instances in the Philosophy corpus refer to initial *but* while more than half of the instances in the Medicine corpus refer to initial *however*. The difference in the use of these two conjunctions between Philosophy and Medicine is noteworthy and if we accept that *but* is somewhat more informal than *however* then the difference measured here further reinforces the observations on the less formal choices in Philosophy (Chang & Swales 1999; Gray 2015). Diachronically, we did not see an increase in the use of these features (Table 5). Hyland and Jiang mention a rise of 50% since 1985 in the disciplines they examined. Both studies though agree on the increased use of initial *however* over the years.

Table 4. Initial conjunctions and conjunctive adverbs by discipline per 10,000 words (2015).

Initial conjunctions & conjunctive adv.	Philosophy	Economics	Medicine
initial **and**	4	2.2	0.1
initial **but**	12.8	3.4	0.2
initial **so**	3	0.9	0.1
initial **or**	0.6	0.3	0
initial **however**	1.8	6.4	12.8
initial **also**	0.2	0.5	0.7
initial **thus**	3	3.2	6.8
initial **yet**	2.1	0.6	0.2
initial **indeed**	1.6	1.2	2.3
initial **again**	0.6	0.3	0.1
Totals	**29.7**	**19**	**23.3**

Table 5. Sentence initial conjunctions and conjunctive adverbs 1965–2015 (per 10,000 words).

Initial conjunctions & conjunctive adverbs	1965	1985	2015
initial **and**	3.1	3.4	1.9
initial **but**	9.8	8.8	4.5
initial **so**	1.3	2.7	1.1
initial **or**	0.5	0.5	0.3
initial **however**	3.4	5.4	7.7
initial **also**	0.8	0.6	0.5
initial **thus**	4	4.3	4.5
initial **yet**	0.9	1.1	0.9
initial **indeed**	0.7	1	1.7
initial **again**	0.4	0.3	0.3
Totals	**24.9**	**28.1**	**23.4**

5. Conclusion

Disciplinary variation in writing especially the writing of the RA has been an area of increased interest by researchers recently. The study has examined variation across disciplines as it unfolds through time. Building on Chang and Swales (1999) and the recent work by Hyland and Jiang (2017), the aim has been to find out whether the RA has been more informal recently. It has employed directly comparable methodologies with Hyland and Jiang's study, examining however, three different disciplines in order to add insight to the existing literature on disciplinary variation.

Compared to the previous studies, the results are similar in the following way: there is, indeed, difference in the style of writing among disciplinary communities. The disciplines traditionally seen as *hard sciences* tend to use more formal features in writing than the *social* and *humanistic sciences* throughout time. In agreement with Chang and Swales (1999: 154), we also observed that the philosophers 'exhibit a more informal and interactive writing style' than the rest of the disciplines examined.

Informality, however, as a whole, has not increased. We found an average drop of 14.5% in informality markers overall. Hyland and Jiang report an increase of 2% in overall change during the same period in Applied Linguistics, Sociology, Electrical Engineering and Biology. Their change is rather small and combining it with our result one can conclude that there is no considerable movement towards informality as a whole in the writing of the RA. Looking at both studies it is evident that Medicine, Biology and Electrical Engineering increase their *informality features* while at the same time, Philosophy, Economics, Applied Linguistics and Sociology go in the opposite direction. The disciplines that used to be more formal in the past are now adopting a more relaxed style and the disciplines that have traditionally been more informal are now dropping some of the informal features in their writing. According to Hyland (2005), Economics is hard to pin down and place within the *soft – hard* continuum. Our data shows, indeed, that even though Economics is closer to Medicine than to Philosophy in informality features in 2015, it follows the same direction with Philosophy, that is, reducing informality markers.

Studies of this type reinforce the view that the complexity of language should be investigated exploring large collections of language data. The insight gained can improve the practical guidebooks trying to help novice writers in academia. It can complement the advice based on experience and intuition and sometimes challenge it.

The observed attempt to minimise difference, at least in the style of writing, is good news in our view. It means that academic writing tends to be more homogenous and that with time, there is going to be less variation in the advice offered in academic writing courses and writing style guides. This does not mean that writing courses should ignore or underestimate disciplinary variation or as Hyland (2017: 8) puts it 'the very distinctive ways that disciplines have of seeing, and talking about, the world'; it simply means that there is more hope of a consensus regarding scientific writing style. Being more critical towards some persistent assumptions within disciplines and minimising difference can only be positive, especially with the rate of increase in interdisciplinary research nowadays.

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Appendix A. Journal list

Philosophy
1. American Philosophical Quarterly
2. Analysis
3. Aristotelian Society: Supplementary Volume
4. Journal of the History of Ideas
5. The Philosophical Review

Economics
1. American Journal of Economics & Sociology
2. Bulletin of the Oxford University Institute of Economics & Statistics
3. a. Journal of Farm Economics (only for 1965)
   b. American Journal of Agricultural Economics (only for 1985 & 2015)
4. Journal of Law & Economics
5. Quarterly Journal of Economics

Medicine
1. CA - A Cancer Journal for Clinicians
2. Experimental Parasitology
3. Journal of Experimental Medicine
4. Physiological Reviews
5. The New England Journal of Medicine