

UNIVERSIDAD DE COSTA RICA
SISTEMA DE ESTUDIOS DE POSGRADO

SHAPING WORDS: ENGLISH FOR STATISTICIANS

Trabajo final de investigación aplicada sometido a la consideración de la Comisión del Programa de Estudios de Posgrado en Enseñanza del Inglés como Lengua Extranjera para optar al grado y título de Maestría Profesional en la Enseñanza del Inglés como Lengua Extranjera

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Dedication

Teresita

To my dear Luciana

Sandra

I dedicate this project to God as He gave me the strength and determination to continue despite the difficulties. I also dedicate it to my parents, family, and husband who have always been there for me. Finally, I want to thank my friends for their support in this process.

Acknowledgements

First, we thank God for the strength He gave us to accomplish this project. Second, we want to thank each other because our mutual support, patience, and commitment were vital to achieve this goal. We also want to thank the students who participated in the course because without their support and commitment this project would not have been possible. Also, we want to thank our families for all their support and patience. Finally, we would like to thank our professors for all the guidance they provided us throughout this process to become better professionals.

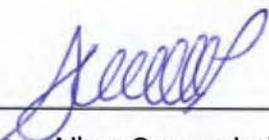
“Este trabajo final de investigación aplicada fue aceptado por la Comisión del Programa de Estudios de Posgrado en Enseñanza del Inglés como Lengua Extranjera de la Universidad de Costa Rica, como requisito parcial para optar al grado y título de Maestría Profesional en Enseñanza del Inglés como Lengua Extranjera.”



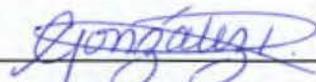
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Resumen

El presente estudio pretende determinar el grado en el cual las actividades diseñadas y su implementación en el curso *Shaping Words: Inglés para Estadísticos* cumple con los principios fundamentales del enfoque de aprendizaje basado en tareas (TBLT por sus siglas en inglés) de acuerdo con la percepción de los estudiantes y los supervisores del curso y según los resultados de las evaluaciones realizadas durante el curso. Este fue un curso de Inglés con Fines Específicos (ESP por sus siglas en inglés) dirigido a un grupo de tres estudiantes de pregrado y tres profesores de estadística de la escuela de Estadística de la Universidad de Costa Rica basado en sus necesidades, deseos y carencias con respecto al uso del idioma inglés en su ámbito profesional. Este estudio utiliza el método de investigación mixto al recopilar y analizar datos de carácter cualitativo y cuantitativo. Para determinar y solventar las necesidades de los estudiantes se utilizaron varios instrumentos para la recolección de datos entre los cuales se incluyen: una entrevista semi-estructurada, un cuestionario, y una prueba de diagnóstico de conocimiento del idioma. Durante la implementación del curso también se usaron dos escalas Likert para obtener la percepción de los estudiantes y los supervisores con respecto a las nueve tareas evaluadas. Además, se usaron dos pruebas orales, una prueba corta de comprensión auditiva y otra de comprensión de lectura, una prueba de comprensión de lectura, y la simulación de una conferencia con el fin de medir el logro de las tareas por parte de los estudiantes y de responder nuestra pregunta de investigación. En general, los resultados obtenidos muestran que las tareas implementadas cumplen, en gran medida, con la mayoría de los principios establecidos por el enfoque de aprendizaje por tareas. De igual manera, las evaluaciones sumativas demuestran que los estudiantes lograron realizar las tareas de forma satisfactoria. Finalmente, el diseño e implementación de tareas fueron elementos esenciales para ayudar a los estudiantes a solventar sus necesidades y a alcanzar los objetivos del curso.

Palabras clave: diseño de tareas, implementación de tareas, aprendizaje por tareas.

Abstract

The present study aims at investigating the extent to which selected main tasks and their implementation in the course *Shaping Words: English for Statistics* complied with Task-Based Language Teaching (TBLT) principles according to the students and the supervisors perceptions, and the summative evaluations administered throughout the course. This was an English for Specific Purposes (ESP) course designed for a group of three undergraduate students and three professors of the Statistics school at the University of Costa Rica, based on the students' needs, lacks, and wants in their academic environment. The study follows the mixed methods approach as both qualitative and quantitative data were collected and analyzed. In order to determine and attain the students' needs, several instruments were used to collect data, which included a semi-structured interview, a questionnaire, and a language diagnostic test. During the course implementation, two Likert scales were used to obtain the students' and the supervisors' perceptions regarding the nine main tasks that were evaluated. Also, two speaking test, a listening comprehension quiz, a reading quiz, a reading test, and a conference simulation were used to collect quantitative data, to determine task achievement, and to answer our main research question. In general, the results obtained show that the main tasks implemented complied with most of the TBLT principles at a great extent. In the same way, the summative evaluations demonstrate students' task achievement at satisfactory level. Finally, task design and implementation were essential elements to help students fulfill their needs and to meet the course goals.

Key words: main task design, main task implementation, TBLT principles.

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List of Abbreviations

CEFR: Common European Framework of Reference

ESP: English for Specific Purposes

N.A.: Needs Analysis

Q&A: Question-and-answer

ST: Student-teacher

L: Listening

R: Reading

S: Speaking

W: Writing

Ss: Students

TBLT: Task-Based Language Teaching

T: Teacher

St: Student

UCR: University of Costa Rica

UL: Useful Language

PPT: PowerPoint

English has become an international language and an essential instrument for Costa Rican professionals of all areas to have access to new technologies, information, and better job positions. For this reason, English for Specific Purposes (ESP) has become a very important branch of English language teaching due to the globalization of communication, technology, and industry, trend that will continue to grow. According to Dudley-Evans and St. John (1998), ESP can be defined by its absolute characteristics and "it is designed to meet specific learners' needs, makes use of the underlying methodology and activities of the discipline it serves, and is centered on the language... skills, discourse, and genres appropriate to these activities" (p. 5). With this in mind, the Master's program in teaching English as a foreign language at the University of Costa Rica (UCR) requires student-teachers to design an ESP course named *Shaping Words* based on a group of students' needs, lacks and wants following the Task Based Approach. In this case, the target population is composed of a group of professors and undergraduate students from UCR's school of Statistics.

This Portfolio contains three sections: Needs Analysis, Syllabus Design, and Course Evaluation Report. The needs analysis collected data concerning the population, the tasks the learners need to carry out in English, their deficiencies regarding the use of English, and the most relevant contents and skills in order to design the syllabus of the course. Finally, the Course Evaluation presents the results about the compliance of Task Based Language Teaching principles in main task design and implementation to achieve the course objectives.

Chapter I: Needs Analysis

A. Procedures

The initial stage of the needs analysis process involved the implementation of several instruments in order to obtain qualitative and quantitative data. The mixed-methods approach was used to achieve an understanding of the students' target situation (Dörnyei, 2011). The research team carried out semi-structured interviews for the stakeholder and experts in the field to gather information about the population. Then, a questionnaire and diagnostic test were administered to obtain objective numerical data.

B. Instruments

a. Semi-structured interviews

The first step to gather information was to meet the stakeholders by reaching the contact person, a professor at the School of Statistics at UCR. As recommended by Hutchinson and Waters (1987), the use of a semi-structured interview with open-ended questions helped to establish specific information about statisticians' use of English in their field as well as in future jobs. The contact person agreed on a face-to-face interview which took approximately sixty minutes and included questions about academic and work-related tasks that involve the use of English, job demand, authentic materials that statisticians handle, and the type of speakers they might interact with in English, among others (see Appendix A). After that, a specialist in the field was contacted. This person is a graduate student of the bachelor's program, current student of the master's in statistics, and presenter at national and international conferences and symposiums. She was

interviewed in order to collect more information regarding the type of tasks statisticians carry out at work, the kind of texts they need to work with, and possible job positions (see Appendix A). Further communication with the contact person and specialist was possible through email.

b. Questionnaire

The following step to determine the target population's needs was the administration of an online questionnaire. Questionnaires are useful data-collection instruments to obtain quantitative and qualitative information based on some open-ended questions (Dörnyei, 2011). By using a questionnaire that contained factual and attitudinal questions, the research team was able to gather data about the participants' personal information, interests, immediate and future needs, learning preferences, and perceived level of proficiency in the four macro skills, among other aspects (see Appendix B). An email was sent to the participants to introduce the student-teachers and explain the purpose of the English course that was going to be designed. After that, another email was sent to explain the goal of the questionnaire and to provide a link of the online-based questionnaire, which was sent to 17 people; however, only 15 participants submitted their answers.

The questionnaire, which took approximately fifteen minutes to complete, was elaborated following the steps and suggestions recommended by Dörnyei (2011) in terms of main parts (title, general introduction, questionnaire items, and final thank you), length (a four-page limit), layout, and item sequence (pp. 110-111) in order to obtain a reliable and valid instrument. Elena Andraus, a professor from

the School of Statistics, revised the questionnaire and provided feedback before its administration.

c. Follow-up interviews

After administering the online questionnaire, the interviews were carried out. Thus, students were interviewed to obtain detailed information and to confirm data about their perceived language proficiency level as well as to elicit concrete examples of the use of English in their major and at work, among other aspects (see Appendix A). The follow-up interviews intended to provide a better comprehension of the participants' target needs, the skills they considered more challenging, and the ones they would like to focus on during the ESP course.

C. General description of the institution

As it was mentioned before, most of the participants were either statistics professors or students at the University of Costa Rica. This institution, which was founded in 1940, is one of the most important public universities of this country. Since then, it has contributed to the education of thousands of professionals from all over the country in a variety of fields. The School of Statistics was created in 1943, and it was originally part of the School of Economic Sciences. Later, in 1971 the department of statistics became an independent school, originating the Bachelor's program degree in Statistics. In addition, the Master's Program in Statistics has been offered since 1992, and the *Licenciatura* program was eliminated two years later in order to strengthen the master's. The school's mission seeks to educate undergraduate students with sound academic level and

professional ethics as well as to contribute to scientific research in order to ease decision-making processes to improve society's quality of life (Escalante, 2017).

D. Description of the Work Field

Statistics as defined by Oxford (2018) is "the practice or science of collecting and analyzing numerical data in large quantities, especially for the purpose of inferring proportions in a whole from those in a representative sample" (n.p.). Considering this, statistics is a very important major in which students are trained to obtain, organize, and interpret data that is fundamental to solve problems effectively in different fields.

In this way, statisticians can perform a variety of tasks such as designing systems that facilitate efficient data collection, designing data collection strategies through probability sampling techniques, providing projections that describe the behavior of a real life phenomenon, and establishing techniques and processes to have control standards in industry (Escalante, 2018) among others. In addition, statisticians can also be involved more specifically in

designing, implementing and analyzing clinical studies; monitoring, reporting and modelling disease outbreaks; collecting data to monitor levels of air pollution; collecting data to measure the toxicity of food additives; teaching statistical methods and the theory of statistics; predicting demand for products and services. (Association of Graduate Careers Advisory Services, 2016)

and many other tasks. Statisticians can design questionnaires, databases, and sample designs in a range of areas such as health, government, education,

forensics, sports, transportation, and finance, among others (E. Andraus, personal communication, March 16th, 2018 and A. Céspedes, personal communication, April 15th, 2018).

E. Interests of Primary Stakeholders

The contact person for the group of statisticians is also a primary referent regarding the interests of the participants. This person is an expert in statistics and a UCR professor who knows the general characteristics of the population and their need to improve the four macro skills, specially the reading and writing skills since they have to frequently read research articles and books to stay updated. In addition, the stakeholder expressed her concern about the low language proficiency level of the participants since most of the literature available in their field of expertise is in English. The gap between the participants' proficiency and the tasks they aim to perform is due to the lack of English courses that target their needs. According to the stakeholder, the statisticians need to learn the language to do research and to publish it in English, to participate in international conferences as presenters and audience, to interact with other colleagues who do not speak Spanish, and to take courses abroad. The primary stakeholder mentioned that they need English to explain and describe sampling and data collection techniques as well as to describe charts, graphs, mean, error, variability, and percentages, among others. The stakeholder highlighted the importance of performing these activities in English since they receive invitations to participate in conferences and courses abroad approximately eight times a year.

F. Group Profile

a. Students' educational background

Originally, the participant group consisted of 14 statisticians. Four of them are undergraduate students, three of them already hold a bachelor's degree in statistics and are getting their master's, three of them hold a licenciatura degree, and five of them hold a master's degree. In general, six of them are professors at the School of Statistics, eight of them are students, and one is a member of the school administrative staff, which means she is somehow acquainted with work field tasks. Their ages range from 24 to 58 years old.

The present situation of the students in their professional field showed common ground to take into consideration for further course planning. The participants mentioned database design and teaching as their main daily activities followed by sample and questionnaire design, psychometrics, and prediction models.

The needs analysis revealed an overall low proficiency level of English in this population. For example, Table 1 shows that five out of the fifteen participants answered that they had never studied English before. The rest of the participants said that they had studied English previously in private academies or had taken free courses at FUNDATEC or UCR. Despite this prior knowledge, only three out of ten participants had previously studied the language from two to five years; the other seven students studied English from three months to one year only. Moreover, their little knowledge of English matched their answers when they were asked about their perceived proficiency level per macro-skill. Most of the

participants perceived themselves as beginners in listening, speaking, and writing, and a similar number of students rated themselves as intermediate in reading.

Table 1

English Background of the Participants

Time of language study	NP	P
Never studied	5	33,3 %
Studied for less than 1 year	7	46,6 %
Studied for 1 to 5 years	3	20 %
Total	15	100 %

Note: NP = Number of participants; P = Percentages.

b. Description of the needs

Regarding the tasks that students most frequently do that require the use of English, the results revealed a significant discrepancy between their current knowledge and their actual needs. Around 85% percent of the students indicated that they always need English to use SPSS and STATA software. In addition, 50% of them stated that they always read manuals in English. Around 30% of the participants said that they always need English to read articles; meanwhile, less than 25% of the respondents indicated that they always need English to read books and emails, watch videos, attend conferences, explain processes, and reply to emails. Additionally, around 50% of the students pointed out that they always use the reading skill, and 25% of them said that they always need to use the listening skill. However, 20% of them considered that they always use the writing and speaking skills.

Concerning the tasks that the participants do or will do in their jobs, which require the use of English, the results are the following. Figure 1 shows that eight of the students mentioned attending conferences. Seven of them indicated writing reports, and six of them said that reading books is an activity they do or will do in English. The figure also reveals that a smaller number of students mentioned reading manuals, interacting with native speakers, and attending meetings as tasks they need or will need to do.

In regards to the students' proficiency level in each skill, the gap between their self-acknowledge low level and their current needs prevailed. Even though most of them reported reading and writing as present and future needs, eight of them perceived themselves as having basic writing skills, and five of them reported having a basic reading comprehension level. In addition, attending conferences was described as a significant need: however, around seven students considered that they have a basic listening comprehension level, and a similar number of students indicated that their speaking skill is basic as well. This is worth mentioning because listening and speaking are essential skills to attend conferences either as presenters or as members of the audience. Similarly, when students were asked to rate the level of importance of each macro skill in their present or future jobs, eight of them indicated that listening, speaking, and reading are very important, and seven of them said that writing is very important.

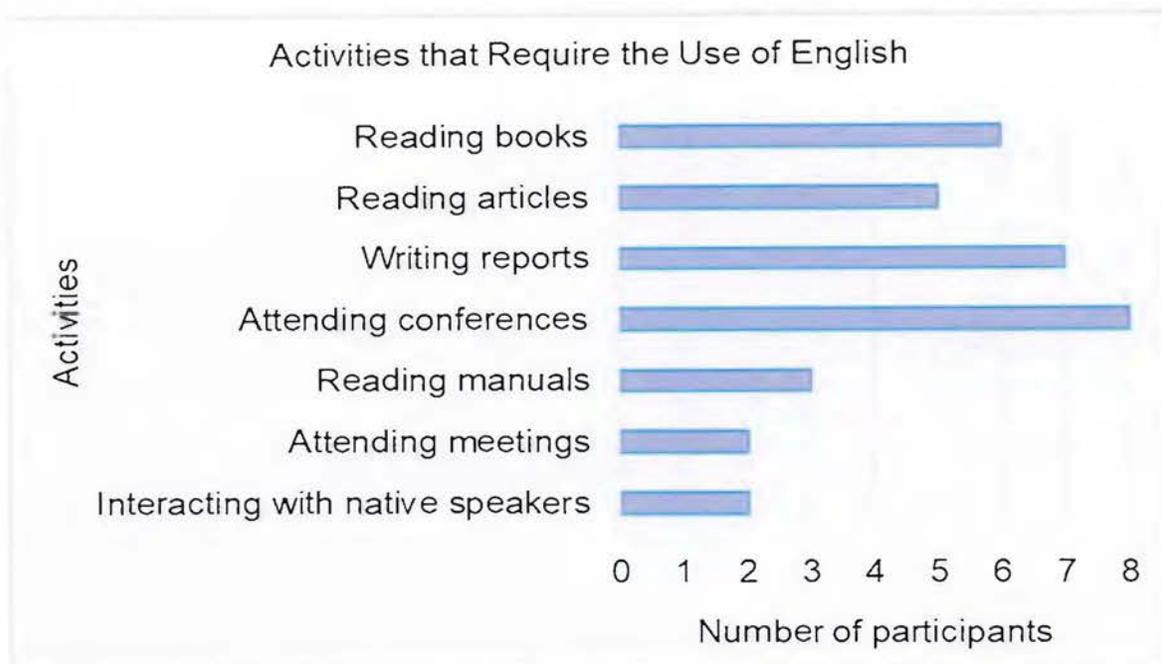


Figure 1. The four most important activities students do in their jobs that require the use of English.

In terms of the kind of documents the students have to use in their present or future jobs, reading plays an essential role. Students mentioned that they have to read books related to their field of study, for example, Applied Statistics, Descriptive Statistics, SPSS software, and others that support their teaching and academic activities. They also have to read specialized articles that are published in journals or scientific magazines (see examples of authentic texts on Appendix C in the diagnostic test and Appendix R in the lesson plans). In many cases, the professors want to use information or articles published in these documents, but they cannot do it because of the linguistic barrier (E. Andraus, personal communication, March 16th, 2018). Furthermore, they also have to read statistics

and data-analysis software manuals to know how to operate them. This population needs to read invitations to participate in international congresses, courses, or workshops.

c. Description of the wants

The participants showed interest in a variety of topics, skills, types of classroom interaction and teaching-learning preferences.

c.1. Skills

In terms of skills, the learners wanted to improve their proficiency level in two main skills. Based on the questionnaire results, 86, 7% of the population selected speaking as the skill they were most interested in since they want to be able to communicate with English speakers, and participate in conferences presenting results. For instance, 80% considered that listening is relevant to understand talks and attend conferences in the target language. In addition, 73, 3% of the participants rated reading and writing equally as they want to learn reading strategies, write abstracts and reports, and interpret texts accurately. Furthermore, the participants wanted to address technical vocabulary related to statistics and its application. They also wanted to learn verb tenses and connectors in order to express their ideas more appropriately in oral and written form.

c.2. Learning preferences

Regarding classroom interaction, participants showed interest in two main kinds of interaction: pair and individual work. A percentage of 66, 7% of the population indicated that they prefer working in pairs while 60% selected working individually as their favorite classwork activity. Moreover, 46, 7% of the population chose group work to interact with their partners. Whole class discussion was also selected by 33, 3% of the respondents.

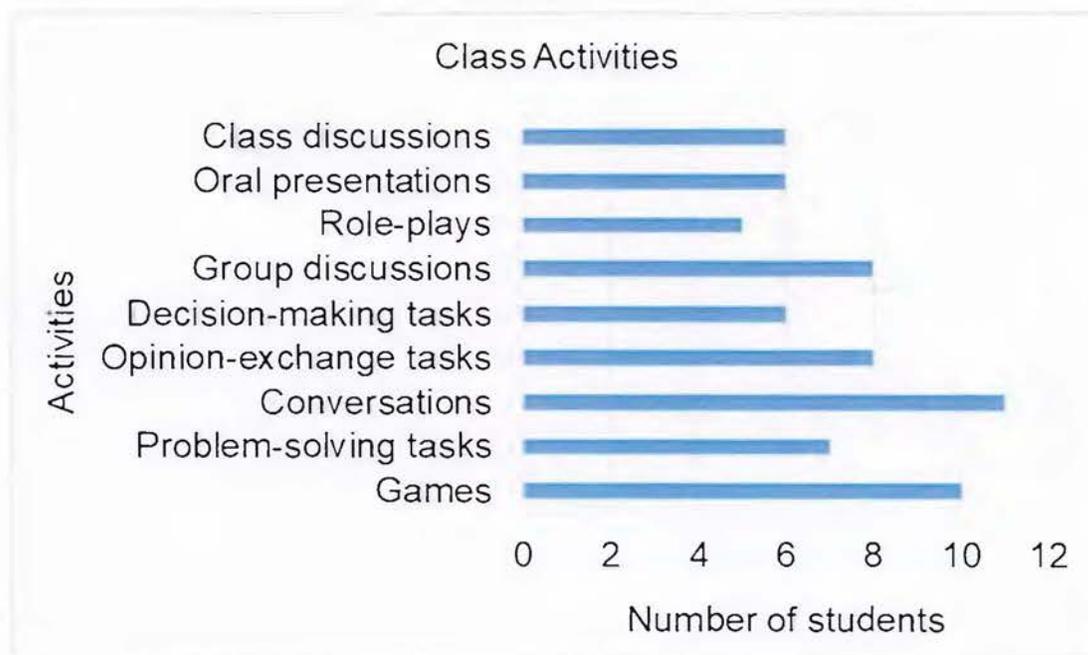


Figure 2. Types of class activities chosen by participants.

In terms of teaching-learning preferences, Figure 2 shows that the majority of the participants were interested in having conversations and games as part of the class activities during the ESP course. Then, an equal number of students would like to have group discussions and opinion-exchange tasks. Moreover,

respondents also selected problem solving, class discussions, oral presentations, decision-making tasks and role-plays as their preferences for class activities and tasks.

c.3. Topics

The topics that the participants were interested in addressing during the course included a variety of possibilities since this item was an open-ended question in the questionnaire. This population works in a wide range of fields; therefore, they were asked to mention contents and topics they consider appropriate to be developed in the ESP course. Respondents mentioned software manuals, technical language related to statistics, descriptive statistics, data mining, data analysis and sampling as their priorities. Some participants also mentioned probability, regression models, and big data. In addition, one of the participants, who is a member of the administrative staff, was interested in topics related to giving basic information to native speakers. Regarding the type of functions that this population wanted to learn in the ESP course, the majority of the students mentioned sharing opinions with colleagues, asking questions in conferences, establishing conversations with English speakers, and presenting results in oral and written form as they consider them essential in the statistics' field.

d. Description of the lacks

According to Hutchinson and Waters (2000), to determine the lacks of the students, one needs to analyze their target proficiency, assess how they perform in the target task, and compare those elements with the current proficiency level.

The result of the differences between the target and current situation is the learners' lacks. The research team consulted an expert in statistics who stated that statisticians need to learn English in order to participate in important research projects in countries where English is used as the lingua franca or to keep constantly updated with the most recent information. Moreover, the expert also claimed that statisticians perform tasks that involve the four macro skills due to the versatile nature of statistics in regard to data collection (A. Céspedes, personal communication, April 15th, 2018).

The participants aim to perform different tasks involving the four macro-skills at a high proficiency level. As aforementioned, they highlighted their need to read and write articles, participate in conferences as speakers or members of the audience, interact with native and non-native speakers among other similar tasks. However, their limited English background and their perceived low level of the language hints their lack of micro-skills to perform efficiently at the target proficiency level.

G. Diagnostic Test

For a language test to have a positive impact on learners, it has to meet the principle of validity and reliability. Validity "refers to the accuracy of the inferences and uses that are made on the basis of the test's scores" as defined by the International Language Testing Association (ILTA, n.d.). In this way, the diagnostic test complied with consequential validity, as test scores were "relevant and useful to make decisions" and [draw inferences] about knowledge and skills" (Fulcher, 2010, p. 20) in order to determine the students' proficiency level and part of the

course contents. In addition, the fact that the test structure yielded useful information related to the skills and abilities of the students means that the test meets the requirement for validity as redefined by Fulcher (2010, p. 20).

Reliability refers to “fluctuations in the student, in scoring, in test administration, and in the test itself” (Brown, 2004, p. 21). Based on this, the diagnostic test sought to adhere to the reliability principles since it was administered in similar conditions, the test length was moderate, and it involved the four-macro skills in order to prevent situations that could alter the test results.

a. Macro and micro skills

According to Brown (2004), diagnostic tests need to be carefully designed so that they can provide information about the students' needs, which will be addressed later in the course. Thus, to determine the learners' proficiency level, it was necessary to design a diagnostic test that assessed the four-macro skills (listening, speaking, reading and writing). The questionnaire and follow-up interviews showed that the participants need the four-macro skills to perform real-life tasks in their work field and academic environment. Thus, the tasks used in the diagnostic test intended to mirror the type of tasks that will be developed in the ESP course, which require the integration of the four-macro skills as well. The micro skills selected were based on the strategies learners need to perform their tasks in the field of statistics. Macro and micro skills were chosen taking into account the information gathered from research and the data collection instruments (questionnaire and semi-structured interviews) applied to the stakeholder, a specialist on the field, and students.

The first section of the test dealt with speaking, which aimed to assess the micro skills needed in the field such as producing chunks of language of different lengths, using an adequate number of lexical units, and using word classes and grammatical systems (Brown & Lee, 2015). These were determined according to the tasks students need to do in their current or future jobs such as explaining results and sampling techniques as well as their most outstanding need, which is attending conferences. In addition, participants required the functions of introducing themselves, asking questions, asking for repetition, and asking for clarification.

The second and third section of the test evaluated listening and reading comprehension. The types of texts used in both sections were authentic and field-specific, meeting the principle of content-related validity as test-takers performed tasks they may encounter in real life (Brown, 2004). The texts were selected based on topics provided by students in the needs analysis. For the listening section, participants needed the strategies of listening for specific information, note-taking and activating background knowledge. This part also assessed their ability to process speech at different rates and to retain chunks of language in short-term memory (Brown & Lee, 2015) especially in the third task in which students had to take notes. In the reading section, test-takers were required to use the reading strategies of guessing meaning from context, reading for specific details and main ideas, activating their background knowledge (Coombe, Folse, & Hubble, 2007) as well as top-down and bottom-up processing (Nutall, 1996). In addition, the test evaluated the students' ability to recognize cohesive devices and

their role in signaling relationships among clauses and paragraphs (Brown & Lee, 2015) especially in the last task in which students had to sequence a text. The last section of the test was writing an email addressed to a specific audience in accordance with the needs analysis results. This task was directly related to a real-life need. Participants had to introduce themselves, request specific details, and organize information to convey their message; this task also matched the principle of content-validity proposed by Brown (2004) since students had to do a real life task.

In general, the micro-skills assessed in the four-macro skills are listed in Table 2, and they were adapted from Brown and Lee (2015) to match the tasks developed in each block of the test.

Table 2

Macro and Micro Skills Used for the Diagnostic Test

Macro Skills	Micro Skills
Speaking	<ul style="list-style-type: none"> • Produce chunks of language of different lengths. • Produce English stress patterns, words in stressed and unstressed positions. • Use grammatical word class (nouns, verbs, etc.), systems (e.g., tense, agreement, and pluralization), word order, patterns, rules, and elliptical forms. • Express a particular meaning in different grammatical forms.

-
- Use cohesive devices in spoken discourse.
 - Accomplish appropriately communicative functions according to situations and goals.

(Brown & Lee, 2015, p. 350)

Listening

- Retain chunks of language of different lengths in short-term memory.
- Discriminate among the distinctive sounds of English.
- Recognize grammatical word classes, and patterns
- Process speech at different rates of delivery.
- Recognize that a particular meaning may be expressed in different grammatical forms.
- Recognize cohesive devices in spoken discourse.

(Brown & Lee, 2015, p. 327)

Reading

- Retain chunks of language of different lengths in short-term memory.
- Recognize a core of words, and interpret word order patterns and their significance.
- Recognize that a particular meaning may be expressed in different grammatical forms.
- Recognize cohesive devices in written discourse.
- Recognize the communicative functions of written texts.
- Infer links and connections between ideas.

(Brown & Lee, 2015, p. 401)

Writing

- Produce an acceptable core of words and use appropriate word order patterns.
- Use acceptable grammatical systems, patterns and rules.
- Express a particular meaning in different grammatical forms.
- Use cohesive devices in written discourse.
- Appropriately accomplish the communicative functions of written texts according to form and purpose.

(Brown & Lee, 2015, p. 437)

b. Constructs behind the test

The Common European Framework of Reference (CEFR) was chosen as the base to assess the macro skills for several reasons. First, the CEFR offers detailed descriptors of what the learners can do depending on their proficiency level in the four macro-skills. Second, CEFR's main goal is "to provide a common basis for the elaboration of language syllabuses, examinations, and textbooks, by describing in a comprehensive way what language learners have to learn in order to use a language effectively for communication" (Kantarctoglu & Papageorgiou, 2012, pp. 82- 88). In addition, Willis and Willis (2007) stated that the Common European Framework of Reference provide a helpful starting point to guide the design of a syllabus by listing topics, situations and criteria for different levels. Finally, CEFR's approach is moving towards syllabuses based on "needs analysis, real-life tasks, and purposeful notions and functions" (p. 26), which suit the ESP goals of the course to be designed.

Each block of items was organized in the same order that the test was administered, and according to the order of importance in which the test-takers had rated the four macro-skills in the questionnaire previously administered. Therefore, each macro skill received an equal weight in the test with an equal number of points to ensure reliable results (Brown, 2004)

Each macro skill description involved the type of tasks and items selected, their objectives, number of items per section and proficiency level. The proficiency levels assessed through the diagnostic test were moderate and low as participants rated themselves in the questionnaire and follow-up interviews as *beginner or*

intermediate in the four macro-skills. Therefore, the test was designed to assess the aforementioned proficiency levels as no one considered himself or herself to be at an advanced level.

The different blocks of the test dealt with authentic tasks for statisticians, in which language was used as naturally as possible, items were contextualized, and topics and situations were meaningful for the test-takers as they represented real-world tasks (Brown, 2004). Consequently, participants would perceive the test as relevant and useful for improving their skills, thus meeting the principle of face validity and content validity by having familiar and doable tasks that represent their daily activities with the language (Brown, 2004).

c.1. Speaking

The speaking section was a productive type of item due to its nature in generating responses rather than selecting them (Brown, 2005). The rubric designed to evaluate the oral skill consisted of five constructs that accurately represent this: task, content, grammar, vocabulary, and pronunciation (Brown & Lee, 2015); thus meeting the principle of construct validity since the performance was assessed according to the constructs of "oral proficiency" (Brown, 2004, p. 25). Regarding the speaking tasks, they were designed considering the students' job-related activities and the parameters provided by the Common European Framework of Reference.

In the first speaking task, the student was required not only to introduce himself/ herself but also to provide a brief description of a given graph. This task was intended for a basic user of the language since according to the CEFR, at this

level, the speaker is able to provide basic information about himself/herself, construct simple sentences and phrases about familiar topics, and deal with limited situations about his/her job (Council of Europe, 2018). The objective of the first task was to evaluate if the participant was able to a) provide basic personal information using appropriate structures and vocabulary, and b) describe a graph using appropriate structures and vocabulary such as numbers, and months. In the second task, the student was required to ask five questions about an investigation presented in a conference. This task was also intended for a basic user because as the CEFR (2018) stated, at this level, the speaker is able to ask simple questions about the past and the present, which were the kind of questions participants were required to construct (pp. 8-9). The objectives that guided this section were a) to show command of language related to sampling methods, and b) to request information about an investigation by asking appropriate questions.

In the third task, a speaker was supposed to have finished delivering a lecture, and a member of the audience asked a question about his or her research, which the test-taker had to answer by providing a detailed explanation. This task required the use of variety of vocabulary and grammatical structures in order to describe how a sampling technique was used. According to CEFR (2018), at an intermediate level the speaker has enough vocabulary to talk about his/her interests and work, to express abstract ideas, and to provide detailed explanations about different subjects (pp. 6-7). In this section, the objective was to explain the main steps of a sampling technique used in a previous study by using sequencers, connectors, and variety of vocabulary. During the fourth task, the student had to

provide three advantages and three disadvantages of random and non-random data collection techniques. CEFR indicated that at this level (intermediate), students should be able to express advantages, disadvantages, and points of view clearly. In addition, they could participate in a formal or informal discussion and give well-structured presentations. The objectives in this section were a) to develop a clear introduction of a presentation by using relevant details and b) to evaluate the advantages and disadvantages of a type of sampling technique by using supporting points and comparative structures.

c.2. Listening

The listening part of the diagnostic test comprised four different tasks. Two tasks were intended for low proficiency level, and the other two were devised for moderate proficiency level. Two of the tasks were made of five receptive response items (multiple choice and true false), and the other two corresponded to productive response items (fill-in the blanks and short response) for a total of 20 points. Four authentic audios were used and played three times, one for context, another one to answer, and the last one to check answers.

In the first task, students had to listen to an interview between a reporter and a professor from the Oklahoma State University who was explaining the difference between *Data Science* and *Analytics*. In this activity, students had to do a multiple-choice exercise with five incomplete statements. Each statement had three options for students to choose from and complete the statement. This exercise was intended for a low-proficient student for two reasons: the speech rate of the audio was slower than the others, and the task required students to focus on

single words, which were either cognates or commonly used words in their area of specialization such as *Data Science and Analytics*, among others. The objective for this section required the participant to a) identify specific details from aural texts by choosing the correct answers and b) show global understanding of audios from recordings in English. The second task was also intended for low-proficiency students because the speed rate was slow, and students had to focus on single words to complete the task. In this activity, the students had to listen to a tutorial about types of sampling methods as part of a course. This type of task matched the kind of tasks statisticians need to perform at work or in their academic field, as they have to listen to audios to be updated. Then, they had to complete five sentences by writing characteristics related to unbiased sampling techniques. The objectives for the second task were to a) identify sequencers in audios used to list types of unbiased sample and b) identify specific details from a tutorial. In the aforementioned tasks, the students had to identify specific words because according to Lynch (2009), key word association and recognition are a common level of processing among weaker listeners (p. 36). In addition, according to the Council of Europe (2018), low proficient students are able to understand slow, clear speech and recognize word and phrases related to familiar topics (p. 8).

In the third task, students had to listen to a professor explaining how to do one sample T-Test using a specific computer software. The speed rate of this audio was considerably fast and more appropriate for an intermediate level student. This task required students to do two things: first, they had to answer two questions about the explanation, and then, they had to complete two steps missing

from a series of eight instructions they were provided. Even though the questions required no inferencing processes, answering them required a higher comprehension level than the previous tasks since they had to retain chunks of information. The objectives required learners to a) appropriately report specific details by taking notes from a T-Test explanation, and b) recognize steps of a T-Test in order to complete the missing steps. In the fourth task, students had to listen to another tutorial on how to use a given software. This task was intended for a moderate proficient level; therefore, the speed rate was significantly fast as well, and the process level was higher than in the previous task because the activity required learners to determine if the given statements were true or false. The objectives that guided this task were to a) show global understanding of main ideas from a listening text by answering questions and b) identify specific details about NCSS statistical software by choosing the correct answers. The last two tasks mentioned were based on CEFR's descriptors, which indicate that at "an intermediate proficiency level, students can follow a talk or a lecture within their own field even if the organization and the language are both complex" (p. 11).

c.3. Reading

The reading part of the diagnostic test included four tasks. The first two tasks of this section were designed for low-proficiency level while tasks three and four were intended for moderate-proficiency level. The first two tasks were made of five productive response items: fill-in and short answer, respectively. Task number three was made of five receptive items of multiple choice while the fourth task consisted of sequencing five short paragraphs for a total of 20 points.

The text for the first task was an authentic invitation to an international conference about education, research, humanities, and Statistics in the United States of America. The objective of this exercise was to assess the participant's ability to identify keywords and chunks of language from the text by showing understanding of synonyms and basic personal information. For this task, the test-takers had to fill in five blanks with the required information from the reading.

The reading text for the second task was an authentic email provided by the contact person. The reading material was an invitation from the Young Statisticians' group in International Statistical Institute (YS-ISI) to participate in a conference about 'Statistical Computing and Data Visualization' and 'Statistics' in Kuala Lumpur, Malaysia. The objective of this exercise was to determine the ability of the test-taker to identify correctly specific information in the reading. The exercise consisted of answering five comprehension questions by extracting information from the reading. The questions referred to the text, but the words were carefully chosen to avoid answers from verbatim.

The aforementioned tasks were designed for low-proficiency level since both tasks demanded low load of information that the test-takers had to process from the text, the little amount of information they had to provide in order to answer correctly, and the use of bottom-up strategies. Hence, according to the Council of Europe (2018), low proficiency level students are able to understand short and simple texts using high frequency language related to their jobs (p. 60).

The third task was an excerpt from a book called *Essential Medical Statistics*. The objective of this exercise was to assess the test-takers' ability to

accurately a) distinguish main and specific ideas from the reading, b) distinguish between literal and implied meaning, and c) summarize the global meaning of the extract. The exercise consisted of five items of multiple choice with a number of three distractors per item with one correct option. The task was designed for moderate level since the length of the reading required more information processing and a combination of bottom-up and top-down skills. In addition, at a moderate level, the learner should have broad active reading vocabulary and can comprehend texts on subjects related to his/her field satisfactorily (Council of Europe, 2018, p. 60).

The last task was a short article titled *Faulty Statistics Muddy FMRI Results*. The task consisted of five randomly organized paragraphs. The test-taker had to reorganize the paragraphs by using numbers from one to five. The objectives for this task required the participant to be able to a) show understanding of the organization of a text by numbering the paragraphs correctly, b) recognize discourse markers in the paragraphs to find connections among them, and c) demonstrate global understanding of research descriptions through overall reading comprehension. Each correct paragraph corresponded to one point, five points in total. These tasks were designed for moderate level learners since students had to recognize cohesive devices, rhetorical forms and communicative functions. In addition, a person who successfully accomplished this task, according to the Council of Europe (2018), is able to follow a sequence of events, by focusing on common logical connectors, and understanding the role of key paragraphs in overall organization of a text (p. 67).

c.4. Writing

The writing section of the test comprised one guided writing task. The test-takers had to reply to an invitation to participate in a congress via email by writing four paragraphs: a paragraph introducing himself/herself, a second paragraph requesting information about the location and cost of the conference, and the last two paragraphs describing a previous project with a brief description of the population and results to submit their application. The task was considered authentic as statisticians receive invitations to conferences and symposiums around eight times a year (E. Andraus, personal communication, March 16th, 2018).

The task intended to assess the test-takers' writing skills in terms of the use of mechanics, grammar, organization and cohesion, vocabulary, and the overall completion of the task for a total of 20 points. The first two parts of the task (introduction and questions) corresponded to a basic user level, as at this level, learners can write about personal details using simple words and basic structures (Council of Europe, 2018, p. 75). The third and fourth sections of the task (description of the population and results) matched the moderate level because it offered learners the possibility to write a brief description of a previous research project as intermediate students can write clear, detailed texts on subjects related to their field, synthesizing information and arguments (Council of Europe, 2018, p. 75). The objectives that guided the writing section required participants to a) write an email by using the appropriate conventions, b) show command of mechanics and vocabulary related to their field, and c) briefly describe information about a

previous research project by using relevant details about population and results. Therefore, the test-taker had to complete progressively the four steps to achieve the completion of the task.

c. Rubrics used for assessing speaking and writing

To assess the speaking and writing skills, the student-teachers designed analytical rubrics to ensure validity and reliability in the results gathered. According to Coombe, Folse, and Hubley (2007), analytic rubrics help teachers obtain a more detailed profile of the students' strengths and weaknesses on different components. Similarly, Genesee and Upshur (1996) point out that an analytical rubric provides teachers with diagnostic information that can be used for planning instruction later. In addition, by using analytic rubrics, the research team was able to have multiple raters in order to reduce subjectivity and achieve reliable results.

The rubric designed to evaluate the oral skill (see Appendix C) consisted of five major constructs: task, content, grammar, vocabulary, and pronunciation. The task construct sought to determine the extent to which the learners could carry out the assignment. Content evaluated the amount of information related to the participants' field of study that they could provide in the language. Grammar assessed subject-verb agreement, use of pronouns, verb tenses, and use of modal auxiliaries. Vocabulary evaluated knowledge of technical terminology, and pronunciation assessed clear articulation of consonants and vowels to be understood with no or little effort. This rubric was adapted from the one used at Inglés por Áreas (a department of the School of Modern Languages). It also took into consideration the communicative language competencies established by

CEFR (Council of Europe, 2018) in terms of grammar, vocabulary, pronunciation, and content, which refers to the thematic component of the competencies.

An analytic rubric was also used to assess participants' writing skills. This rubric (see Appendix C) was adapted from different sources involving the competences described by the Common European Framework (Council of Europe, 2018) to reflect the main elements intended to be measured. The writing task contained a real-life framed prompt, which worked as the stimulus that the participants needed to respond. The rubric for assessing writing included the constructs of mechanics, grammar usage, organization and cohesion, vocabulary and task compliance. Each construct followed the competences of the CEFR, for instance; mechanics related to orthographic control, grammar usage to grammatical accuracy, organization and cohesion to coherence and cohesion, vocabulary to vocabulary range and vocabulary control, and task compliance related to thematic development (Council of Europe, 2018, pp. 132-134, 137, 141). Mechanics dealt with aspects such as spelling, punctuation and format. Grammar usage involved the participants' use of verb tenses (for example, simple present and simple past), subject-verb-agreement, pronouns, and modal verbs. Organization and cohesion relate to the logical order of ideas and the use of linking devices in writing. Vocabulary involved word choice and range of vocabulary related to the type of task evaluated. Finally, task compliance related to completing the four key elements of the task including enough supporting information.

d. Parameters used for assessing reading and listening

The receptive skills of listening and reading were assessed taking into account descriptors of the CEFR and two proficiency levels (basic and intermediate). Based on the information obtained through the questionnaire and follow-up interviews, the team decided to evaluate basic and independent users in the receptive skills since participants did not consider themselves at an advanced level. The listening section was designed using three types of items: multiple choice, fill in the blanks, and true and false. The reading section was made using four different types of items: fill in the blank, short answer, multiple choice, and a sequencing task. The CEFR has descriptor scales regarding communicative language activities and strategies, which are divided in reception activities and reception strategies (Council of Europe, 2018, p. 54). The aforementioned descriptors were taken into account to assess the proficiency level of the participants as receptive skills involve receiving and processing input. The researchers created two scales per macro skill based on adapted parameters from A1 and A2 for basic users and B1 and B2 for independent users as reference (see Tables 4 and 5). Additionally, the first two tasks for the macro skills of listening and reading were divided into 5 points each for a total of 10 points for low proficient learners and the third and fourth tasks were designed for moderately proficient learners, each of them with 5 points for a total of 10 points. Therefore, if the participant scored from 1 to 10 points from the first two tasks from each macro skill (listening and reading), the student is considered to be at a low proficiency level at the corresponding skill. If the learner answered correctly most points from the 10

points intended for moderate proficiency plus the 10 points designed for low proficiency, the student was considered to be at a moderate proficiency level (see Table 3).

Table 3

Quantitative Parameters to Assess Listening and Reading

Proficiency	Points	Tasks
Moderate	11-20 correct answers	A, B, C and D
Low	1-10 correct answers	A and B

Table 4

Listening Scale

Proficiency Level	Criteria	Type of Listening	Task
Moderate	Can understand the main points of a guided One-Sample T-Test when the delivery is clear.	Listening as a member of a	3
	Can follow the essentials points of academic/professional presentations in the field.	live audience	

	Can understand most content in a recorded tutorial delivered in standard form of the language encountered in professional or academic life.	Listening to audio media & recordings	4
Low	Can generally identify the topic of an interview discussion conducted slowly and clearly.	Understanding conversation between other speakers	1
	Can follow social exchanges, conducted very slowly and clearly.		
	Can catch the main point in clear and short tutorials.	Listening to audio media & recordings	2
	Can understand simple technical information. such as unbiased sampling techniques.		

Adapted from Council of Europe (2018, pp. 56-57, 59).

Table 5

Reading Scale

Proficiency Level	Criteria	Reading comprehension	Task
Moderate	Can identify relevant information from longer excerpts of books.	Reading for orientation	3
	Can identify main ideas and supporting details from texts about statistics applied in Medicine.		
	Can interpret literal and implied meaning from a book excerpt.		
Low	Can recognize the line of meaning in an excerpt from an article.	Reading for information and argument	4
	Can obtain information and ideas from a specialized source within the statistic field.		
	Can understand very simple formal information via emails.		Reading correspondence
Can identify specific details with literal meaning	2		

Adapted from Council of Europe (2018, pp. 61-63).

e. General administration issues

The test was administered in order to identify the students' strengths and weaknesses regarding their use of English in the field of Statistics. Participants were contacted by phone to agree on a suitable date and time to apply the diagnostic test. The test (see Appendix C) was administered at the University of Costa Rica in its main campus, in a classroom of the School of Statistics; therefore, professors and students did not have issues arriving at the location. The classroom had suitable equipment for the administration of the test such as appropriate desks, computer, and speakers, which were checked ahead of time to reduce any possible glitch. The location of the classroom and equipment helped to meet the principle of test-administration reliability; thus "standardizing the conditions to optimize data collection was therefore the goal" (Fulcher, 2010, p. 254). Moreover, participants were given three different schedules to take the test at different times of the day (morning, afternoon and evening), meeting the principle of student-related reliability allowing students to have flexibility attending the test (Brown, 2004). The test was administered during two weeks from April 16th to April 20th and from April 23rd to April 27th. A maximum of two participants took the test at the same time. The time allotted for the test was two hours, meeting the principle of practicality by providing a reasonable period to take the test (Brown, 2004). Thus, the interview took from fifteen to twenty minutes, the listening part took thirty minutes, the reading section and the writing section took thirty minutes each. In addition, fifteen minutes were used to provide directions in order to make sure participants knew what to do for each type of task (Genesee &

Upshur, 1996, p. 201). It is important to emphasize that each group of students was given the same amount of time to complete the test. Nevertheless, most participants finished it in one hour and forty-five minutes, which may evidence face validity, as “the test was clearly doable within the time allotted” (Brown, 2004, p. 27).

The order of the administration for each section was speaking, listening, reading, and writing. The speaking section was given at the beginning, so students would not be tired after completing the written test. The test administrator followed a procedure based on the framework proposed by Canale (as cited in Coombe, Folse & Hubble, 2007, p. 5) who stated, students do better when they are led through the several stages. The first stage consisted of a warm-up, in which the tester helped the student feel at ease by asking some basic information questions such as “what’s your name?” “where do you live?” “tell me about your family”. Then, the tester asked some questions or statements such as “tell me about your hobbies” or “what do you do in your free time?” in order to check the level of the students. Once, the tester had estimated the student’s proficiency level, he or she administered the first speaking task. If the student’s performance was appropriate, the tester gave him/her the second and the third speaking tasks. This would give the tester a more complete perspective of what the student could actually do with the language. After that, the tester helped to put the student at ease again by asking him/her questions such as: “this is almost the end of the interview, what are you going to do after this exam?” or “what are your plans for the rest of the afternoon/morning?”

Then, the listening part was administered to avoid repeating this section in case the participants arrived late. After the aforementioned sections, test-takers completed the reading and writing parts at their own pace. In addition, three of the readings were provided separately so that participants did not have to constantly go back and forth while answering the reading section (Coombe, Folse, Hubley, 2007). Finally, the test was given to nine participants.

Regarding the order of the block of items within each task, the diagnostic test was designed following the facility order; therefore, the tasks in which learners could yield the best performance came first (Genesee & Upshur, 1996, p. 204). As a result, items in each task were placed from the easiest to the most complex ones to help learners gain confidence during the test (Genesee & Upshur, 1996, p. 205).

H. Results and Discussion

a. Proficiency level

The results of the diagnostic test showed a very heterogeneous proficiency level regarding each skill. As a result, it was necessary to define three levels instead of the two originally established. When assessed through the diagnostic test, the learners' performance fell within the following three categories, elementary, low, and moderate. No student scored in any of the macro skills at a high level of proficiency (see Figure 3).

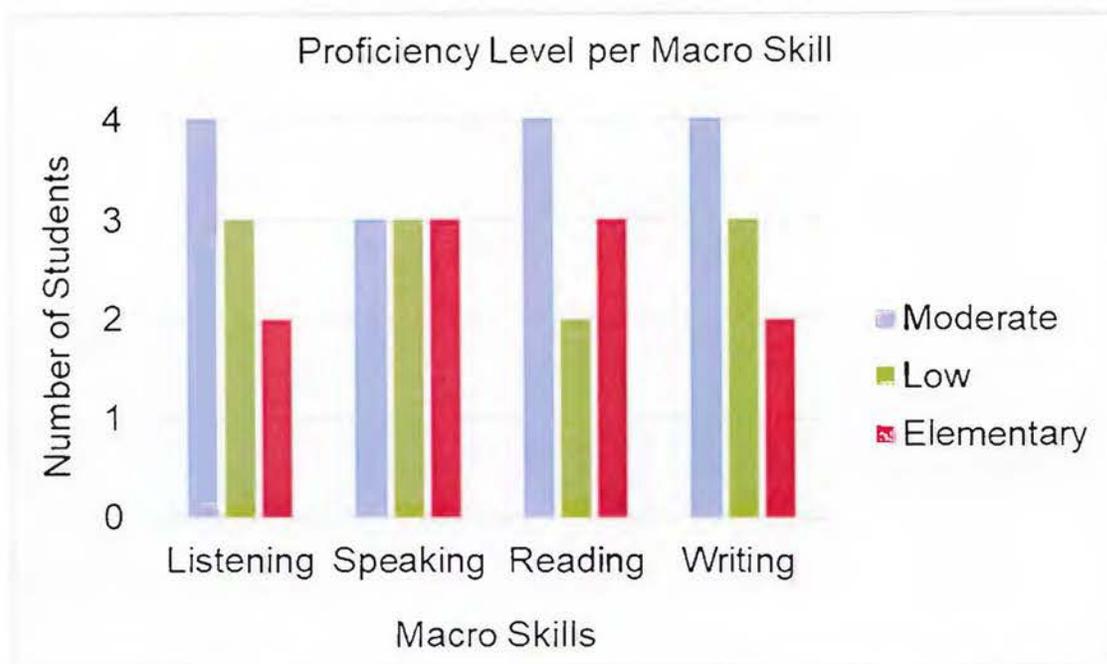


Figure 3. Overall participants' proficiency levels.

The students' performance in the speaking tasks demonstrated that the participants seemed to belong to three proficiency levels. Three students appeared to have an elementary level, according to CEFR parameters, because they "had a very basic repertoire of words and simple phrases related to personal details and particular concrete situations" (p. 7) to such extent that they had to constantly resort to Spanish to be able to communicate. In addition, these students were not able to complete all the tasks. Other three students showed a low proficiency level because they demonstrated the use of simple sentence construction that allowed them to make themselves understood in short statements; they were also able to link statements using simple conjunctions such as *and*, *because*, and *but*. The other three students seemed to have a moderate

proficiency level because they had a wide range of vocabulary both general and specific of the field. Their answers were more detailed, and they seemed to have some control of tense and aspect.

Concerning the listening part of the test, the results were slightly different. In this part, four students seemed to have a moderate proficiency level as to being able to complete most of the listening items (listening for specific details) that had slow and fast speech rate. Three of the students showed a low proficiency level, and the elementary level students were not able to complete most of the items.

The reading section was consistent in revealing three proficiency levels. Four students seemed to be moderately proficient since they were able to extract information literally and to answer questions that required summarizing and making inferences. Three students performed the reading tasks at a low level and the other two at an elementary level since they were unable to answer most of the items.

The writing section showed similar results. Four students seemed to have a moderate proficiency level because they provided detailed descriptions in paragraph format that contained subordination and other cohesive devices. Three students were apparently low because they wrote a string of sentences with few or no cohesive devices. Even though they provided few details, the message was conveyed somewhat clearly.

b. Strengths in the four macro skills

Regarding the oral skill, most of the students were able to answer basic information questions, which suggested that they had been exposed to the

language before. It was also perceived that most of the time students showed clear or understandable pronunciation. They also seemed to know a significant range of vocabulary related to their area of specialization. Although most of them did not use complex sentence structures, they were able to express their ideas through simple statements. In most of the cases, grammatical mistakes did not hinder communication. Most of them completed the four speaking tasks at a basic level, by providing short and simple responses.

In addition, participants also demonstrated some strengths regarding the listening skill. Apparently, it was easy for them to focus on specific details since they scored more points in the first two tasks, which had the objective of measuring the students' ability to identify specific information. Students also demonstrated that they could perform better when exposed to slow speech rate.

The reading tasks also revealed some strong points. Most students were able to extract information at a literal level by answering questions that focused on familiar topics such as place, date, time, and other aspects of a conference as evidenced in tasks one and two.

Furthermore, the writing task also elicited some of the students' abilities. In this task, most students were able to write sentences containing basic English sentence patterns. They were also able to communicate ideas at a basic understandable level. The participants also applied some elementary punctuation rules related to the use of the period and commas.

c. Weaknesses in the four macro skills

The students also displayed some weaknesses when performing the speaking tasks. Lexical planning and reformulations were common to all the participants, especially when searching for expressions or when articulating less familiar words (Council of Europe, 2018, p. 7). Accuracy was another major weakness since all of them exhibited errors related to subject-verb agreement, subject omission, syntax, verb tenses, and aspect. Similarly, omission of the final –s in plural nouns and third person singular as well as final sounds were features of all the participants' pronunciation. They also showed some flaws related to the correct use of word classes.

Regarding the listening skill, students showed difficulty when processing fast rate speech. Therefore, most of the participants could not complete the third task, which required them to take some notes. It was also difficult for them to focus on main ideas when exposed to fast speech.

The reading task also exposed some deficiencies. Most students had difficulties answering questions that required inferring or summarizing. It was also challenging for participants to identify cohesive devices that can help them follow a text sequence.

Similarly, the writing task showed that most of them have poor or little control of verb tenses and aspect, word classes, and coordinators. Additionally, most of them were not able to write complex structures containing cohesive devices. The majority of the participants did not comply with the basic conventions of email writing such as salutation, closing, and signature. Regarding punctuation,

they did not seem to know other punctuation rules regarding the use of question marks and the use of commas.

Chapter II: Syllabus Design

A. Course Logo and Name

Data analysis is a global need; for that reason, Statistics has become a worldwide field that interacts with professionals from different areas. Therefore, the original logo shows the symbols that represent some of the fields, mentioned by the participants, in which data analysis plays a vital role. From left to right, the fields are demographics, market research, psychology, education, health, finance, environment, and analytics. The central focus of the logo is a bar graph that represents the data involved in the different fields.

The name of the course is *Shaping Words*. Statisticians give shape to numbers and data in order to ensure validity and usefulness of the results. The process of data analysis resembles the process of learning a language. In this course, learners recognized patterns in structures, manipulated vocabulary, as well as described and analyzed language in order to interpret it. This ESP course intended to help learners shape language and give meaning to words in order to satisfy their needs and achieve the goals of the course.



Shaping Words

English for Statisticians

B. Course Description

Shaping Words: English for Statisticians is an English for Specific Purposes (ESP) course intended for professors and undergraduate students at the UCR. The course aimed to provide students with tools to improve their communicative skills through a Task- Based Language Learning approach at an elementary, low and moderate proficiency level. The purpose of this course was to provide learners with appropriate strategies and specific language to interact with English speakers, participate in conferences, and read articles in order to meet the students' academic and work-related needs within their field (see students' version on Appendix D).

Two student-teachers, who are language instructors, taught the course. It was scheduled on Mondays from 5:00 pm to 7:30 pm in the auditorium of the Health Sciences Library, and it lasted 13 weeks. The course integrated the four macro skills, but emphasized three of them: listening, speaking, and reading as well as some of their corresponding micro skills. The macro and micro skills were

approached through the design of tasks and materials to meet students' immediate and delayed needs. Authentic material was included through the course in order to provide learners with technical vocabulary, authentic-language use, and real-life interactions. In addition, the course encompassed strategies to integrate elementary and low proficiency learners in class activities.

C. Statement of Goals and Objectives

Unit 1: What are conferences about?

The first unit dealt with one of the most important needs statisticians highlighted in the needs analysis process: attending conferences. The population of this ESP course wanted to be able to attend conferences in order to understand relevant information, interact with other members of the audience, and ask presenters questions about their talks. Therefore, unit 1 involved two goals related to attending conferences as members of the audience that incorporate several skills such as listening, reading and speaking. The diagnostic test revealed that participants are at a low proficiency level at listening; therefore, the main content of the first goal focused on one section of a conference in order to make it manageable and doable for learners. This goal mostly targeted the organization of an introduction to a talk at a conference, signposting language used to highlight each section in an introduction, and main content points. The second goal dealt with interactions among participants and presenters at a conference involving several functions such as greeting, introducing themselves, sharing personal information, commenting on topics, and formulating adequate questions in a question-answer session.

Main Skills: Listening, reading and speaking

Goal #1. By the end of the unit, the students will be able to successfully show understanding of introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

General objectives: By the end of the lesson, the students will be able to:

1. properly identify steps in the moves of an introduction by analyzing excerpts of sample presentations.
2. accurately recognize signposting language used to introduce each move or section in an introduction.
3. effectively show understanding of key points delivered in an introduction to a talk by taking notes.

Goal # 2: By the end of the unit, the students will be able to interact effectively with presenters and participants in English when attending conferences by using appropriate structures, register, and vocabulary.

General objectives: By the end of the lesson, the students will be able to:

1. effectively interact with other conference participants during breaks at a conference by introducing themselves, exchanging pieces of information, and commenting on topics, based on the subjects or a research study being presented.
2. appropriately request information during a question-answer session after a talk at a conference by formulating adequate questions.

Unit 2: Sharing knowledge

In the second unit, students continued working on conferences but as presenters this time. Statisticians mentioned they would like to be able to present their research projects at conferences or talks in order to generate knowledge among the statistical community. In Unit 1, learners became familiar with the structure of introductions to talks at conferences; as a result, in unit 2 they worked on delivering strategies and structuring an introduction. This unit focused on breaking the introduction into manageable units as the participants have a low proficiency level in speaking; thus, they only prepared and delivered a well-developed introduction for an audience.

Main Skills: Speaking, listening, reading and writing

Goal: By the end of the unit, the students will be able to orally present the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, delivery strategies, and vocabulary.

General Objectives: By the end of the lesson, the students will be able to:

1. appropriately recognize characteristics of well-delivered presentations and delivery strategies by analyzing authentic videos of sample presentations.
2. properly deliver an introduction to a talk on a topic of moderate complexity in their field using delivery strategies, appropriate structures, and vocabulary.
3. successfully interpret results from graphs or figures of a research by using the appropriate vocabulary and structures.

Unit 3: Interpreting words

The third unit dealt with a very important necessity for statisticians regarding field-related articles as they consider reading academic articles a present and future need. Therefore, this unit focused on identifying moves in abstracts, introductions and methods section from academic articles as well as relevant content. The participants recognized main ideas and supporting details in these kinds of texts by using reading comprehension strategies such as identifying context clues, cognates, and nominalizations. Students learned and reinforced technical terms regarding different types of sampling techniques, descriptive models, and data analysis. They would also become familiar with high frequency language in articles such as cohesive devices and lexical phrases that describe each section of a text. Participants highlighted the fact that they first read the abstract and introduction of articles in order to identify whether the document is useful for their goals. Consequently, as the participants had a low proficiency level in reading, the unit focused only on abstracts, introductions and the methods section of articles in order to improve the learners' reading skills.

Main Skills: Reading and writing

Goal: By the end of the unit, the students will be able to demonstrate comprehension of abstracts and introductions from research articles by identifying main sections and relevant ideas from the text.

General Objectives: By the end of the lesson, the students will be able to:

1. successfully identify the moves of abstracts from a research paper or article by analyzing sample texts.
2. accurately recognize the organization of introductions from research papers or articles by analyzing sample texts.
3. accurately recognize the parts of the methods section of a research article by analyzing sample texts.

As previously described, this ESP course encompassed three units, which involved tasks related to statisticians' academic and professional life. The units focused on immediate and delayed needs of learners involving the four macro skills emphasizing listening, speaking, and reading, macro and micro skills, and real-life functions (see Appendix E to read the contents taught in each unit)

D. Methodology

a. Task Based Approach

The purpose of this ESP course was to provide students with the necessary tools to carry out several job-related tasks that are crucial for them to develop professionally. With this in mind, the course was based on the Task Based Language Teaching (TBLT) approach, which comprises characteristics that suit the course goals. For example, Richards and Rodgers (2001), defined TBLT as an approach based on the use of tasks as fundamental "units of planning and instruction" (p. 223). They also indicated that TBLT is founded on the premises that "activities that involve real communication are essential for language learning" in the same way that "meaningful tasks promote learning" (Richards & Rodgers,

2001, p. 223). Skehan (1996) stated that TBLT focuses on meaning rather than form in order to achieve communication and task completion (p. 42). Douglas (2014) added that TBLT “provides the learners with the necessary opportunities to engage in the authentic use of the target language through tasks” because they encourage pupils to use the language as it is used outside of the classroom (p. 3). Likewise, Ellis (2003) stated that students learn the language and develop other skills when working together to try to complete a task, which “motivates them to stretch available language resources” (p. 62). These principles and characteristics converged with most of the course objectives since it focused on activities that promote meaningful communication in real-life like scenarios in order to help students fulfill their needs. In the specific context of this syllabus, the students would perform pedagogical and work-related tasks in the field of statistics.

b. Characteristics of the task cycle

The Task Based approach is not just a task, but rather a series of tasks that are interconnected in order to achieve one or more objectives. This block of tasks is called *task cycle*, and it consists of four stages: pre-tasks, main task, post tasks, and language focus. Before moving to pre-tasks, learners activate background knowledge and break the ice with a warm-up activity to set the mood for the class; then, the task cycle begins. In the pre-tasks, the topic is introduced, so the learners start thinking about the topic; in other words, students are prepared to carry out the main task through meaningful input. As stated by Skehan (1996), pre-tasks make the main task less difficult for learners as they model the type of task they will carry out, and the language they may need to use in the following

stage of the cycle, reducing the cognitive load and establishing the target language (p. 54). In the main task, the students can use “whatever language they already have to express themselves” (Richards & Rodgers, 2001, p. 239). At this point, interaction is spontaneous, which helps students build self-confidence regarding language use. In addition, Willis and Willis (2007) stated that learners tend to have a more personal participation when they engage in meaning which involves language development as students end up picking up phrases or vocabulary they have been exposed to (p. 9). Once the task is completed, the students have some time for planning how they are going to report their outcome to the rest of the class. Finally, some minutes are devoted to reporting, so each group or pair of students report their findings briefly (Richards & Rodgers, 2001, p. 239). The cycle continues with a post-task activity, which complements the main tasks and helps the learner reflect on his/her own learning. The last stage is the language focus in which some linguistic structures or features present in the main task are analyzed and practiced in context. Learners are guided to notice new forms they have been exposed to in the previous stages, as form comes after meaning in TBLT (Willis & Willis, 2007, p. 18). This final stage may also involve feedback from the language generated in the previous stages of the cycle in order to promote accuracy and self-monitoring (Skehan, 1996).

c. Classroom dynamics

Two student-teachers will teach the course, and they will have two basic interchangeable roles. One student-teacher played the role of the lead teacher or facilitator (F) who was in charge of greeting the students, explaining the objectives

of the lesson, giving general instructions, modeling the activities that will be carried out, and monitoring the students' performance. Meanwhile, the other student-teacher played the role of facilitator assistant (FA) who helped the lead teacher to set up the equipment, distribute handouts, erase the board, write useful language on the board, model activities, monitor the students' performance, and help them whenever necessary to carry out the tasks successfully. Since role rotation was necessary, a schedule was created to keep a record and ensure equal participation. Roles changed every session (see table 6).

Table 6

Student Teacher Roles

	Session 1	Session 2	Session 3	Session 4
Facilitator	Sandra	Teresita	Sandra	Teresita
Facilitator Assistant	Teresita	Sandra	Teresita	Sandra

d. Tasks and techniques

Tasks are essential elements of TBLT; therefore, it is vital to identify certain features. According to Nunan (2004), a task can be defined as a communicative activity that involves "comprehending, producing, and interacting" in the target language, and in which meaning is more important than form (p. 4). Shehadeh

(2012) provided other characteristics of a task; he states that a task is “goal-oriented, content focused, has an outcome, and reflects-real life language use and need” (p.156). Thus, the course was designed within these parameters to ensure communication and meaningful learning.

Regarding classroom interaction, the results from the questionnaire during the needs analysis stage showed that students prefer to work in pairs, small groups or individually. For this reason, most of the tasks emphasized this type of dynamics. Among the activities that students carried out in class, we can cite pair work and group work discussions, problem-solving activities, role-plays, oral presentations, information-gap activities, jigsaw puzzles, and whole class discussions. Tasks involved pedagogical (completing charts for example) and real-life (a simulated conference presentation) tasks which resemble real-life functions and language use in order to meet the goals of the syllabus.

Considering the fact that the course addressed to a multilevel group, the teaching techniques that the student-teachers used seek to lower anxiety levels (especially from elementary-level students), promote equal participation and meaningful learning among the participants. To achieve this, it is important to take into consideration Krashen and Terrell (1983) who stated that learners “understand language at their proficiency level, and this understanding aids language acquisition” (p. 5). For this reason, Magrath (2010) advised that in multilevel classrooms, activities should allow “a natural exchange of information” and “plenty of input” (p. 4). He also proposed the following techniques that the student teachers adopted in order to achieve the established goals: simplify language and

syntax especially when giving directions and explanations, so the language will be accessible to all, make groups according to proficiency level whenever possible, speak clearly but at a normal rate, repeat and review whenever is necessary (pp. 4-5). Other techniques included modeling activities and using visual aids. In addition, high proficiency learners were assigned roles, for example, as leaders of small groups in order to support low achievers. Materials were adapted to match low proficient learners' needs, and strategies were included in the lesson plans to reinforce their skills as well. Nevertheless, high proficiency learners received challenging roles and tasks variations based on their proficiency level.

Errors were addressed during the final stage of the cycle in each lesson in order to provide correction on language issues. They were also addressed during the pre-task and planning phases using non-threatening techniques such as repetition and paraphrasing. The student-teachers modeled pronunciation, had students repeat, and corrected grammatical structures. In this regard, Taylor (2012) affirmed that "constant correction is unnecessary and even counter-productive"; he recommended that error correction be done discreetly (p. 37). Therefore, if it was done during the last stage of the cycle, students would not feel threatened. However, errors that interfere with communication were addressed immediately, but discreetly.

e. Role of learners

In TBLT, learners are the main source of information as the goals are designed to meet their needs. Students were trained on learning strategies through the Cognitive Academic Language Learning Approach (CALLA) and they

were encouraged to take risks in order to have an active role in class. Students should be responsible for their own learning, so they were required to comply with all in-class and out-of-class assignments. Richards and Rodgers (2001) described specific roles for learners in TBLT such as group participant, monitor and risk-taker; therefore, they should participate actively in pair work and group work activities as well as in whole class discussions (p. 235). Students should monitor their own learning as tasks provide opportunities for them to notice how language should be used (Richards & Rodgers, 2001, p. 235). Consequently, if learners attend classes regularly, they will be able to reflect on their production and apply strategies to improve it during the process. In addition, tasks should motivate the participants to become risk-takers as they are encouraged to experiment with language in order to “create and interpret messages” (Richards & Rodgers, 2001, p. 235) without feeling scared of making mistakes as they are an important part of the learning process. Finally, learners were expected to be motivated, committed to their own learning, and willing to participate in the course so that they can enrich each session and achieve their own goals for the course.

f. Role of the teachers

Considering the fact that the course will have an ESP focus, the student-teachers had some key roles as suggested by Dudley-Evans and St. John (1998) that tend to differ with traditional teaching roles. First, they were in charge of planning the course and designing, adapting, and providing the materials and tasks that will be used throughout the course (p. 14). They also acted as collaborators since they will have to support each other when designing and implementing

materials. In addition, they had to assess the effectiveness of the course and the teaching materials as recommended by Dudley-Evans and St. John (1998, p. 16). Student-teachers evaluated the students' performance by using different testing methods in accordance with the course goals. Furthermore, since the course used TBLT, the student-teachers also acted as facilitators and resource managers by providing materials and directing tasks. However, they also played a more traditional role at certain moments, especially when it came to focusing on a grammatical or pronunciation feature (Ellis, 2009, p. 236).

E. Assessment

Assessment is an important part of course design, as it should be planned and effective (Dudley-Evans & St. John, 1998, p. 168). Formal and informal assessment promote students' learning process and progress; therefore, both types were useful to obtain valid data regarding learners' knowledge and performance. As this type of course is ESP, assessment focused on tasks that resemble real-life situations with authentic materials that statisticians may encounter in their professional and academic life. The assessment established for this ESP course encompasses both types of assessment as described below.

a. Informal assessment

Brown (2004) stated that informal assessment can occur in a variety of forms as it can be planned or incidental (p. 5). Therefore, constant feedback becomes ongoing assessment to evaluate learners' use of the language. This type

of assessment was present in every lesson as facilitators are monitoring students' performance and providing comments, suggestions, and correction on their production. Informal assessment relates to formative assessment as teachers do not necessarily record results or test learners but focus on the development of the learner's language (Brown, 2004, p. 6). One of the main goals of formative assessment is to help students develop their competencies, skills and continuation of their future learning (Brown, 2004, p. 6). As a result, Brown (2004) pointed out that it is essential for learners to be open to feedback as a way to incorporate the teacher's corrections into their performance, and it is relevant for facilitators to provide appropriate feedback and communicate it effectively (p. 6). Learners received formative non-graded assessment during the entire course through feedback in order to help them improve their language skills. They received peer assessment feedback through forms to evaluate the macro skill of speaking in units 1 and 2. Learners also evaluated themselves through self-assessment forms during the units to help them reflect on their learning.

b. Formal assessment

The course also involved the formal assessment component. Formal assessment is defined by Brown (2004) as a procedure devised to access an arsenal of knowledge and abilities, which allows teachers to evaluate students' achievement (p. 6). As part of this formal assessment, we also included summative evaluation in order to measure what the student actually understood and is able to do (Brown, p. 6). This evaluation was carried out according to Task

Based assessment principles since TBLT was central to this course. Among those principles, we can mention that the evaluation instruments had the task format because “TBLT assessment is organized around tasks rather than grammar and vocabulary” (Shehadeh, 2012, p. 157). In addition, task design has emerged from the needs analysis as suggested by Long and Norris (2002, p. 600). It was also based on the construct centered approach and the work sample approach proposed by Ellis (2003); thus learners had to do tasks that they will need to perform in a real life scenario and that will help the facilitators determine what they can do in a specific situation (p. 286). Finally, pedagogical tasks were also designed in order to involve micro and macro skills as well as language functions. Considering all these aspects, the summative evaluation and assessment tasks (see Table 7) are detailed as follows.

Table 7

Course Assessment

Type of assessment	Percentage
Attendance	5%
2 Academic Tests	30% (15% each) (Unit 1 and Unit 3)
2 Speaking Tasks	30% (15% each) (Unit 1 and Unit 2)
Conference Simulation	20%
Short Quizzes	15% (1 per unit)

We considered that attendance is an important element to evaluate in order to encourage students to commit to the course and go through the whole learning process; thus, attendance was worth 5%. Students were allowed to be absent from class a total number of eight hours (8 hrs.). Students also took two academic tests worth 15% each one. Both of them involved the types of authentic listening and reading tasks that students have to deal with in their field. The first one consisted of listening to introductions to talks in order to complete an outline or answer specific questions about the content points of the talk. This task was administered at the end of unit 1. The second academic task consisted of having students read abstracts and introductions from articles in order to demonstrate understanding by completing a graphic organizer and answering a set of questions.

The course included two speaking tasks worth 15% each. The first task was carried out in pairs, and it will be administered at the end of unit 1. Students pretended that they were at a conference coffee break. They interacted with other conference participants and exchange information related to their field. This task involved functions as questioning, negotiating meaning, clarification and confirmation strategies. The second speaking task was about presenting a well-developed introduction at a lecture or conference, and it will be administered at the end of unit 2. Learners implemented delivery strategies, signposting language, and appropriate structures and vocabulary in order to complete this task. Learners received peer assessment, and they will evaluate themselves through assessment forms in order to reflect on the learning process and task achievement.

Students also took part in a conference simulation worth 20%, which was applied at the end of unit 2 but encompassed elements of unit 1 as well. In this task, students reported a research project that they had conducted in the past. Learners showed understanding of the main moves in the introduction of a presentation by greeting the audience, catching their attention, introducing themselves, setting the framework of a talk, contextualizing their research area, and outlining their presentation. The presentation took about 10 minutes, and learners put into practice the knowledge gained through the unit using delivery strategies and a well-developed introduction. Learners also interacted with their partners during the simulation, as they will also share with each other and exchange information. Analytic rubrics were used to evaluate specific constructs behind the speaking tasks and simulation.

Finally, three quizzes were also administered during the process, which were 5% worth each. In the first quiz, students had to organize or sequence a text by taking into consideration different cohesive devices and the characteristics of the different parts of an introduction. They also had a listening quiz in which they identified four elements of an introduction (greeting, introducing themselves, giving their credentials, and introducing the topic). The third quiz will be about reading abstracts of research projects in order to identify specific information to answer questions.

c. Formative, summative, and authentic assessment

ESP assessment involves a variety of options to meet specific purposes and students' needs. Systematic data regarding the course goals, students' learning and facilitators' instructions can be obtained through simulations, peer and self-assessment, quizzes, tests and the course evaluation in order to improve teaching and learning (O'Malley & Valdez Pierce, 1996). In addition, Dudley-Evans and St. John (1998) pointed out that assessment is necessary in an ESP course because the feedback it provides helps learners to build up confidence, get involved in their own learning process, and recognize their progress (p. 210). Considering this, formative, alternative, and summative assessment played a crucial role in this course.

Formative assessment was part of the course through peer- and self-assessment. According to Dudley-Evans and St. John (1998), self and peer assessment can "help develop the competence that ESP learners require for their continued progress" (p. 212). They also stated that these types of assessment are increasingly recognized as effective since "they help the learners become more self-directed" (p. 213). For these reasons, students did peer and self-assessment throughout the course in order to promote more involvement in the learning process.

Authentic assessment, also known as alternative assessment (Brown, 2004), took place in this ESP course as well. Alternative assessment would provide students with simulations and speaking tasks that work as authentic ways to demonstrate new knowledge and skills that students will acquire and apply to

meaningful scenarios (O'Malley & Valdez Pierce, 1996, pp. 10-11). For instance, students simulated real life situations when delivering the introduction to a talk since being presenters at a conference was a learners' reported need.

Summative assessment was also present. Brown (2004) stated that summative assessment serves to determine what the student has learned or understood at the end of a course or unit (p. 6). Thus, students had a speaking activity at the end of unit 1 and 2 and a conference simulation at the end of the unit, which was used as parameters to define how much students have been able to grasp. Finally, the instruments designed to achieve summative, formative, and authentic assessment will be described as follows.

d. Description of assessment instruments

d.1. Student Performance

As part of the course evaluation, unit 2 addressed the need of delivering introductions to talks at conferences. Therefore, students were assessed on their performance when delivering an introduction to a talk, which was the second speaking task of the course. The instrument designed (See Appendix F) assessed students' performance during a simulation task after being taught sign-posting language, delivery strategies, introduction moves, and content of the introduction. The purpose of this speaking task was to assess the students' use of language and skills to perform a presentation in front of an audience. In addition, the facilitators used an analytic rubric to obtain specific feedback on learners' performance (Genesee & Upshur, 1996, p. 206). The analytic rubric evaluated task completion, organization, delivery, language use (grammar and vocabulary), and pronunciation.

This task met the characteristics of authentic assessment, as learners will eventually become speakers at conferences. During classes, students performed several pre-tasks and tasks that would scaffold their way into organizing an introduction to a talk within a specific context (O'Malley & Valdez Pierce, 1996, p. 85). The speaking task was worth 15% of the students' final grade and it had a value of 20 points. Learners were recorded during their presentation so that they could watch their performance and assess themselves by using a self-assessment form.

d.2. Course Evaluation

Students assessed the effectiveness of the ESP course by using a checklist (See Appendix G). This checklist consisted of ten statements, which students had to rate using a frequency Likert scale that goes from *always* to *never*. The criteria for this instrument evaluated aspects such as the logical sequence in which contents and units are presented, the appropriateness of tasks and unit objectives, the relevance of the materials and contents to students' work field and professional life, as well as evaluation pertinence as recommended by Graves (2002). In addition, an open-ended question was given so that students are able to make suggestions and provide feedback on specific aspects to be improved in the following unit, as learners are an important source of input for the course. The instrument designed was applied after completing unit 2. However, a similar checklist was administered at the end of each unit to determine the effectiveness of the course up to that point so that changes can be made in order to meet the students' needs (Graves, 2002).

d.3. Student Teacher Evaluation

Similarly, learners assessed student teachers' performance by using a checklist. This instrument (See Appendix H) consisted of twelve statements that students rated using an agreement Likert scale in which 1 means strongly disagree and 4 means strongly agree. Students evaluated aspects such as punctuality, time management, rapport, mastery of topics, and methodology. The instrument also included a section for students to make suggestions and provide comments on specific aspects related to each facilitator's performance. The assessment was carried out at the end of each unit so that student-teachers could implement suggestions timely. The purpose of this evaluation was to determine strengths and weaknesses of the facilitators at the time of delivering each session in order to make improvements in subsequent classes.

d.4. Peer- and Self-assessment Forms

Peer-assessment form

In the second speaking task, learners assessed their partners by using a peer-assessment form (See Appendix I). Each student evaluated two partners during their presentations. Students were requested to take notes on aspects such as the structure of the introduction, organization, confidence, and delivery strategies. They were also encouraged to take notes on their partner's language use in case they notice any mistake on pronunciation or structure. Moreover, learners provided additional feedback on their partners' performance by completing three statements on the form. The purpose of this peer-assessment was to promote cooperative learning by having learners provide feedback on others'

performance and help learners reflect on their learning to be able to discern their own errors (Brown, 2004, p. 270). During classes, learners were given different opportunities to participate in peer-assessment rating in order to become more skillful at it.

Self-assessment for second speaking task

During the second speaking task, which consisted of presenting an introduction to a talk, learners also assessed themselves. Students were recorded during their presentations so that they could watch themselves at home to evaluate and reflect on their own performance. The instrument designed (See Appendix J) involved can-do statements to help learners assess areas such as delivery strategies, time management, language use, and structure of their presentation, among others. Students had a section to write comments and expand on how they can improve each aspect. This instrument aimed at encouraging learners to focus on their performance and learning as well as to set objectives for their own learning process (O'Malley & Valdez Pierce, 1996, p. 69).

Self- assessment per unit

At the end of each unit, students also filled in a self-assessment checklist. This instrument was used for unit 1, and it consisted of eight can-do statements (See Appendix K). These can-do statements designed for unit 1 evaluated the ability to introduce themselves properly, exchange information with other people, answer simple information questions, and understand interactions with English speakers, among others. A similar instrument was designed per unit since each

unit has different goals and objectives. The aim of this self-assessment instrument was to raise students' awareness of their own learning process and the attainment of the objectives established in each unit so that learners could have a more direct participation (Brown, 2004, p. 270).

Chapter III: Course Evaluation Report

The current report was based on an English for Specific Purposes (ESP) course and it was designed to meet a requisite in order to obtain the Professional Master's degree in English teaching as a foreign language at University of Costa Rica (UCR). The course in which this investigation took place is called *Shaping Words*, and it integrated different elements – the teacher, the students, the materials used, and the classroom, among others, which constituted a synergy that enhanced an appropriate development of the course. Aware of this situation, the researchers believe that a major component of an ESP course based on the Task Based Language Teaching (TBLT) approach is precisely the tasks used in it, as they have to comply with both TBLT and ESP principles.

In this context, the researchers maintain that adequate task design and its successful implementation are critical factors that contribute to achieve the course goals and help students fulfill their needs. Therefore, this study aimed to determine to what extent selected main tasks and their implementation in an ESP course for statisticians meet TBLT principles. With this in mind, the researchers investigated students' perception of the activities, external evaluators' point of view regarding the design and implementation of main tasks in each session, and students' performance in each unit regarding task achievement and TBLT principles.

A. Review of the Literature

The course has been designed within the framework of the ESP and TBLT approaches; therefore, it is relevant to refer to their underlying principles and how they have been the cornerstone of this project. The current literature review has

been divided into three main parts. The first part refers to the role of TBLT in the ESP classroom and reviews the distinguishing features of ESP and TBLT. The second part deals with tasks types and sub-categories, and the third part discusses the main principles and characteristics of task design and implementation under TBLT.

a. The role of TBLT in the ESP Classroom

During the past years globalization and the constant technological and telecommunication advances have positioned English as an international language and a lingua franca. This scenario has forced many professionals, including blue-collar workers, to learn English in order to access the labor market, have a better job, or perform job-related activities in that language. As a result, two approaches to learning English as a Foreign Language (EFL) have gained popularity: TBLT and ESP, as they both promote meaningful learning in real-life settings. To further understand this trend, it is necessary to review the distinguishing features of ESP and TBLT.

a.1. ESP's distinguishing features

Dudley-Evans and St. John (1998) defined three distinguishing features of ESP, which he calls "absolute characteristics" (p. 4). The first characteristic is that ESP attempts to meet the learners' needs. The second characteristic is that its content or syllabus is based on the job-related activities of the "discipline it serves", and the third feature is that it focuses on the language (grammar, lexis, register) that is used to carry out those activities (p. 4).

Given the aforementioned traits, in an ESP course, the goals and objectives revolve around the learners' needs, which have been previously determined by a needs analysis. In addition, Belcher (2009) highlighted the importance of collecting data that can be used as input. Belcher (2009) mentioned that materials gathered can work as "authentic, needs-specific course materials and task stimuli" (p. 7). The information and materials collected can guide decisions regarding the design of the ESP course. Thus, the classroom activities that take place in an ESP setting should try to emulate real-life scenarios in order to provide learners with the necessary tools to perform their workday activities in the target language more effectively.

a.2. TBLT distinguishing features

In the same way, TBLT comprises three major characteristics that distinguish it from other approaches. First of all, TBLT is a learner-centered approach, it focuses on meaning rather than form, and it is based on a series of tasks which serve as vehicles to achieve its goals. In other words, the main purpose of TBLT is to integrate classroom tasks that promote meaningful and real-life communication, as this is essential for language learning (Richards & Rodgers, 2001).

This establishes some common ground between ESP and TBLT. In ESP, the instructor designs tasks based on the students' job-related or academic needs.

Similarly, in TBLT, the instructor designs tasks that reflect real-life situations learners may need to perform, such as booking a hotel room or meeting with a client, among others. Therefore, ESP and TBLT form a strategic alliance required to achieve our course goals and fulfill the students' needs.

b. Task and task types

Considering that tasks are the central component of TBLT, it is pertinent to define what a task is in this context and how they can be classified.

b.1. What is a task?

Even though researchers have not agreed on a single definition of what a task is, as they still hold different views regarding the various components of a task, they all certainly agree on Willis' proposed definition. Willis (1996a) mentioned three basic elements of a task: activity, communication, and outcome. Therefore, a task is an activity where the target language is used to communicate in order to achieve an outcome. From this premise, other definitions have derived; for example, Skehan (1998) offered four features that distinguish a task from an exercise: a task focuses on meaning, it is goal oriented, it has an outcome, and it has a real-world relationship. In the same way, Ellis (2018) defined a task as a work plan, which involves some input and an outcome.

b.2. Types of tasks

After discussing the characteristics of a task, it is also important to mention the types of tasks. Nunan (1989) claimed that a course syllabus should integrate two types of tasks: real-world tasks and pedagogical tasks. Nunan describes real-world tasks as the ones planned to practice the type of activities learners will encounter in the real world, while pedagogical tasks apply language and functions in situations that can be transferred to real life events even if the activities do not reflect real-world tasks by themselves (1989, p. 41). Therefore, pedagogical tasks, also mentioned by Long and Crookes (1993), serve as a means to present suitable language samples, which can be related to what learners will do in the outside world. Ellis (2018) added that “real world tasks aim at situational authenticity” since they mirror real life situations, whereas pedagogical tasks “aim at interactional authenticity” as they reflect natural language processes and functions that occur in real life interactions such as turn-taking, active listening, or asking for clarification, among others (p. 359).

Within these two main types, Ellis (2018) also defined input and output tasks, which play a vital role in this task evaluation that we carried out in this investigation due to our course goals. Output-based tasks are the ones that involve the productive skills (speaking and writing tasks). Input-based tasks refer to the receptive skills: listening and reading. Even though some researchers

assume that tasks should have the interactive and productive components, Ellis (2018) pointed out that input tasks are equally important as they promote vocabulary acquisition. In addition, input tasks facilitate a different kind of interaction: learner – text interaction; that is, the students have to negotiate meaning with written or oral discourse features. For example, when reading a text, the learner has to make inferences and deal with aspects such as spelling and punctuation. In the same way, while listening to a text, the student deals with elements related to pronunciation, tone of voice, and stress among others.

Several authors have proposed hierarchies and lists of types of tasks depending on aspects such as interaction, cognitive processes, and type of knowledge. Willis and Willis (2007) recommended six types of tasks based on more or less traditional knowledge: listing, ordering and sorting, comparing, problem solving, storytelling (sharing personal experiences) and creative tasks (projects). In this regard, these authors explained that some types of tasks overlap: for example, when students are solving a task (task 1), they need to list possible solutions (task 2) and rank (task 3) the ones more likely to resolve the problem.

Other researchers have classified tasks based on the type of interaction that occurs when performing them. For example, Pica, Kanagy, and Falodun (1993) categorized tasks as a) jigsaw tasks in which learners combine pieces of

information to create a whole; b) information-gap tasks in which students have a different set of information to exchange by negotiating meaning in order to complete the task; c) problem-solving tasks in which learners are given a problem to solve within a particular context; d) decision-making tasks in which students solve a situation with a variety of outcomes but need to choose specific results; and e) opinion exchange tasks for learners' discussion of perspectives.

Richards and Rodgers (2001) classified tasks based on the type of exchange learners have during the task. These authors describe one-way or two-way exchanges, convergent or divergent exchanges (related to common goals or several different goals students achieve during the task), and collaborative or competitive exchanges. The aforementioned types are attempts to create a base for task design, which can lead to a wide variety of task subcategories.

TBLT advocates suggest that any type of task used in the classroom requires careful planning and design. Willis and Willis (2007) indicated that teachers need to pay special attention to topic selection, linguistic complexity (depending on students' proficiency level), visual support, and task sequence since one task can lead students into the next because task types are not necessarily mutually exclusive (p. 108). Consequently, tasks can be developed by following the key principles and characteristics of TBLT explained in the next section.

c. Main task design and implementation characteristics

Richards and Rodgers (2001) claimed that tasks are a tool to stimulate communication, which is why the preparation of a task cycle becomes essential. The task cycle phases involve pre-task activities to introduce the topic and the task, a main task which involves a planning and reporting stage, post-task activities, and a language focus which includes language analysis and practice activities (Richards & Rodgers, 2001). When teaching an ESP-TBLT class, the design and implementation of main tasks in task cycles should be carefully planned in order to meet relevant TBLT principles and characteristics.

The first requirement is related to communication in a goal-oriented view (Van den Branden, 2006). Main tasks should have a clear communicative purpose, as it is essential for language learning. Richards and Rodgers (2001) highlighted the fact that learners should use language in an interactive and purposeful form in order to achieve a particular learning outcome.

Another important characteristic of main tasks in TBLT is their ability to engage learners in the language learning process. This characteristic is related to the previous one since having a clear and real goal motivates learners to achieve task completion (Shehadeh, 2005). Tasks that match students' needs will motivate students to complete them by providing the data they need for learning and performing.

Main tasks should promote interaction among learners by providing useful language. During the implementation of the main task stage and previous stages in TBLT, students require gambits or chunks of language to communicate while performing the different activities of the lesson. Richards and Rodgers (2001) mentioned the importance of prefabricated phrases, lexical units and collocations as part of the demands of real-time communication. Therefore, main tasks should make use of these fixed expressions to facilitate interaction during teamwork.

The following requirement involves appropriate task-specific vocabulary provided during the preliminary stage of TBLT. Main tasks should incorporate vocabulary, words and phrases that learners are likely to require in order to carry out the task successfully (Willis & Willis, 2007). This vocabulary is presented during the pre-tasks to prepare students for the main task of the cycle; therefore, main tasks must make use of these task-specific structures and words to foster achievement of the goals.

Another relevant characteristic of main tasks in TBLT is that these should provide real-life language functions, for example, negotiating, asking for clarification, and asking questions, among other functions. Ellis (2009) pointed out the fact that functions are vital to interact in real world tasks. As a result, learners need to be exposed to authentic language use for real communication in the classroom so that they can apply it outside.

One of the essential principles of TBLT is the emphasis on meaning rather than form. Skehan (1998) highlighted the fact that meaning is a priority in TBLT; therefore, grammar is not explicitly taught during the first stages of the cycle.

Learners are exposed to grammar structures through modeling and context; in this way, students are more likely to reproduce new forms in the main task. Learners are encouraged to make use of their own linguistic resources and incorporate language already introduced during earlier stages of the cycle to convey meaning (Ellis, 2003). Students should focus on language use to reach the purpose of the task instead of grammatical accuracy.

Context plays a relevant role in TBLT as it should be meaningful to interest learners. Tasks have the important role of establishing realistic contexts to match students' needs and turn these needs into significant learning. Willis and Willis (2007) stated that tasks help "learners focus on the topic and engage their own learning and opinions on the subject" (p. 21). As previously stated, tasks should provide appropriate settings to relate to students' real use of language outside the classroom in order to make language learning meaningful and purposeful.

Tasks and mostly main tasks require the integration of different macro skills such as listening, speaking, reading and writing to achieve an outcome. TBLT provides learners with "plenty of opportunities to use language" (Willis & Willis, 2007, p. 2), which can be done in a variety of ways involving productive and

receptive skills. In addition, Brown and Lee (2015) suggested several advantages of integrating two or more skills in the classroom, such as a) interaction with others which involves sending and receiving messages, b) reinforcement of another skill when using a specific one, and c) involvement of any or all the four skills into the classroom. During main tasks, learners are encouraged to manipulate, produce, interact and report language in a wide range of forms.

Task design and implementation should be appropriate for students' proficiency level(s). Skehan suggests not only that learners should be exposed to varied language forms but also that this linguistic input should be at the edge of their comprehension, as they need to have constant linguistic challenge (as cited in Willis, 1996b). Therefore, the complexity of the language used in every lesson should be set slightly beyond students' level in order to raise their interest and motivate learners to produce language confidently.

Task activities should aim to help students achieve the expected outcome of the lesson. Leaver and Willis (2004) stated that TBLT tasks are outcome-based, which leads tasks to result in a product. Every class must provide the adequate conditions to attain its objective and the goal of the unit.

Finally, main task implementation and design should involve three essential steps. Richards and Rogers (2001) used the term *task cycle* to refer to main task organization and implementation. The first step refers to task performance. At this

stage, students engage in carrying out the task whether in pairs or in groups. They have the opportunity to express their ideas spontaneously. The instructor plays the role of a facilitator as he or she only intervenes to answer questions or to provide supportive feedback; errors concerned with form are not addressed at this stage.

The second step involves the planning time. During this period, learners prepare what they are going to report to the rest of the class about the outcome of the task. They may also rehearse what they are going to say or write a draft. At this stage, students should focus on organization, clarity, and accuracy (Richards & Rogers, 2001). This stage is very important because it can have an impact on students' accuracy, fluency, and lexical complexity (Li et al., 2015).

The last step consists of reporting the task outcome. The instructor asks one or two groups to summarize their findings while the rest of the group compares their answers. This part can even promote further discussion. The teacher takes notes and comments on the content of the reports but does not provide feedback on linguistic errors (Richards & Rogers, 2001).

In sum, main tasks should follow the previous characteristics in order to help learners achieve the expected outcome of the lesson. Teachers must pay careful attention to the design and implementation of main tasks and the entire task-based cycle to meet the requirements aforementioned. For these reasons, this study

aims to determine to what extent selected main tasks and their implementation in the ESP course for statisticians met the TBLT principles.

B. Methodology

a. Participants

This research study was carried out with a group of six students. Three of them were professors at the School of Statistics at the University of Costa Rica, and the other three were undergraduate students of statistics at the same university. The professors hold a master's degree in statistics and business administration. The participants' ages ranged between 21 and 38 years old. When carrying out tailored ESP tasks, four of them had a low English proficiency level and two of them had a moderate proficiency level in the four macro-skills according to the needs analysis (N.A.) carried out during the first semester of 2018. Only two of the participants (in this case professors) were part of the N.A.; the other students who participated in the N.A. had schedule conflicts, so they could not take the course. Possible participants were contacted during the mid-year vacation via an announcement made by the Statistics School secretary to enroll in the English course and completed a diagnostic test and a questionnaire as the previous participants.

b. Instruments

To collect information two agreement Likert scales were used. One of them consisted of eight items that sought to obtain students' perceptions regarding the main tasks (see Appendix L). Due to the fact that this instrument was administered in English, students were explained the terminology and concepts used in it during two sessions of approximately fifteen minutes each one to ensure learners comprehended the items. Moreover, those concepts were reviewed again every class before students filled out the instrument. To obtain the practicum supervisors' point of view, another Likert scale was used, which included ten items dealing with main task features and its implementation (see Appendix M). The supervisors' instrument contained the unit's goal that corresponded to the class observed, so that they could verify whether the main task was related to the outcome of the unit. Finally, the last instruments used dealt with students' performance during specific tasks, which were carried out during and at the end of each unit (see Appendices N, O, P and Q) and were part of the formal assessment (see Assessment in chapter II) of the course.

During the development and at the end of each unit, students had to complete several summative evaluations, which emulated the classroom tasks and sought to determine the achievement of both the goal of the unit and the objective of the task. At the end of unit 1, the learners carried out a speaking test (role-play),

which assessed their networking skills when interacting with other attendees at a conference coffee break. The facilitators used an analytic rubric to assess task completion, grammar, vocabulary, pronunciation, and interactive communication (see Appendix N for the instruments used in unit 1). In unit 2, students performed another speaking test in which they delivered the introduction to a talk in their field using appropriate organization and delivery strategies according to what was studied in class. The students received specific guidelines and were evaluated with an analytic rubric that assessed task completion, organization, delivery, language use (grammar and vocabulary), and pronunciation (see Appendix O for the instruments used in unit 2). Before starting unit 3, students carried out a conference simulation that encompassed elements from units 1 and 2, such as networking and delivering the introduction to a talk in their field; they also included a brief description of results using appropriate organization and delivery strategies. Learners were asked to follow specific guidelines and were assessed in terms of task completion, organization, delivery, language use (grammar and vocabulary), pronunciation, and interactive communication with another analytic rubric (see Appendix P). During unit 3, the learners took a reading quiz, which intended to have students demonstrate understanding of the moves of an abstract and an introduction of an article by completing a chart and answering specific questions about these sections. Finally, students carried out a reading comprehension test to

show understanding of abstracts, introductions, and the methods section of an article by completing a chart, answering a True/False exercise, and answering specific questions about these sections (see Appendix Q for the instruments used in unit 3). It is important to mention that the videos and texts used in the quizzes and reading comprehension text were taken from authentic sources and required little adaptation. In summary, the first two instruments evaluated characteristics of the selected tasks and their implementation according to TBLT principles while the third set of instruments evaluated the students' completion of tasks that resembled the units' corresponding goals.

c. Design and Procedure

This study was carried out based on the mixed methods approach since qualitative factors such as students' performance were observed on the main tasks and quantitative factors were obtained through the Likert scales and the summative evaluation (Dörnyei, 2007). The instruments also revealed qualitative data in the form of comments which along with the quantitative data were used to triangulate and "to validate conclusions by presenting converging results obtained through different methods" (Dörnyei, 2007, p.164). The data were collected every class during eight weeks from the fourth to the twelfth class; therefore, nine main tasks were assessed. The main tasks implemented in lessons 1, 2 and 3 were not assessed by the students nor the supervisors as the Likert scales were being

reviewed by the coordinator of the practicum; therefore, these main tasks were not part of the study. Concerning the class, it took place once a week, two and a half hours per class. Students completed the Likert scale after finishing the main task while practicum supervisors completed the corresponding Likert scale instrument during or right after the reporting stage of the main task finished.

Two main tasks were evaluated in unit one: the first one was about writing and asking questions during a question-and-answer (Q&A) session at a conference talk while the second one was a role-play about social networking at a conference coffee break. After completing unit 1, students carried out the speaking test 1 in which they role-played a conversation with a classmate. In unit 2, four main tasks were evaluated: writing and presenting an attention getter at a conference talk, writing and delivering an introduction to a talk, describing trends in a graph, and comparing the information presented in two graphs. During this unit, students were evaluated based on the completion of quiz 2 and speaking test 2. Once units 1 and 2 were completed, students performed a conference simulation involving elements from the aforementioned units. Finally, in unit 3, three tasks were assessed. The first task of this unit focused on reading an abstract to determine if the article it belonged to was worth reading to carry out a specific research project. The second task consisted of reading the abstract and the introduction of two articles about children obesity to determine which one was the most suitable to

carry out a given investigation. The last task involved reading the abstract, introduction, and methods section of two articles about road accidents to examine useful information to carry out a specific research project. In this unit, students completed quiz 3 and a reading comprehension test to evaluate their performance. Consequently, the data obtained from the two Likert scales and several evaluations (quizzes and tests) were gathered to triangulate the results of this research project.

C. Results and discussion

As it was mentioned before, several instruments were used to gather data. One instrument aimed to collect information about the students' perceptions of main tasks, the other focused on the external evaluators' point of view, and a set of tasks administered during and at the end of each unit sought to assess students' performance. These instruments intended to determine a) whether students considered the main tasks complied with TBLT principles, b) the extent to which external evaluators found the design and implementation of main tasks in each session effective according to TBLT principles, and c) if students' performance in each unit revealed task achievement. The results and discussion of the data gathered will be presented as follows.

a. Students' perception regarding main tasks

a.1. Unit 1

In unit 1, we sought to achieve two main goals, a) that the students could identify the main sections of an introduction to a talk, and b) that students could interact appropriately with other conference participants by networking and asking questions in a question-and-answer session. Figure 4 shows the students' perceptions of main tasks and their implementation in unit one, goal b, which comprised two tasks.

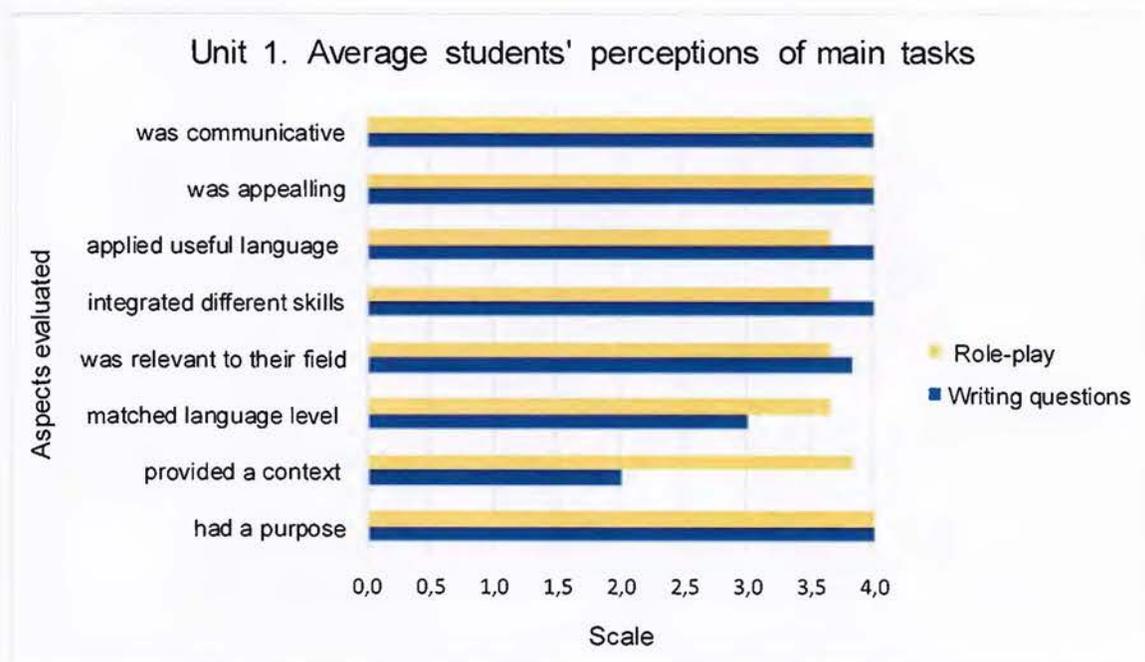


Figure 4. Unit 1. Average students' perceptions of main task compliance with TBLT principles.

The vertical axis indicates the aspects that were evaluated and the horizontal axis shows the scores obtained according to the Likert scale used, in which 1 meant *strongly disagree*, 2 meant *disagree*, 3 *agree*, and 4 *strongly agree*. The graph illustrates that all students strongly agreed that the main tasks were communicative, appealing, and purposeful. Similarly, the other aspects obtained a four or nearly a score of four except for the aspect called *provided a context*, which scored two (*disagree*) and *matched language level* which scored 3 (*agree*) in unit 1. These aspects earned this grade in the *writing questions* task because two students considered that they did not have enough information to carry out the activity more thoroughly; for instance one student said “I think the activity provided some context, but I needed just a little more”. This could have happened due to the fact that formulating polite questions is a complex skill that did not suit the learners’ proficiency level even though formulaic language was given in order to help them structure their questions. In this regard, we are aware of Skehan’s claim (as cited in Willis, 1996), in which he proposed that learners should be exposed to language that is slightly beyond their proficiency level; nonetheless, students needed to practice this structure since asking questions as part of the audience in an international conference was one of their needs and wants (see the Description of needs and wants in chapter I). In spite of this, we can say that in general most of the aspects scored 3 or 4; thus, the tasks seem to have complied with TBLT

characteristics. In addition, other students mentioned that they had enjoyed the activities because they were related to their field of study and enhanced relevant vocabulary and grammar learning, for instance “Yes, statistics have a lot of conferences”, “we learned new useful language and appropriate ways to ask questions in conferences”, and “it was very useful to learn the different questions we can ask” [sic]. This conforms to an essential characteristic of tasks: the importance of resembling real-life language use as it helps learners replicate these experiences outside the classroom (Ellis, 2018).

a.2. Unit 2

The main goal of unit two was to orally present the introduction to a talk about a research project when participating as presenters at conferences. This unit required more oral production from students since they had to deliver an introduction to a talk and describe graphs. To achieve this goal, four main tasks were designed. Figure 5 portrays the students’ average perception of the tasks and the score obtained by each task. As it is shown, all six students considered the tasks to be appealing, which may be due to the fact that this unit had a clear or real goal. According to Skehan (2005), learners get more engaged in tasks that have a clear and real goal, and suit their needs, for this motivates them to complete the task. Moreover, delivering an introduction to a talk was a need that most of our students had.

However, the aspect *matched my language level* obtained the lowest score- (2,8) in the writing an introduction task. We consider that this happened for two main reasons: first, most of the students (4 out of 6) had a low English proficiency level. Second, because of their proficiency level, they lacked the vocabulary and grammar knowledge to meet the linguistic demands that their chosen topics required, which were not studied in the pre-task stage because the unit mostly focused on structuring an introduction and using signposting language in order to help them fulfill the tasks.

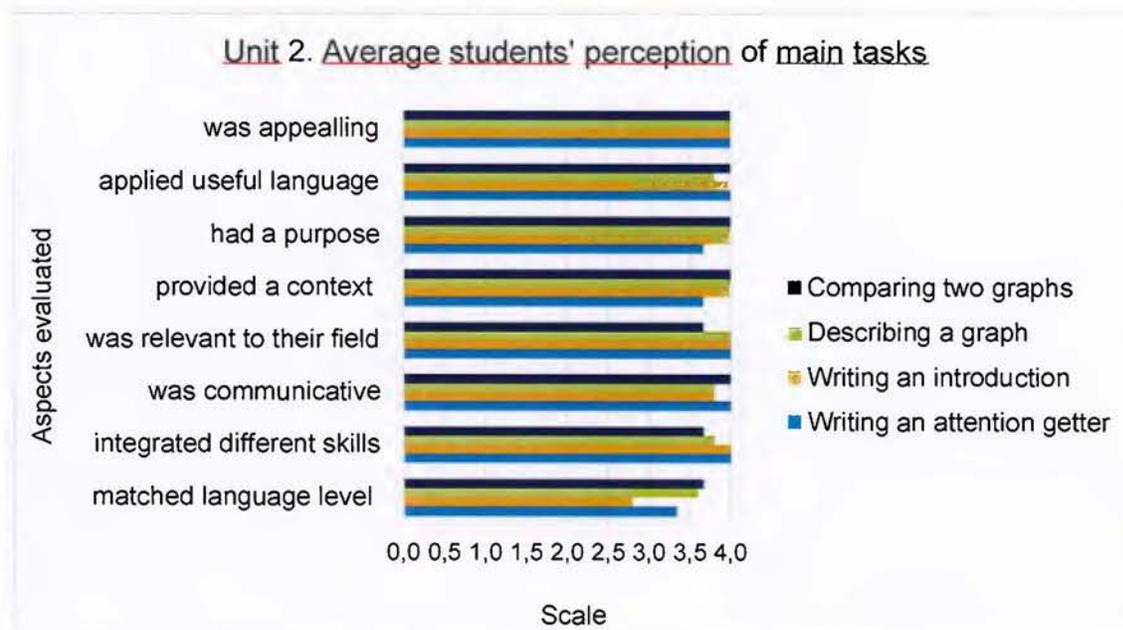


Figure 5. Unit 2. Average students' perceptions of main task compliance with TBLT principles.

Even though learners worked on grammar and specific vocabulary for the topics studied every class, it was not possible to integrate vocabulary from the different areas that students chose for less controlled presentations (especially for their assignments) such as university students' attrition, healthy sleeping habits, and traffic accidents in Costa Rica, among others. On this subject, one student said that it was difficult to translate into English everything he knew because he did not have the linguistic background. Learners had this perception because they probably realized they lacked the language to express themselves; however, they were able to carry out the task successfully by using signposting language and by structuring an introduction in spite of their linguistic limitation. In general, the other aspects scored four or nearly four on average, which indicates that the students agreed or strongly agreed that the tasks complied with the characteristics listed in the instrument. Furthermore, some students stated that they had really liked the activities, especially the ones about graph description due to their usefulness as learners are required to do this kind of activity regularly in their jobs.

a.3. Unit 3

The main goal of this unit was to demonstrate comprehension of abstracts, introductions, and the methods section from research articles by identifying key information and relevant ideas from a text. Three main tasks were designed in order to meet this goal, and each one of them consisted of three stages. First,

students worked in pairs or in groups of three; each group was given a card with a different scenario or a purpose for reading a text. In all of the cases, they had to read a text to carry out a specific investigation at their workplace. Then, students would read the abstract, introduction, or methods section of an article quietly. After that, the learners answered and discussed five comprehension questions related to their assigned text with their partner or partners. Finally, the students worked with another student or group to discuss the content of the article and decide the extent to which the article could provide useful information to support the investigation that they were carrying out at their workplace -according to the scenarios they were given at the beginning of the task (see lesson plans 10, 11, 12 in Appendix R).

Figure 6 summarizes the results obtained from the instruments administered in unit 3. In this unit, most of the students strongly agreed with the idea that the tasks were purposeful, appealing, and relevant to their field. The other aspects evaluated scored three on average, meaning that most students agreed that the main tasks complied with the evaluated aspects. The graph also shows that reading an introduction and the methods section of an article are the tasks that obtained the most positive results. According to the students' opinions, the articles used in these tasks were entertaining and relevant to their field; they also helped them to learn new English vocabulary when reading about applied statistics.

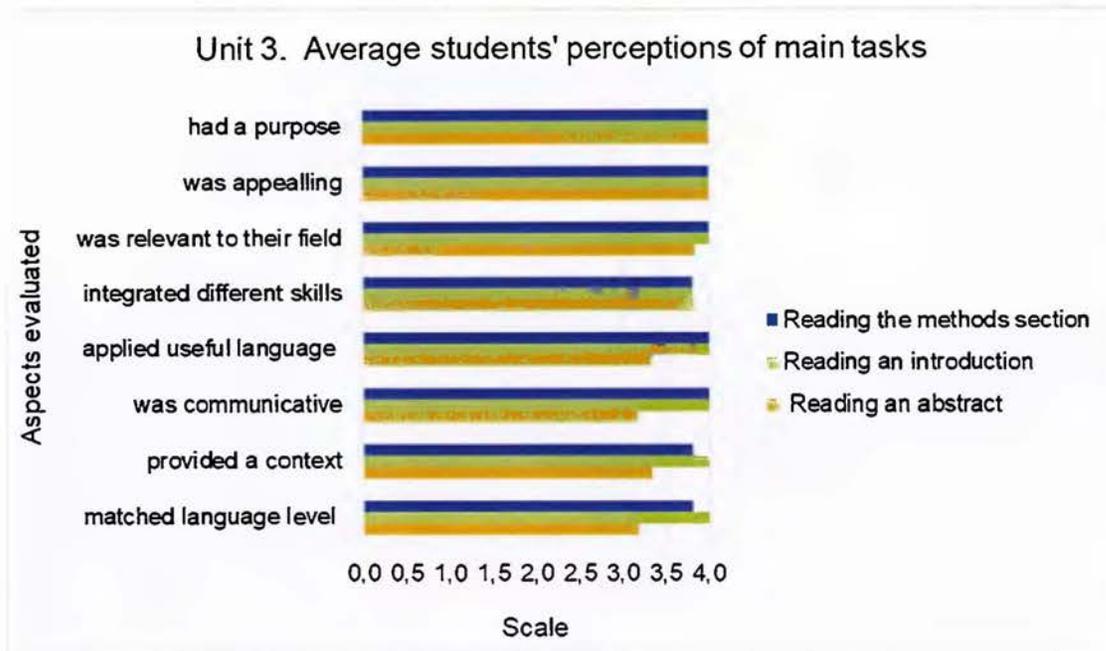


Figure 6. Unit 3. Average students' perceptions of main tasks compliance with TBLT principles.

Concerning the last stage of the task, which involved deciding on the most useful article for a study, students found it engaging and beneficial since it generated a discussion that facilitated learning from the interaction with each other. This stage reflects what Willis and Willis (2007) stated concerning increasing learners' interest in the context and engaging their own opinions on the subject as a way to increase significant learning and interest. In this way, these tasks complied with a major principle of TBLT regarding the use of tasks to promote meaningful and real-life

communication as essential components of second language acquisition (Richards & Rogers, 2001).

We can emphasize that in general students either agreed or strongly agreed that the tasks complied with the evaluated aspects. Regarding the task called “reading an abstract”, the aspects *provided useful language, was communicative, provided a context, and matched my language level* graded the lowest. The reason why this may have happened was that the article that the facilitators used dealt with a model to collect and analyze data in statistics that was unfamiliar to the learners. Even though during the course design stage professors from the statistics major had shared an article with the student-teachers that included that specific model, students were not acquainted with its implementation. Such lack of knowledge limited the interaction to a certain extent; nonetheless, a student stated that “spatial lag model I never used but I learn about different regression model” [sic], and another student commented “in fact, that activity is something that we actually do when we are researching” [sic]. This means that even though some of the students were not familiar with the topic, they were able to carry out the task. To implement the other two main tasks, “reading an introduction” and “reading the methods section”, the facilitators verified in advance the students’ familiarity with the sampling methods, study design, and other statistical concepts used in the articles. For this reason, learners were more involved in the forthcoming tasks,

which increased their interaction. About the “reading an introduction task”, they said “the techniques that we used are similar in this study, sample techniques, and others” [sic], “I loved that it made us discuss the different points of view from us as statisticians, so we also have to put our gained knowledge in practice” [sic].

Concerning the reading methods section they claimed “I liked a lot the articles, they were relevant and entairtain to read” [sic], “I learned about applied statistics techniques in articles”[sic], and “the use of one topic in all the class is a great idea” [sic]. Therefore, learners seemed to be more familiar with the tasks implemented in this unit as they do this type of activities on a daily basis for work and academic reasons. Consequently, using the language to interact and to achieve an outcome (in this case to decide the usefulness of the article to carry out an investigation) meets a basic characteristic of TBLT (Richards & Rogers, 2001).

To have a clearer picture of the students’ perceptions, we have included figure 7, which shows the average result per unit. In general, students either agreed or strongly agreed that the tasks complied with the evaluated aspects. The figure also shows that unit 2 had the highest scores. Learners commented that they had liked the speaking activities used in unit 2 as they provided practice to describe graphs when delivering an oral presentation. Another outstanding result is that almost all the students recognized the relevance of the tasks to their field of study.

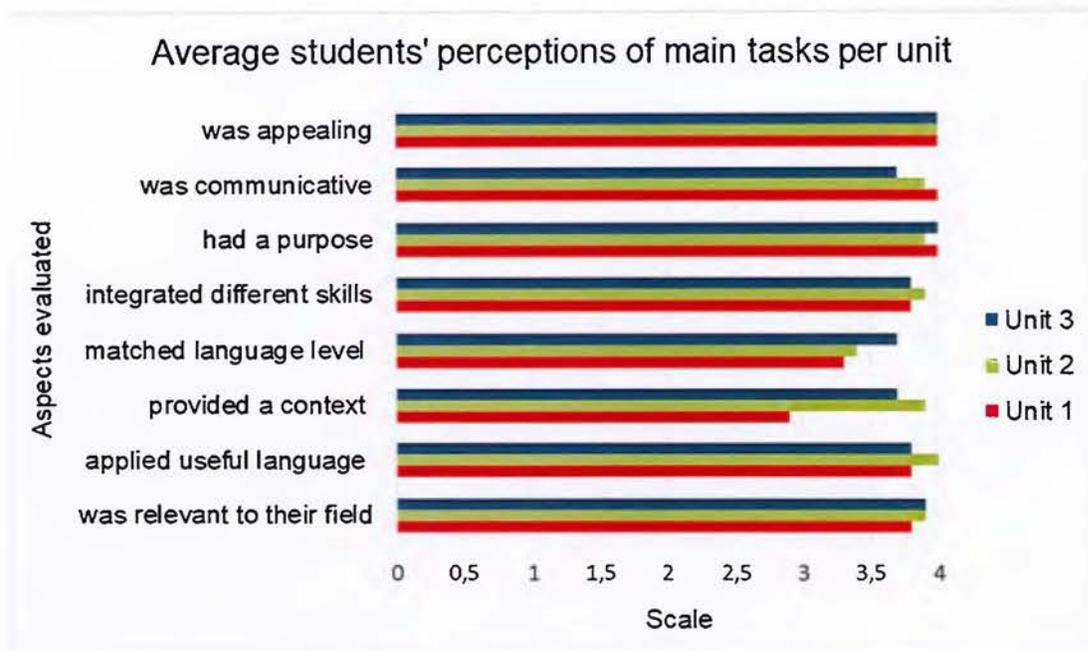


Figure 7. Average students' perceptions of main task compliance with TBLT principles per unit.

The figure also shows that the aspects *provided a context* and *matched my language level* obtained the lowest scores. As it was mentioned in the section "Student's perception regarding main tasks- Unit 1", this happened because two students indicated that they needed more context to carry out the activity, and the "writing questions task" was more challenging for them as it was already stated in the aforementioned section. Furthermore, it is important to remember that since the sample population was very small (six students), any negative or positive insight expressed by the participants would impact the final results significantly.

b. External evaluators' perceptions of main tasks

To obtain reliable results, the practicum supervisors or external evaluators also assessed the main tasks implemented. Three different supervisors participated in the practicum process; each supervisor would observe a session at a time, observing a total number of three classes each.

Figure 8 summarizes the average score obtained in the different tasks implemented in each unit. The vertical axis indicates the aspects evaluated and the horizontal axis shows the scale used in which 4 meant *strongly agree*, 3 meant *agree*, 2 meant *disagree*, and 1 meant *strongly disagree*.

The external evaluators perceived that the most communicative tasks were the ones administered in units 1 and 2. This may have been because the supervisors mentioned they saw the students negotiating meaning in order to accomplish the tasks. Whereas in unit 3, this same aspect obtained a lower score due to the fact that during the "reading an abstract task", the supervisor perceived that two students were not interacting or doing the task together as requested even though they were sitting in pairs.

Similarly, the supervisors considered that the most engaging activities were implemented in unit 2, and the aspects *provided useful language, involved task specific vocabulary, provided a meaningful context, integrated different skills, and helped learners achieve the outcome* gained the highest score in unit 2 as well.

In this unit, students had to write and present an introduction and an attention getter as well as describe graphs; therefore, oral production was more evident when delivering their presentations.

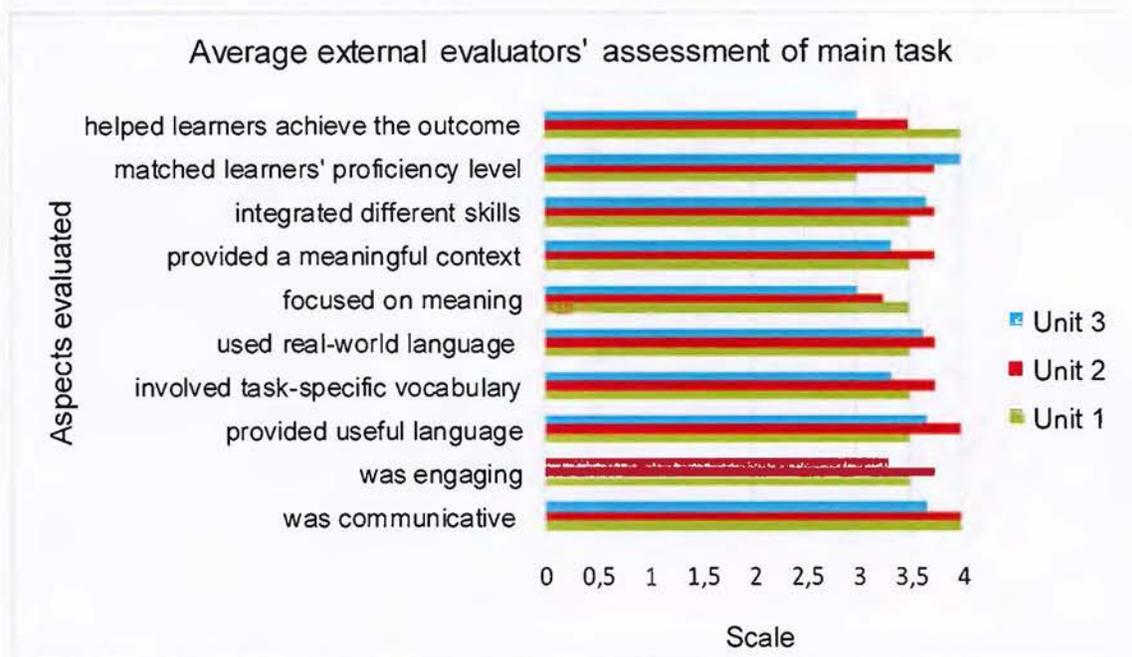


Figure 8. Average supervisors' perception of main tasks compliance with TBLT principles.

In addition, these tasks intended to fulfill the students' needs as revealed in the N.A. carried out during the first semester of 2018; therefore, students probably showed more interest as they were doing an activity that emulated a real-life task that they would like to carry out in the future. Moreover, according to the supervisors, the activities used in unit 3 were the ones that matched the students' language proficiency level the most. This may have happened due to the fact that

the learners showed understanding of the articles used in the task since this population is more used to reading articles in English for research purposes. It is evident that the supervisors either strongly agreed or agreed that the tasks used in every unit complied with the aspects evaluated.

Figure 5 shows that unit 3 obtained the lowest score in the aspect *helped learners achieve the outcome*. This aspect scored 3 (agree) in the reading an abstract task for the same reason explained above. Also, the fact that this task dealt with an unfamiliar topic for the students could have influenced the supervisor's perception. In addition, unit 3 obtained the lowest score in the *aspects focused on meaning and used real-world language*. These scores were obtained in the "reading an abstract" and "reading the methods section" tasks. In the former task, the supervisor rated both the *focused on meaning and use of real-world language* aspects with a 3 (the reasons why this happened have been previously discussed). The latter task earned a 3 score in *encouraged use of real-world language* because it is likely that the supervisor did not see the students negotiating meaning or using real world vocabulary during their interaction. At this point, we need to emphasize that this is just an assumption, as the supervisor did not make any comments regarding this task. In general, the supervisors provided few comments about the tasks they evaluated because they may have been

observing the lessons and evaluating the student-teachers' performance; as a result, it is more difficult to establish the reasons underlying their responses.

Comparing the students' and supervisors' average results, we found several similarities. For example, both students and external evaluators agreed that the tasks in unit 3 matched the learners' language level the most. They also coincided with the idea that the tasks implemented in units 1 and 2 were the most communicative. In the same way, both perceived that the tasks in unit 2 integrated more skills. The students and the supervisors also agreed that the tasks in unit 2 provided the most meaningful contexts, for in these tasks, students had to deliver an introduction and describe graphs. Likewise, both learners and supervisors considered that the tasks in unit 2 provided the most useful language for interaction and main tasks.

The most outstanding difference was that the supervisors agreed that the tasks used in unit 2 were the most engaging with an average score of 3,75 while the learners strongly agreed that all the tasks used in the three units were appealing. The aforementioned word was used as a possible synonym for *engaging* to facilitate students' understanding of the term in the instrument they were asked to complete.

c. Students' performance in each unit regarding task achievement

In order to verify students' achievement when performing the tasks implemented in class, several tests and quizzes were administered throughout the course as part of its formal evaluation. These evaluations resembled real-life situations and functions practiced in every unit. Learners carried out tasks that incorporated vocabulary, grammatical structures, fixed expressions, language functions and strategies, among others studied in every unit. In the same way, these tasks were designed in order to determine achievement of the goals stated for each unit. Table 1 reveals the results from the tasks applied during and at the end of each unit per student; each learner was assigned a number. As seen in the table, students 2 and 6 were the most proficient learners in the group based on their results since their performance was more consistent than the one from their partners. The table shows the students with a moderate and low proficiency level.

During unit 1, the learners completed a speaking test in which they needed to interact with other people during a coffee break at an international conference. This speaking test related directly to the main task carried out in lesson 4 (see Appendix R) in which learners pretended to be at a statistics conference and practiced networking and introducing themselves. This test related to the second goal of unit 1: to interact in English effectively with participants at international conferences.

Table 8

Students' Performance per Unit and Task

Students	Unit 1		Unit 2	Units 1&2		Unit 3
	Speaking test 1	Quiz 2	Speaking test 2	Conference simulation	Quiz 3	Reading comprehension test
#1	90	100	90	85	86	88
#2	90	100	96	90	100	95
#3	90	80	85	86	90	85
#4	85	90	74	83	55	78
#5	85	80	85	84	80	85
#6	90	90	93	89	90	90

It is worth saying that students performed satisfactorily as they obtained an average result of 88,3 in this speaking test as shown in Figure 9 with a standard deviation of 2.58. Students 4 and 5 obtained the lowest results due to their low proficiency level as their use of vocabulary and content was limited. Despite the fact that they made basic errors such as *"I from is Costa Rica"*, *"I'm an student"* and *"It not is a different project"* [sic], they were able to interact with their partners and introduce themselves.

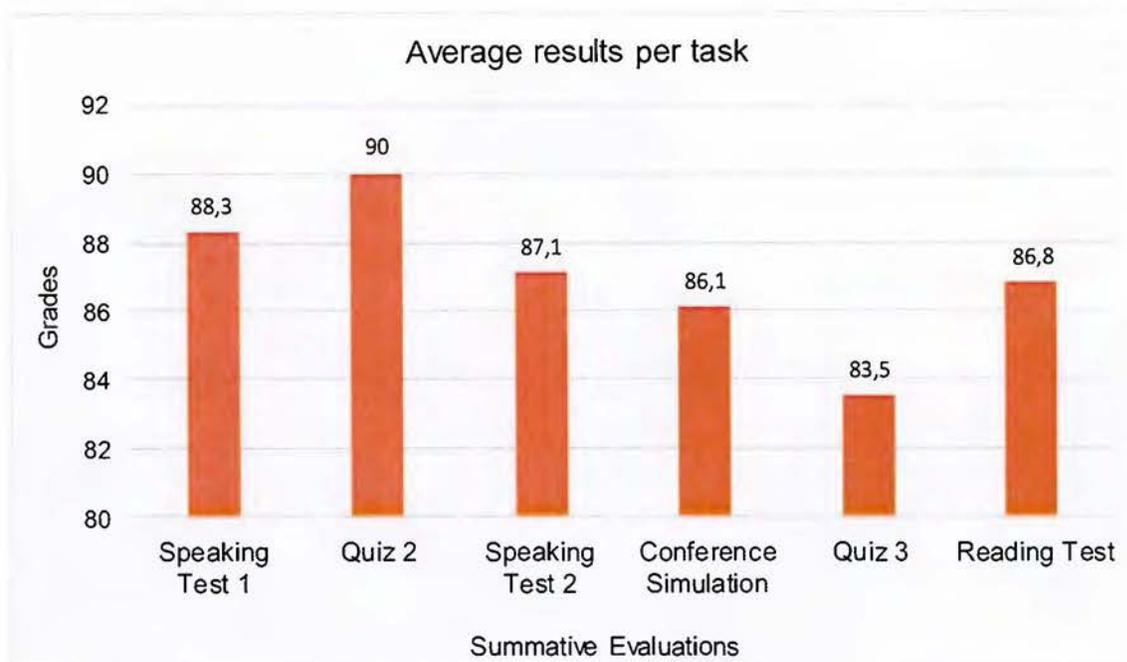


Figure 9. Average results of students' performance per task.

In unit 2, students carried out a quiz, in which they listened to an introduction to a talk in order to identify its moves and apply the strategy *listening for specific details*, and another speaking test in which learners had to deliver an introduction to a talk in their field. The quiz 2 matched the main tasks implemented in lessons 2, 3 and 6 (see Appendix R) which related to listening to specific details, types of attention getters and moves of an introduction to a talk. The speaking test 2 related to the main tasks completed in lessons 6 and 7 (see Appendix R) regarding presentation strategies, types of attention getters, and delivering an introduction

about a topic within the students' field. The learners performed well in both tasks showing an average grade of 90 in quiz 2 with a standard deviation of 8.94 and an average of 87,1 in the speaking test 2 with a standard deviation of 7.78. Regarding quiz 2, students were able to identify the moves used by the speaker in the introduction to a talk but had difficulty listening for specific details. It is worth mentioning that student 4 had the lowest proficiency level of the group according to the diagnostic test administered before the course started. This may have caused his low performance in the tests, as he evidenced pronunciation and grammatical mistakes, and a more limited content in comparison with his classmates. The most common mistakes made by students in the speaking test 2 were related to the use of the article "a" and "an" with jobs, for example "*I'm statistician*" and "*I'm student of statistics*", and subject-verb agreement such as "*people is injured*" [sic]. In addition, learners had trouble pronouncing the /θ/ sound in words such as *thousand*, *something* and *three*, as well as the /s/ sound in the initial position as in *start* and *student*. Even though students made mistakes regarding structure and pronunciation, they were able to use signposting language, delivery strategies, and attention getters properly as well as organize their introductions based on the moves studied in units 1 and 2.

At the end of unit 2, students performed a conference simulation that involved elements from units 1 and 2. For instance, learners pretended they were

speakers at a conference of statistics, so they had to interact with other participants at a break, present a section of their talk, and ask questions after their partners' presentations. This simulation encompassed the main tasks implemented in lessons 4, 5, 6, 7, 8 and 9 (see Appendix R). The learners practiced networking, asking questions during a question-and-answer session, delivering an introduction, and describing a graph. Even though this task was one of the most challenging ones since it included most contents studied previously, the main tasks implemented in the aforementioned lessons helped learners perform them successfully, obtaining an average result of 86,1 with a standard deviation of 2.78. Therefore, students accomplished the test satisfactorily based on their results, but they made common mistakes related to subject-verb agreement ("*this don't happen in Costa Rica*", "*it have the same behavior*" and "*when we was children*" [sic]) as well as pronunciation (the /ɔ/ sound in "*August*" and "*authors*", and /ʌ/ in "*public*"). It is also relevant to point out that students made use of signposting language, delivery strategies, attention getters, moves of a talk, and grammar structures such as comparative and superlative forms as well as adverbs and key vocabulary (peak, drop, increase, and gradual decline, among others) to describe graphs. As stated by Richards and Rodgers (2001), learners made use of fixed expressions and lexical units that helped them interact and carry out the task. In addition, students showed themselves more confident and

comfortable when interacting with each other and presenting in front of an audience. To illustrate, students even included more information in their presentations than the one requested in the guidelines (see Appendix P) by adding a description of their population, a variety of graphs, the type of sampling technique they used in their study and conclusions.

Regarding unit 3, learners took quiz 3 and a reading comprehension test, which was a little more extensive than the quiz. In both of them, the students had to put into practice the reading strategies that were taught in class and identify the moves in an abstract, introduction, and methods section. These evaluations required learners to know the structure and common signposting language used in these sections since this would help students improve their reading skills. Quiz 3 was related to the main tasks and activities implemented in lessons 10 and 11 (see Appendix R). Likewise, the reading comprehension test was similar to the ones performed in lessons 10, 11, and 12 (see Appendix R). Table 1 shows the grades that the students earned in both tests. Figure 9 shows that the average score on the quiz was 83,5 with a standard deviation of 15.41 and an average of 86,8 on the test with a standard deviation of 5.7. Both percentages are satisfactorily, as they indicate the extent to which the goals and objectives proposed for these tasks were attained. Interestingly, student 4 obtained the lowest score in the quiz (55); however, he improved significantly in the reading test. This student is the same

whose proficiency level was low according to the diagnostic test. Concerning quiz 3, the most common issues students had were related to identifying the research territory in an introduction of a research article. This is the opening move of an introduction in which the writer may mention information from previous research and highlight the general research area and its relevance. About the reading comprehension test, learners had difficulty searching for the sample size and the variables used in the methodology. It is important to mention that students' answers were not assessed in terms of mechanics such as spelling and punctuation because these elements were not studied in the course, and the focus of both tests was to assess students' understanding of the moves and the information in the texts.

In general, students' results in the corresponding evaluations reveal task achievement in each unit as they were able to perform the tasks satisfactorily. Even though several evaluations of students 4 and 5 were lower than their partners', their overall performance was acceptable as they showed improvement in their skills throughout the course. In addition, learners received feedback after each evaluation to enhance their performance and skills in each task. We consider that some aspects that contributed to their progress included main task implementation and its compliment with TBLT principles, which evidenced careful planning –another principle of TBLT according to Willis and Willis (2007). In brief,

after completing the three units, most of the students are now able to network with other conference participants, partially deliver a talk at a conference of statistics, and have a better comprehension of abstracts, introductions, and methods sections from research articles.

D. Conclusions

Using TBLT in an ESP course becomes a suitable option as both approaches pursue similar objectives in terms of fulfilling students' needs in real life settings and interactions. Therefore, this study sought to identify and assess key TBLT principles that should be followed when implementing tasks in an ESP course in order to help learners improve their skills and achieve both tasks and course objectives.

Task design and implementation are key factors to help students achieve an outcome and to meet the course goals. Based on this premise, it can be concluded that the main tasks implemented complied with the principles of purposefulness, communicativeness, appeal, relevance for the students' field, skill integration, and useful language application according to both the students' and the supervisors' perceptions.

Similarly, the principles of providing a context and matching the students' language level were also met at a lesser level as there always seemed to be a gap between the students' proficiency level and their needs and wants.

Most of the students achieved the goals of the units and objectives since most test results were positive, and students' performance improved through every unit. Learners were able to interact with authentic listening and reading material that addressed their present and future needs as well as their wants and lacks.

Tests and quizzes used to evaluate learners intended to resemble the main tasks implemented in the course as well as real-life situations. These tasks sought to incorporate aspects related to the students' performance needed to determine task achievement. This formal assessment helped students to become aware of strengths and weaknesses when interacting and presenting in front of an audience.

E. Recommendations

The following recommendations are provided for future practicum students and research studies. Constant communication must be established with the learners in order to ensure an accurate choice of topics. Therefore, it is pertinent to ask students about the relevance of certain contents in their fields before planning lessons in order to make sure learners are familiar with the subject. As stated by Willis and Willis (2007) lessons and tasks should comply with a TBLT principle, which states that careful planning must precede task design as several linguistic and topic aspects should be considered. This aspect also encourages learners to perform tasks more effectively.

It is also important to ensure that the tasks designed incorporate both sufficient and realistic contexts related to the students' professional field so that there is enough background information to carry out the task more naturally. Therefore, future practicum students and researchers working with a similar population may look for more stakeholders and experts in the field to receive more feedback and guidance regarding texts, materials and topics.

Main task design and implementation should follow TBLT principles; consequently, it is useful to have other teachers or supervisors examine the designed tasks before their implementation so that these instructors can provide a different viewpoint of the tasks, suggest changes, and offer advice for their future implementation. However, it is recommended to dispense with the supervisors' observations, as they have to focus on the student-teacher performance, which limits their perceptions regarding how students perform the tasks.

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Appendix A: Questions for Stakeholders

Guide for semi-structured interviews

The purpose of the following questions is to collect the necessary information to design an English course for statistics professors and students at the Universidad de Costa Rica, based on their needs. The information collected will be strictly confidential.

A. Questions for contact person

1. What are the main tasks performed in the field of statistics?
2. What is the profile of a statistics professor?
3. What is the profile of a statistics student?
4. What are your expectations about having professors and students learning English together?
5. What are the priority tasks that require the use of English in the statistics field?
6. What is the availability of the participants to attend the classes?
7. What facilities can the School of Statistics provide for teaching this course?
8. Are there any special considerations related to infrastructure or equipment or the like to be taken into account for the development of the course?
9. Could you provide bibliographical references and/or information to contact experts in the field to develop this English course?

B. Questions for specialists and professors

1. In what kind of situations do professionals in statistics need to use English in their work field?
2. In what areas do most statisticians work after graduating?
3. What is the professional profile of a statistician?
4. Do statisticians have to read in English after graduating? What kind of documents do they have to read? What topics might they be related to?

5. Do statisticians have to use their listening comprehension ability in English after graduating? In what kind of situations or contexts? What are some of the topics they would listen to?
6. Do statisticians have to speak in English in the workplace? What topics would they need to speak about? In what situations/contexts would they have to speak?
7. Do statisticians have to write in English in their workplace? What kind of documents would they have to write?

C. Questions for students

1. What do you consider your proficiency level of English to be?
2. How important is English in your major or program?
3. What activities do you usually do that require English?
4. In a future project or job, what activities will require the use of English? Provide concrete examples.
5. Which skill do you consider more challenging (listening, speaking, reading, and writing)?
6. Which skill do you consider less challenging (listening, speaking, reading, and writing)?

D. Questions for administrative staff

1. What do you consider your proficiency level of English to be?
2. How important is English in your administrative work?
3. What activities do you usually do that require English? Provide concrete examples.
4. Which skill do you consider more challenging (listening, speaking, reading, and writing)?
5. Which skill do you consider less challenging (listening, speaking, reading, and writing)?

Appendix B: Questionnaire for participants

University of Costa Rica

School of Modern Languages

Student code: _____

M.A. Program in Teaching English as a Foreign Language

.....

Needs Analysis

The purpose of the following questionnaire is to collect the necessary information to design an English course for statistics professors and students at the Universidad de Costa Rica, based on your needs. The information collected will be strictly confidential.

This questionnaire is one of the various steps of the process to participate in an ESP (English for Specific Purposes) course for statisticians. The information collected in this questionnaire is going to be vital to design and develop this course. It is important for you to know that there is no risk involved for participating in this course or during the data collection process. In addition, you have the opportunity to study an English course specially designed to suit your necessities in your professional field as a benefit for you participation.

The instructors in charge are Teresita Calderón and Sandra Rojas practicum students of the master's program in Teaching English as a Foreign Language at the University of Costa Rica.

In case you need more information, please send an email to:
cursodeingles.estadisticos@gmail.com

I. Part. Personal Information

The purpose of this section is collect general data of the participants and contact information if necessary.

1. Name: _____
2. E-mail address you will use to receive information about the English course:

3. Phone number: _____
4. Age: _____
5. Latest academic degree: _____

II. Part. Present Situation Analysis

The purpose of this section is collect data related to your tasks in your professional field, their relation with the English language, and your personal perception about your English level.

1. Indicate the areas of practical application of the statistics that most applies to your daily life. Mark (x) the option(s) that apply to you.

Design of questionnaires ___ Design of databases ___ Give classes ___
Sample designs ___

2. Have you studied English before? Yes ___ No ___ (If **Not**, skip questions 3 and 4)

3. If you answered **yes**, where have you studied English previously?

4. How long have you studied English?

5. How often do you do the following activities **in English**? Check (X) the most appropriate option for each situation (one option per line).

Task in English	Always	Sometimes	Rarely	Never
a. Read articles and journals				
b. Read books				
c. Write reports				
d. Write abstracts				
e. Write articles				
f. Deliver presentations				
g. Attend conferences and lectures				
h. Read manuals				
i. Explain procedures orally				
j. Explain processes in written form				
k. Reply to e-mails				
l. Take quizzes or exams				
m. Interact with native speakers				
n. Watch videos				
o. Use software such as SPSS, STATA				
p. Explain sampling results orally				
q. Explain sampling results in written form				
r. Participate in job interviews				

Other:

6. How often do you use the following skills **in English**? Check (X) the most appropriate option for each one (one option per line).

	Always	Sometimes	Rarely	Never
Listening				
Speaking				
Reading				
Writing				

7. Which level do you perceive you are at each skill? Check (X) one per skill.

	Beginner	Low-intermediate	Intermediate	Advanced
Speaking				
Listening				
Reading				
Writing				

III. Part. Future Work Needs

The purpose of this section is to collect data about the role of the English language in the tasks of your professional future.

1. Whom do you think you will interact **in English** with? Check (X) one option.

Native speakers ___ Non-native speakers ___ Both ___

2. Indicate how important the following English skills are in your work field or future work field. Check (✓) the most appropriate option for each skill.

	Very important	Important	Somewhat important	Not important at all
Listening				
Speaking				
Reading				
Writing				

3. Which are four of the most important activities you do or will do **in English** in your work field? Please mention their frequency. (Example. I attend conferences once a year.)

a. _____

b. _____

c. _____

d.

IV. Part. Learning preferences

The purpose of this section is to collect data about activities related to your preferences during the learning process.

1. What type of interaction do you prefer to have in the future English course? Check (X) the options you prefer. (More than one option is possible)

Individual ___ Pairs ___ Group ___ Whole class ___

2. What type of class activities do you feel more comfortable with? Check (X) the options you prefer. (More than one option is possible)

<input type="checkbox"/> Games related to the tasks needed	<input type="checkbox"/> Class discussions
<input type="checkbox"/> Problem-solving	<input type="checkbox"/> Role-plays
<input type="checkbox"/> Conversations	<input type="checkbox"/> Oral presentations
<input type="checkbox"/> Decision-making tasks	<input type="checkbox"/> Class discussions

Others: _____

V. Part. Course expectations

The purpose of this section is to collect information related to your expectations about the future English course to eventually be taken into consideration.

1. Which skills would you like to improve in this course? Check (X) the options you consider relevant. (More than one option is possible)

Listening	Speaking	Reading	Writing

2. Mention at least four things you would like to learn how to do in English that are essential for your job. For example, "I would like to learn how to present results of projects orally."

3. Mention the topics or contents of the field you consider more suitable for this course. (Example: "I would like to learn about analytics in software development.")

Thanks for your collaboration!

Appendix C: Diagnostic Test

University of Costa Rica
School of Modern Languages
M.A. Program in Teaching English as a Foreign Language

Diagnostic Test
English for Statisticians

Total points: 80 pts

Time allotted: 1 hour and 50 minutes Points obtained: _____ Score: _____

Name: _____ Date: _____

INSTRUCCIONES GENERALES

1. Lea las instrucciones cuidadosamente.
2. El examen consiste de 4 secciones: comprensión auditiva, comprensión de lectura, producción escrita y producción oral.
3. Escriba de manera ordenada y clara.
4. Utilice solamente lapicero azul o negro.
5. El uso de teléfonos celulares o diccionarios no está permitido durante la prueba.
6. Si tiene preguntas, levante la mano.

Listening Section (20 points)

A. Instructions: You will listen to an interview between a reporter and professor Gautam Shakabordey from the Oklahoma States University. First, read the questions and options. Then, listen and **circle** the best option. You will listen to the recording three times. (5 points)

1. According to the audio, professor Gautam Shakabordey explains the differences between _____.
 - a. data science and analytics
 - b. analytics and technical knowledge
 - c. technical knowledge and knowledge in programming
2. According to Mr. Shakabordey, visualizing and modeling are backgrounds related to _____.
 - a. analytics
 - b. data science
 - c. programming
3. According to the speaker, without training in programming, it is hard to work in _____.
 - a. analytics
 - b. engineering
 - c. data science
4. Mr. Shakabordey recommends people interested in those areas to _____.
 - a. be a fulltime student
 - b. work at Oklahoma University
 - c. take courses at the university
5. Oklahoma States offers programs _____.
 - a. for professionals in the field
 - b. for students from other universities
 - c. for full time students and working professionals

Audio taken from: <https://www.youtube.com/watch?v=mY4QG8373G4&list=PLeGR6MwDm3Hd3CxRGo-cNuZ50R-1aGSE&index=12>

B. Instructions: You will listen to a tutorial about types of sampling methods as part of a course. First, read the outline. Then, listen and **complete** it with the correct answer. You will listen to the recording three times. (5 points)

A good sample is one that is (1) _____ of the entire population and it gives each thing an (2) _____ chance of being chosen.

Types of *unbiased sample (3) _____ sampling
(4) _____ sampling
(5) _____ sampling

*unbiased: the expected value of our statistic equals the parameter.

Audio taken from <https://www.youtube.com/watch?v=pTui57uXWIk>

C. Instructions: A professor is explaining how to do a One-Sample T-Test.

C.1. First, read the questions. Then, listen and **take notes** to answer the questions. You will listen to the recording three times. (3 pts)

1. What are two different variables used in the example?

a.

b.

2. What question does the test try to answer?

C.2. First, read the steps to carry out the One Sample T-test. Then, listen and **complete** the missing steps. (2pts)

- a. Click on analyze.
- b. Go to compare means.
- c. Click on One sample T-test
- d. Find the different variable on the left window
- e. Find the test variable and the test value icons
- f. _____ over to test variable.
- g. _____ you are going to compare.
- h. Click Ok to compare sample average to population mean 1.5

D. Instructions: You will listen to a tutorial about how to use NCSS statistical software. First, read the options. Then, listen and **circle T** if the statement is TRUE or **F** if the statement is FALSE. You will listen to the audio three times. (5pts)

- | | | |
|---|---|---|
| 1. The purpose of the analysis is to create a model to predict a male's weight based on his height. | T | F |
| 2. NCCSS exports some file formats and some statistical data. | T | F |
| 3. A simple input screen displays all the options, which facilitates setting up the analysis. | T | F |
| 4. NCSS provides sufficient documentation to support each procedure. | T | F |
| 5. The regression estimation section states the model we can use to create the plots. | T | F |

Audio taken from: https://www.youtube.com/results?search_query=ncss+statistical+softwar

Reading Section (20 points)

A. Instructions: Read the ad and complete the chart based on the information provided.

Conference dates:	
Place:	
Contact person's name:	First name: _____ Last name: _____
The last date to send a proposals:	

B. Instructions: You received an email. Read it carefully and answer the following questions.

1. What is the email about?

2. What does YS-ISI stand for?

3. Where is the activity going to take place?

4. What is the purpose of the event?

5. What information do people have to send if they are interested in participating as speakers?

C. Instructions: Read the following section from the book “Essential Medical Statistics” as part of a new course you are taking and answer the following questions.

1. What role does statistics play in medical investigations? It provides _____.
 - a. wide and formal exchange variations
 - b. organized information on a formal basis
 - c. an exchange of anecdotes and personal experience

2. What is the goal of investigating morbidity in a job through statistics?
 - a. Assess general population indicators
 - b. Evaluate real indicators of health risks
 - c. Observe if it is associated with a particular effect

3. Why may a heavy drinker die old whereas a young non-drinker might die young? Because individuals react _____.
 - a. differently to stimulus
 - b. predictably to exposure
 - c. similarly to a given stimulus

4. In the last paragraph, the author implies that _____.
 - a. statistics determines causes and effects
 - b. a poorly designed study may alter its results
 - c. the vaccine study considered all the variants

5. What is the most appropriate summary for the previous extract?
 - a. Statistics apply to investigating morbidity in medicine
 - b. Statistics assess and analyze variability in medical research
 - c. Statistics interpret given stimulus and anecdotes in medical studies

D. Instructions: The box below contains a short article, titled “**Faulty Statistics Muddy fMRI Results.**” Paragraphs from A to B are disorganized. Reorganize the paragraphs in logical order using numbers from 1 to 5.

- a) _____ Eklund and colleagues compiled publicly available resting-state fMRI data from nearly 500 healthy controls. The researchers randomly assigned some of the subjects to a control group and others to an “experimental” group. Then they fed the data into one of three commonly used software packages (SPM, FSL, and AFNI) thousands of times, *ArsTechnica* reported.
- b) _____ “Though fMRI is 25 years old, surprisingly its most common statistical methods have not been validated using real data,” study coauthor Anders Eklund of Linköping University, in Sweden, told *Wired*.
- c) _____ Functional magnetic resonance imaging (fMRI) is widely used in neuroscience. But according to a recent analysis by researchers from Massachusetts General Hospital in Boston, one of the most commonly used software packages for fMRI data generates false-positive rates as high as 70 percent. The analysis calls some 40,000 studies into question, the researchers reported last week (June 28) in *PNAS*.
- d) _____ In addition to finding a startlingly high false-positive rate, the researchers found a bug in the AFNI software package. When they used a debugged version of the software, it reduced false positives by more than 10 percent, according to *ArsTechnica*. Most of the data from studies that used the faulty software isn’t available, however, so the data can’t easily be reanalyzed, the researchers noted in their paper.
- e) _____ The imaging method divides the brain up into small units called voxels, in which brain activity is measured. Then the software sorts through these voxels and looks for “clusters” with similar activity.

Taken from: <https://www.the-scientist.com/?articles.view/articleNo/46484/title/Faulty-Statistics-Muddy-fMRI-Results/>

Reading for Part A

**Education, Research, Humanities,
and Statistics International
Conference**

27th to 29th April 2018
Washington DC, DC, United States of America

Website: <http://www.advenaworld.com/education-business-social-sciences.html>

Contact person: Eric Charles Schwartz

The ERHS18 Conference will provide the ideal opportunity to meet academics and experts in education, statistics, psychology, social sciences, humanities and public policy; share your experience and research findings to receive quality feedback.

Organized by: Advena World LLC

Deadline for abstracts/proposals: 13th April 2018

Check the [event website](#) for more details.

Reading for Part B

From: IUSSP <iussp@iussp.org>

Reply to: IUSSP <iussp@iussp.org>

Call for Speakers for YS-ISI Invited Paper Sessions (IPS)
62nd ISI World Statistics Congress 2019
Kuala Lumpur, Malaysia, 18-23 August 2019

- Deadline for applications: 20 April 2018

The YS-ISI (young statisticians' group in International Statistical Institute) is pleased to announce that it will propose Invited Paper Sessions (IPS) on the topics 'Statistical Computing and Data Visualization' and 'Statistics' for the 62nd ISI World Statistics Congress 2019, Aug 18-23, 2019, Kuala Lumpur, Malaysia (<http://www.isi2019.org>). The IPS are central to the success of the Congress and therefore the ISI tries to ensure that the IPS are of high quality. The above sessions have been proposed keeping this in mind and are targeted towards early career statisticians who would benefit from knowledge regarding the best practices in data visualization and innovative applications of statistics in the areas of pattern recognition.

The YS-ISI invites applications from young statisticians interested in delivering a talk in any one of above sessions. Interested speakers are requested to contact the Chair of the YS-ISI, Han-Ming Wu, at hmwu@gm.ntpu.edu.tw with the following information: title of talk, name of speaker, and a short description of the talk. To ensure full consideration, please submit your application by 20th April 2018. As in previous Congresses, each IPS session will normally have 3 to 4 speakers and a discussant, and an approximate duration of 100 minutes or 120 minutes. For further information about YS-ISI, please visit <http://www.y-s-i.org/>.

Reading for Part C

Essential Medical Statistics

Statistics has a central role in medical investigations. It provides a way of organizing information on a wider and more formal basis than relying on the exchange of anecdotes and personal experience. For example, not only does blood pressure differ from person to person, but in the same person, it also varies from day to day and from hour to hour. It is the interpretation of data in the presence of such variability that lies at the heart of statistics. Thus, in investigating morbidity associated with a particular stressful occupation, statistical methods would be needed to assess whether an observed average blood pressure above that of the general population could simply be due to chance variations or whether it represents a real indication of an occupational health risk.

Variability can also arise unpredictably (randomly) within a population. Individuals do not all react in the same way to a given stimulus. Thus, although smoking and heavy drinking are in general bad for the health, we may hear of a heavy smoker and drinker living to healthy old age, whereas a non-smoker may die young. As another example, consider the evaluation of a new vaccine. Individuals vary both in their responsiveness to vaccines and in their susceptibility and exposure to disease. Not only will some people who are unvaccinated escape infection, but also a number of those who are vaccinated may contract the disease. What can be concluded if the proportion of people free from the disease is greater among the vaccinated group than among the unvaccinated?

How effective is the vaccine? Could the apparent effect just be due to chance? Or, was there some bias in the way people were selected for vaccination, for example were they of different ages or social class. This example illustrates that the usefulness of statistics is not confined to the analysis of results. It also has a role to play in the design and conduct of a study.

Adapted from Kirkwood, B. & Sterne, J. (2003). *Essential Medical Statistics*. Oxford: Blackwell Publishing.

Writing Task Rubric

Name: _____		Total points _____		
Criteria	Accomplished (4pts)	Competent (3 pts)	Developing (2 pts)	Beginning (1 pt.)
Mechanics	Highly effective use of conventions. Minor errors in terms of mechanics and format.	Generally effective use of conventions. Some errors in terms of mechanics and format.	Somewhat effective use of conventions. Frequent errors in mechanics and format.	Ineffective use of conventions. Numerous errors in mechanics and format.
Grammar usage	Effective control of structures: Grammatical constructions and tense.	Good control of structures: Grammatical constructions and tense.	Basic control of structures: Grammatical constructions and tense that distract the reader.	Little or no control of structures: Grammatical constructions and tense, which interfere with comprehension.
Organization and cohesion	Clear and easy to follow. Effective organization of ideas. Wide range of linking devices used accurately.	Generally clear and able to follow. Appropriate organization of ideas. Good range of linking devices attempted.	Lacks clarity and difficult to follow. Poor organization of ideas. Linking devices used, but not always accurately.	Unclear and impossible to follow. Inaccurate organization of ideas. Linking devices used inaccurately.
Vocabulary	Effective vocabulary usage. Accurate word choice. Wide range of vocabulary.	Generally appropriate vocabulary usage. Appropriate word choice. Adequate range of vocabulary.	Average vocabulary usage. Frequent word choice errors. Moderate range of vocabulary.	Basic vocabulary usage. Inadequate word choice. Limited range of vocabulary.
Task Compliance	Completely addresses all aspects of the writing assignment.	Generally addresses the writing assignment, but may not fully develop all parts of the assignment.	Partially addresses a part of the writing assignment, but generally writes about the topic and does not address the assignment directly.	May write within the topic, but no evidence of addressing the writing assignment itself.

Adapted from

Jacobs, H.L., Zingraf, S., Wormuth, D., Hartfiel, V., & Hughey, J. (1981). *Testing ESL compositions: A practical approach*. Rowley, MA: Newbury House.

Ferris, D., & Hedgcock, J. S. (1998). *Teaching ESL composition: Purpose, process, and practice*. Mahwah, NJ: Lawrence Erlbaum.

O' Malley, J. M., & Valdez Pierce, L. (1996). *Authentic assessment for English learners*. Addison Wesley Publishing Company.

Pölzleitner, E., & Bauer, L. (2013). *Assessment Scale for Written Work*. In *Writing Scales* compiled by Lis Pölzleitner. Retrieved from <http://www.polzleitner.com/epep/Assessment/NewAssessmentScales/all-three-files.pdf>

[Unknown source]

Speaking Section (20 points)

Guide for oral test

The test administrator should follow these steps:

I. **Warm-up:** to put the student at ease

- How are you today?
- What's your name?
- Where do you live?
- Tell me a little about yourself.

II. **Level check:** to determine the student's level

- Tell me about your family
- What are your hobbies?
- What do you do in your free time?

III. Situation: to determine learner's proficiency level and confirm it, the test administrator gives the student an ESP situation from below. If s/he can perform well, the test administrator can ask him/her to perform another situation of a higher level.

IV. Wind down: to help the student relax with some easy questions. Tell the student that it is the end of the interview.

- What are you going to do after the test?
- What are your plans for this afternoon/tonight?

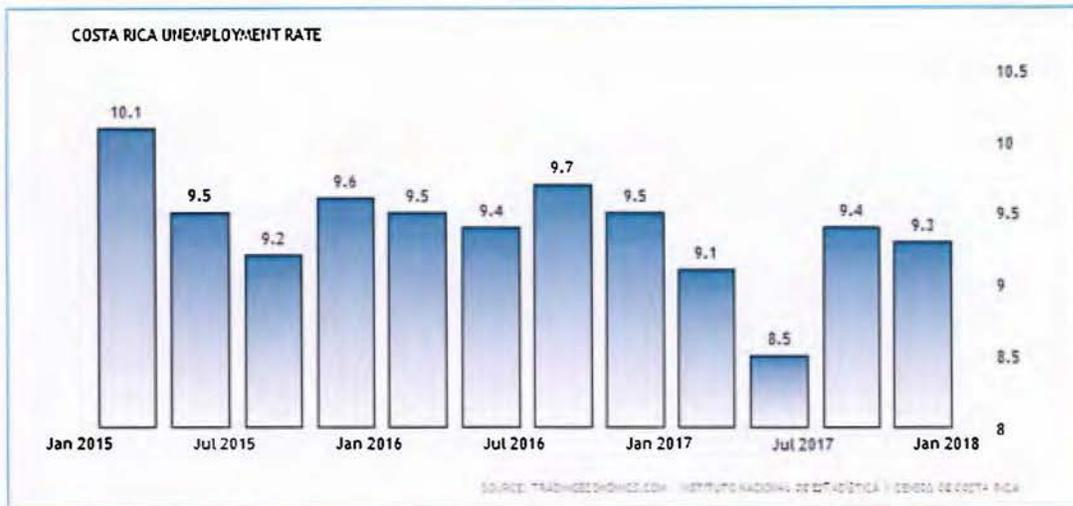
Adapted from

Coombe, C., Folse, K. & Hubble, N. (2007). *A practical guide to assessing English language learners*. Michigan: The University of Michigan Press.

SITUATION 1:

Instructions: The minister of labor asked your organization to conduct a study on unemployment rates. At this moment, you are presenting the preliminary results to a committee. Do the following:

- Introduce yourself and the institution you work at.
- Explain the graph below about Costa Rica unemployment rate since 2015.



Taken from: <https://tradingeconomics.com/costa-rica/unemployment-rate>

SITUATION 2:

Instructions: You are attending an international conference in the US. The topic of the presentation is **Bayesian Inference: Metropolis-Hasting Samplings**. At the end of the presentation, some time is devoted to answer questions from the audience. Ask the speaker **FIVE questions** about the investigation.

SITUATION 3:

Instructions: You are a speaker at an international conference in Canada. After presenting your investigation, some time is devoted to answer questions from the audience. A participant asks you the following question. Respond by providing as much information as possible. **You may use information about an investigation you have done or you have read about before.**

Could you explain the sampling technique that you used in this investigation?

SITUATION 4:

Instructions: You are a speaker at an international conference. The topic of your presentation is “Pros and Cons of Random Sampling Techniques”. Imagine you are presenting now.

- Provide a brief introduction to your presentation.
- Name three advantages and three disadvantages of non-random sampling techniques.

ORAL ASSESSMENT RUBRIC

Name: _____ Total points 20 pts. Obt. Points _____ Grade _____

	Meets expectations (4)	Adequate (3)	Needs improvement (2)	Inadequate (1)	SCORE
Task	The student carries out the task thoroughly by complying with most of the assigned requirements.	The student carries out some of the assigned requirements.	The student carries out the task minimally by complying with few of the assigned requirements.	The student did not comply with the assigned requirements.	
Content	The student fully elaborates his/her responses and provides sufficient details and explanations.	The student sometimes elaborates his/her responses and provides some details and explanations.	The student hardly ever elaborates his/her responses and provides a few details and explanations.	The student poorly elaborates his/her responses and provides few details and explanations.	
Grammar	The student shows an accurate use of grammatical structures. Communication is fluid.	The student shows some grammatical errors, but they do not hinder communication.	The student shows many grammatical errors that often interfere with communication.	The student does not show accurate use of structures, which constantly interfere with communication.	
Vocabulary	The student uses a wide range of vocabulary that allows him/her to express his/her ideas clearly most of the time.	The student uses vocabulary that allows him/her to express his/her ideas accurately most of the time.	The student uses appropriate vocabulary that allows him/her to express his/her ideas somewhat clearly.	The student uses inadequate vocabulary that does not allow him/her to express his/her ideas accurately.	
Pronunciation	The student pronounces most of the words well and articulation is clear which facilitates communication.	The student mispronounces some words and articulation is somewhat unclear, but communication is still at ease.	The student mispronounces most of the words and articulation is rarely clear which hinders communication.	The student mispronounces all words and articulation is unclear which hinders communication.	

Adapted from Oral Assessment Rubric used in Programa de Inglés por Áreas at the University of Costa Rica

Final Results

English Skills	Total Points	Points obtained	Proficiency
Listening	20pts		
Reading	20pts		
Writing	20pts		
Speaking	20pts		
Score:			
Overall Proficiency:			

Parameters

<p style="text-align: center;"><u>Listening</u></p> <p>Moderate 15 - 20pts Low 8 - 14 pts Elementary 0 - 8 pts</p>	<p style="text-align: center;"><u>Speaking</u></p> <p>Moderate 15 - 20pts Low 8 - 14 pts Elementary 0 - 8 pts</p>
<p style="text-align: center;"><u>Reading</u></p> <p>Moderate 15 - 20pts Low 8 - 14 pts Elementary 0 - 8 pts</p>	<p style="text-align: center;"><u>Writing</u></p> <p>Moderate 15 - 20pts Low 8 - 14 pts Elementary 0 - 8 pts</p>

Overall Proficiency Results

Moderate: 41-80 points

Low: 201 – 40 points

Elementary: 0-20 points

Appendix D: Student-version of the Syllabus

University of Costa Rica

Maestría en la Enseñanza del Inglés como Lengua Extranjera

Instructors: Calderón, T and Rojas, S.

Mondays from 5 p.m. to 7:30 p.m.



I. Course Description

Shaping Words is an ESP course intended for professors and Master's Program students of the Statistics field at UCR. By the end of the course, learners will effectively interact with English speakers at a moderate proficiency level, participate in conferences, and read articles in order to meet their academic and work-related needs.

The course will be taught by two student-teachers, who are language instructors. Classes will take place at the auditorium of the Health Sciences Library at UCR once a week, two hours and a half per day. The course will be developed through a Task-Based Approach integrating three macro skills: listening, speaking and reading as well as micro skills for each major skill. The macro and micro skills will be emphasized through the design of tasks and materials to meet students' needs. Authentic material will be included through the course in order to provide learners with technical vocabulary, authentic-language use, and real-life interactions.

II. Goals and Objectives

Unit 1: What are conferences about?

- By the end of the unit, the students will be able to successfully follow introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

- By the end of the unit, the students will be able to interact effectively with presenters and participants in English when attending conferences by using appropriate structures, register, and vocabulary.

Unit 2: Sharing knowledge

By the end of the unit, the students will be able to develop orally the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, and vocabulary.

Unit 3: Interpreting words

By the end of the unit, the students will be able to demonstrate comprehension of abstracts, introductions and the methods section from research articles by identifying main sections and relevant ideas from the text.

III. Methodology

The course will involve different types of activities that reflect real-life situations within the participants' professional and academic life. They will include oral presentations, reading and listening comprehension activities, group discussions, and role-plays, among others. These tasks will be done in pairs, groups and individually. Students play an active role in the learning process, as they are encouraged to participate actively in each of the learning experiences. The teacher's role, on the other hand, is that of a facilitator in the different learning-teaching processes.

IV. Assessment

The assessment criteria are based on tasks in order to encourage students to communicate. Students' performance is constantly assessed throughout the course based on their work in class and progress displayed in the main skills. The instructors will give the student constant feedback, either orally or in written form, at different times along the course. Below is the course breakdown:

Type of assessment	Percentage
* Attendance	5%
2 Academic Tests	30% (15% each) (Unit 1 and Unit 3)
2 Speaking Tasks	30% (15% each) (Unit 1 and Unit 2)
Conference simulation	20%
Short Quizzes	15% (1 per unit)

* Attendance is compulsory, as it is part of the course assessment. Students are allowed to be absent from class a total number of only **eight hours** (8 hrs.). When the student cannot attend a class, he or she must notify the instructors in advance or in a period no longer than a week after his/her absence. A certificate will be given to students who successfully conclude the course without missing more than four sessions.

Appendix E: Contents

UNIT 1: What are conferences about?

Goal 1: By the end of the unit, the students will be able to successfully show understanding of introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

General Objectives: By the end of the lesson, the students will be able to:

1. properly identify steps in the moves of an introduction by analyzing excerpts of sample presentations.
2. accurately recognize signposting language used to introduce each move or section in an introduction.
3. effectively show understanding of key points delivered in an introduction by taking notes.

General Objective	Tasks	Skills	Language Focus	Strategies	Time allotted
1.	Identify main sections in an introduction to a talk by analyzing samples.	L R	<p>Vocabulary Statistical terms: <i>mean of a sample, probability, variable, standard error, correlation, distribution.</i></p> <p>Grammar Simple Present</p> <ul style="list-style-type: none"> - <i>The main goal is...</i> - <i>There are a number of points...</i> - <i>The subject of the topic is...</i> <p>Future forms (will and going to)</p> <ul style="list-style-type: none"> - <i>I'm going to divide this talk into four parts.</i> - <i>I'll begin with ...</i> 	<p>Listening for main ideas</p> <p>Activating background knowledge</p>	2 lessons

			Pronunciation <ul style="list-style-type: none"> - <i>contractions of future forms</i> - <i>Statistical terms: variable, correlation, population size. Statistics-Statistician-Statistical (word families)</i> 		
2.	Recognize signposting language used to introduce each move or section in an introduction.	L R W	Vocabulary Connectors, conjunctive adverbs, and lexical chunks <ul style="list-style-type: none"> - <i>For example,</i> - <i>For instance</i> - <i>I mean,</i> - <i>As I was saying,</i> - <i>However</i> - <i>Finally,</i> - <i>Actually</i> - <i>Consequently</i> Grammar Simple Present <ul style="list-style-type: none"> - <i>The main goal is...</i> - <i>There are a number of points...</i> - <i>The first step is...</i> - <i>This talk aims to...</i> Future forms (will and going to) <ul style="list-style-type: none"> - <i>I'm going to divide this talk into four parts.</i> - <i>I'll start with... and then I'll focus on...</i> Pronunciation <ul style="list-style-type: none"> - <i>s endings</i> - <i>contractions of future forms</i> 	Activating background knowledge Listening for specific details and cohesive devices	2 lessons

			- <i>Statistical terms: sampling methods, average, regression, variants. Estimate-estimation.</i>		
3.	Show understanding of key points delivered in an introduction to a talk by taking notes.	L R	<p>Vocabulary: <i>Statistical terms: Probability, outcome, random, sampling, median, mode, bivariate</i></p> <p>Grammar Simple Past</p> <ul style="list-style-type: none"> - <i>We simulated...</i> - <i>This research used Gibbs sampling...</i> - <i>We worked with a Gaussian distribution...</i> - <i>This study evaluated vitamin E in 9541 patients...</i> - <i>The trial was a primary study...</i> <p>Modal verbs of probability (could/may)</p> <ul style="list-style-type: none"> - <i>We could develop a good proposal distribution...</i> - <i>The algorithm may spend a long time exploring...</i> <p>Pronunciation</p> <ul style="list-style-type: none"> - ed inflectional endings in past verbs - <i>Modal verbs</i> - <i>Numbers /θ/ for three, thirty, thirteen</i> 	Listening for main ideas Listening for cohesive devices Note-taking	2 lessons

Goal 2: By the end of the unit, the students will be able to interact effectively with presenters and participants in English when attending conferences by using appropriate structures, register, and vocabulary.

General objectives: By the end of the lesson, the students will be able to:

1. effectively interact with other conference participants during breaks at a conference by introducing themselves, exchanging pieces of information, and commenting on topics, based on the subjects or a research study being presented.
2. appropriately request information during a question-answer session after a talk at a conference by formulating adequate questions.

General Objective	Tasks	Skills	Language Focus	Strategies	Time allotted
1.	<p>Macro task</p> <p>Interact with other conference participants</p> <p>Micro tasks</p> <ul style="list-style-type: none"> - Introduce oneself to other participants - Exchange pieces of information - Comment on a topic 	S L	<p>Vocabulary</p> <p>Formal greetings</p> <ul style="list-style-type: none"> - <i>Good morning/afternoon/evening</i> - <i>How are you doing today?</i> - <i>How are you?</i> <p>Introducing yourself</p> <ul style="list-style-type: none"> - <i>I'm....</i> - <i>I'm from...</i> - <i>I work at...</i> <p>Asking personal information questions</p> <ul style="list-style-type: none"> - <i>What's your area of specialization?</i> - <i>Where do you work?</i> - <i>What about you?</i> <p>Commenting on a topic</p> <ul style="list-style-type: none"> - <i>What do you think about...?</i> - <i>I think/believe...</i> - <i>What's your opinion about...?</i> - <i>Do you like...?</i> - <i>I agree with you...</i> 	<p>Asking for clarification</p> <p>Asking for repetition</p> <p>Turn-taking</p> <p>Using back-channel cues</p> <p>Monitoring</p> <p>Questioning</p> <p>Acting out</p>	3 lessons

			<p>Grammar Simple Present</p> <ul style="list-style-type: none"> - <i>I believe the first step is to initialize the sample value...</i> - <i>The main proposal consists of three components...</i> - <i>I work at the Oklahoma States University in the field of...</i> <p>Question formation (Yes/No Qs and Wh-Qs)</p> <ul style="list-style-type: none"> - <i>Do you work with analytics?</i> - <i>What's your point of view about...?</i> <p>Pronunciation</p> <ul style="list-style-type: none"> - <i>Rising and falling intonation in Questions</i> 		
2.	Request information during a question-answer session after a talk at a conference by formulating adequate questions.	L S	<p>Vocabulary Interrupting</p> <ul style="list-style-type: none"> - Excuse me, can you tell me how...? - Excuse me for a second; I have a question about... - Sorry to interrupt, could you tell me about...? <p>Grammar Question formation in simple past.</p> <ul style="list-style-type: none"> - <i>What technique did you use to obtain the estimation...?</i> - <i>What was the main outcome of the sampling method?</i> - <i>How did you evaluate the effects of...?</i> 	<p>Asking for repetition</p> <p>Asking for clarification</p> <p>Paraphrasing</p> <p>Monitoring</p> <p>Questioning</p>	2 lessons

			<p>Indirect questions. Modal verbs for requests (can, could, and would).</p> <ul style="list-style-type: none"> - Could you please tell me how you reduced...? - Can you please explain the random sampling technique you used...? <p>Pronunciation</p> <ul style="list-style-type: none"> - <i>Rising and falling intonation of Yes/No Qs and Wh-Qs</i> 		
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UNIT 2: Sharing Knowledge

Goal: By the end of the unit, the students will be able to develop orally the introduction of a talk about a research project when participating as presenters at conferences by using appropriate structures, vocabulary and delivery strategies.

General Objectives: By the end of the lesson, the students will be able to:

1. appropriately recognize characteristics of well-delivered introductions and delivery strategies by analyzing authentic videos of sample presentations.
2. appropriately deliver an introduction to a talk using delivery strategies, appropriate structures and vocabulary.
3. successfully interpret results from graphs or figures of a research by using the appropriate vocabulary and structures.

General Objective	Tasks	Skills	Language Focus	Strategies	Time allotted
1.	Recognize characteristics of well-delivered presentations and delivery strategies by analyzing authentic	L S W	<p>Vocabulary</p> <ul style="list-style-type: none"> - <i>Today, I'd like to talk (to you) about...</i> - <i>Did you know that...?</i> - <i>Statistics show that...</i> - <i>As you can observe...</i> - <i>As I mentioned before...</i> - <i>Recycling sequencers (First of all, then, next...)</i> 	<p>Activating background knowledge</p> <p>Predicting</p>	2 lessons

	videos of sample presentations		<p>Grammar Imperatives</p> <ul style="list-style-type: none"> - <i>Look at the first slide...</i> - <i>Let us focus on...</i> <p>Pronunciation</p> <ul style="list-style-type: none"> - <i>Statistical terms</i> - <i>Modal verbs Would</i> - <i>Linking consonant + vowel (Ex. look at and focus on).</i> 	Listening for specific details	
2.	Prepare the main sections of a conference presentation introduction following the guidelines provided.	R W	<p>Vocabulary</p> <ul style="list-style-type: none"> - <i>The purpose of this presentation is...</i> - <i>The focus of this investigation was...</i> - <i>Recycling sequencers, linking words</i> - <i>First, second, third...</i> <p>Grammar</p> <ul style="list-style-type: none"> - <i>Recycling simple present, simple past, future forms (will and going to), and imperatives.</i> 	Summarizing Planning Note-taking	3 lessons
2.	Deliver a conference presentation introduction using delivery strategies, appropriate structures and vocabulary.	S L R	<p>Vocabulary</p> <ul style="list-style-type: none"> - <i>Let us move to the following slide...</i> - <i>I divided my topic into (three) parts: They are . . .</i> - <i>Based on...</i> - <i>The significance of this project is...</i> <p>Grammar</p> <ul style="list-style-type: none"> - <i>Recycling simple present, simple past and future forms</i> 	Circumlocution Monitoring	2 lessons

			Pronunciation <ul style="list-style-type: none"> - <i>Pronunciation of –ed inflectional endings in past verbs</i> - <i>Recycling linking consonant + vowel (As I mentioned..., let us, focus on).</i> 		
3.	Interpret results from graphs and figures using appropriate vocabulary and structures.	S L R W	Vocabulary <ul style="list-style-type: none"> - Adverbs (slightly, drastically, steadily...) - Adjectives (slight, gradual, dramatic, sharp...) - Verbs (increase, decrease, drop, go up...) Grammar <ul style="list-style-type: none"> - Comparatives and superlatives (the most significant, the lowest, more productive...) 	Negotiating meaning Using cognates	2 lessons

Abbreviations: L= listening, S= speaking, R= reading, W= writing.

UNIT 3: Interpreting Words

Goal: By the end of the unit, the students will be able to demonstrate comprehension of abstracts and introductions from research articles by identifying moves and relevant ideas from the text.

General Objectives: By the end of the unit, the students will be able to:

1. successfully identify the moves of abstracts from a research paper or article by analyzing sample texts.
2. accurately recognize the organization of introductions from research papers or article by analyzing sample texts.
3. Accurately recognize the parts of the methods section from research articles by identifying sample texts.

Objective	Tasks	Skills	Language Focus	Strategies	Time allotted
1.	Identify the main sections of abstracts and introductions from research papers.	R L S	<p>Vocabulary <i>Background, methods, data collection instruments, study variable, participants, Results, Implications</i></p> <p>Noun phrases</p> <ul style="list-style-type: none"> - <i>Population size</i> - <i>Time constraint</i> - <i>Sampling method</i> - <i>Current state</i> - <i>Variance parameter</i> <p>Grammar</p> <ul style="list-style-type: none"> - Recycling Simple Present - <i>Data suggests that activation of...</i> <p>Simple Present Passive</p>	<p>Activating background knowledge</p> <p>Using context clues</p> <p>Predicting</p>	2 lessons

			<ul style="list-style-type: none"> - Gibbs sampling is used for random variables... - Other variables are fixed to their current values... <p>Pronunciation</p> <ul style="list-style-type: none"> - Recycling –ed inflectional endings in past participles - Pronouncing irregular past participles (shown, given, done, chosen, known) 		
2.	Recognize the organization of introductions from research papers or articles by analyzing sample texts.	R W	<p>Vocabulary</p> <p>Collocations</p> <ul style="list-style-type: none"> - As compared with... - The effect of... - A total of... - The role of... - Related to... - The results of... <p>Noun phrases</p> <ul style="list-style-type: none"> - Sample values - Random variable - Data analysis - Programming language <p>Connectors</p> <ul style="list-style-type: none"> - In order to... - As a result of... - However, - Recycling sequencers - First, second, finally, 	<p>Activating background knowledge</p> <p>Predicting</p> <p>Using context clues</p>	2 lessons

			Grammar Simple Past Passive <ul style="list-style-type: none"> - <i>It was found that the cause of heart disease...</i> - <i>This finding was accepted as the main...</i> - <i>Other outcomes were included in the final report...</i> - <i>421 participants were enrolled in a substudy</i> 		
3.	Recognize the parts of the methods section of a research article by analyzing sample texts.	R W	Vocabulary Nominalizations <ul style="list-style-type: none"> - <i>The collection of data resulted in...</i> - <i>The investigation shows that...</i> - <i>Performing Bayesian inference requires calculating...</i> Grammar <ul style="list-style-type: none"> - <i>Recycling simple present passive and simple past passive</i> Pronunciation <ul style="list-style-type: none"> - <i>Pronouncing suffixes: -able and -tion.</i> - <i>Recycling -ed inflectional endings in past verbs and past participles</i> 	Reading for specific details and main ideas Summarizing Note-taking	2 lessons

Abbreviations: Ss=students, L= listening, S= speaking, W= writing, R= reading.

Appendix F: Student Performance

University of Costa Rica
 School of Modern Languages
 Master's in Teaching English as a Foreign Language
 Calderon, T. & Rojas, S.

Grade: _____
 Obt. Points: _____
 Total Value: 20 points



Second Speaking Task Analytic Rubric

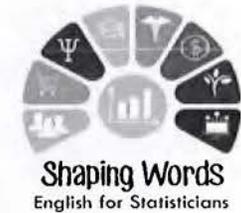
Student's name: _____ Date: _____ Topic: _____

Criteria	Meets expectations (4)	Good (3)	Needs improvement (2)	Poor (1)	Total
Task	Speaker carries out the task thoroughly by complying with most of the assigned requirements. The presentation is delivered within the allotted time.	Speaker carries out some of the assigned requirements. The presentation is delivered within most of the allotted time.	Speaker carries out the task minimally by complying with few of the assigned requirements. A small section of the presentation was delivered within the allotted time.	Speaker did not comply with the assigned requirements. The presentation was not delivered within the allotted time.	
Organization	Welcomes the audience. The attention getter is appropriate. The topic is clearly stated. A comprehensive outline of the overall presentation is provided. Sign-posting language is effective and consistent.	Welcomes the audience. The attention getter is somewhat appropriate. The topic is somewhat clear. An outline of the overall presentation is provided. Sign-posting language is effective and consistent during most of the presentation.	Welcomes the audience. The attention getter and topic are not clearly stated. An outline of the overall presentation is partially provided. Sign-posting language is limited.	Does not welcome the audience. There is no attention getter and the topic is not stated. An outline of the overall presentation is not provided. Sign-posting language is not used.	
Delivery	Eye contact, posture, and gestures are appropriate and under control during the whole presentation. Speaker does not read from notes. Tone and volume are appropriate.	Eye contact, posture, and gestures are appropriate and under control during most of the presentation. Speaker occasionally reads from notes. Tone and volume are appropriate most of the time.	Limited eye contact. Poor control of gestures and posture. Speaker often reads from notes. Tone and volume are sometimes appropriate.	Speaker does not make eye-contact. Posture and gestures are not appropriate for the presentation. Speaker reads from notes through the presentation. Tone and volume are not appropriate.	
Language (Grammar and Vocabulary)	Speaker uses grammatical structures accurately most of the time. Speaker uses variety of vocabulary, which allows him/her to express ideas clearly.	Speaker sometimes uses grammatical structures accurately. Speaker uses moderately varied vocabulary, which allows him/her to express ideas somewhat clearly.	Speaker rarely uses grammatical structures accurately. Speaker uses a limited amount of vocabulary, which does not allow him/her to express ideas clearly.	Speaker does not use grammatical structures accurately. Speaker does not use enough vocabulary; therefore, he/she can't express ideas well.	
Pronunciation	Speaker pronounces most of the words well and articulation is clear which facilitates communication.	Speaker mispronounces some words and articulation is somewhat unclear, but communication is still at ease.	Speaker mispronounces most of the words and articulation is rarely clear which hinders communication.	Speaker mispronounces all words and articulation is unclear which hinders communication.	

Adapted from Oral Assessment Rubric used in Programa de Inglés por Áreas at the University of Costa Rica

Appendix G: Course Evaluation

University of Costa Rica
School of Modern Languages
Master's in Teaching English as a Foreign Language
Calderon, T. & Rojas, S.



Course Evaluation Unit 2: Sharing knowledge

1. The purpose of this questionnaire is to know your opinion about the previous unit in order to make the necessary modifications. The information obtained is confidential and anonymous; therefore, it does not represent any risk for the student.

A. Read the statements below. Then, mark (X) the option that best describes your opinion about the course.

	Always	Usually	Rarely	Never
1. The contents were presented at my language level.				
2. The contents followed a logical sequence.				
3. The materials and tasks were appropriate for the objectives of the unit.*				
4. The materials and tasks were user-friendly and varied.				
5. The materials and tasks were varied.				
6. The activities and materials were relevant to my work field.				
7. The facilitators were organized and prepared for each class.				
8. Evaluation activities were related to the course contents.				
9. The unit satisfied my expectations.				

B. Answer the following question. Provide sufficient details.

1. What changes would you suggest for next unit? Please explain.

*** Unit 2: General objectives:**

1. Recognize characteristics of well-delivered presentations and delivery strategies by analyzing authentic videos of presentations.
2. Show understanding of main sections of an introduction to a talk by preparing its content following the guidelines provided.
3. Deliver an introduction to a talk on a topic of your field using delivery strategies, appropriate structures, and vocabula

Appendix H: Student Teacher Evaluation

University of Costa Rica
 School of Modern Languages
 Master's in Teaching English as a Foreign Language
 Calderon, T. & Rojas, S.



Facilitator Evaluation

1. The purpose of this questionnaire is to obtain information about the facilitators' performance while teaching this course. The information obtained is confidential and anonymous; therefore, it does not represent any threat for the student.

Facilitator: _____ **Date:** _____

- A. Read each statement about the facilitator's performance. On a scale from 1 to 4, in which 1 means strongly disagree and 4 means strongly agree, rate the following criteria. Circle the number you choose.**

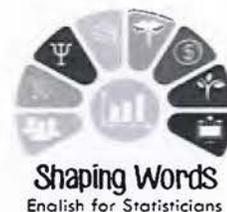
1=strongly disagree 2= partially disagree 3= partially agree 4= strongly agree

The facilitator....	Score			
a. respected the class schedule.	1	2	3	4
b. managed time appropriately, so different classroom activities were implemented.	1	2	3	4
c. promoted an enjoyable and respectful environment in the classroom.	1	2	3	4
d. demonstrated mastery of the topics.	1	2	3	4
e. communicated instructions and explanations clearly.	1	2	3	4
f. motivated me to participate.	1	2	3	4
g. carried out relevant classroom activities for my work and academic field.	1	2	3	4
h. used materials and tasks that evidenced careful planning.	1	2	3	4
i. addressed questions promptly.	1	2	3	4
j. used a variety of techniques to facilitate learning.	1	2	3	4
k. showed respect toward students.	1	2	3	4

B. On the lines provided, explain in detail your response to any of the elements in the previous chart, or provide a comment or suggestion that can help the facilitator in future classes.

Appendix I: Peer-Assessment

University of Costa Rica
School of Modern Languages
Master's in Teaching English as a Foreign Language
T. Calderon / S. Rojas



Peer-Assessment Second Speaking Task

My partner's name: _____ Date: _____

Part 1: Pay attention to your partner's presentation. Then, read the descriptions and write comments about his/her performance.

Criteria	Description	Comments
Introduction	Speaker clearly introduces himself/herself, uses an effective attention getter, and outlines the main points of the presentation.	
Organization	The speaker organizes ideas clearly, and logically. Points are clearly developed.	
Delivery	Speaker is confident and maintains eye contact with the audience. Posture and gestures are appropriate.	
Time Management	Speaker manages time effectively.	

Try to take some notes on **grammar**, **structure** and **pronunciation** as well.

Part 2: Complete the following sentences to provide additional feedback.

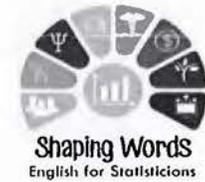
I liked it when the speaker _____

The speaker was good at _____

The speaker could improve _____

Appendix J: Self-Assessment

University of Costa Rica
School of Modern Languages
Master's in Teaching English as a Foreign Language
Calderon, T. & Rojas, S.



Self-Assessment Second Speaking Checklist

Name: _____ Date: _____ Topic: _____

- Use the following checklist to evaluate your presentation. Mark (X) the option that describes your performance and add comments about how you can improve.

Did I....	Rarely	Sometimes	Often	Comments: I can Improve by...
1. speak clearly?				
2. use a good tone of voice?				
3. use an attention-getter?				
4. introduce myself?				
5. outline my presentation?				
6. use delivery strategies? (eye contact, posture, gestures)				
7. manage time effectively?				
8. use language correctly?				
9. pronounce words appropriately?				

Appendix K: Self-Assessment per Unit

University of Costa Rica
School of Modern Languages
Master's in Teaching English as a Foreign Language
Calderon, T. & Rojas, S.



Self-Assessment

Unit 1: What are conferences about?

1. Read the following phrases and mark (X) the options that show what you can do.

Criteria	Scale			
	Always	Usually	Often	Never
1. I can introduce myself properly.				
2. I can exchange information with other people.				
3. I can answer simple information questions.				
4. I can understand what others are talking about.				
5. I can give my opinion about research studies.				
6. I can ask for clarification when I do not understand.				
7. I can agree/disagree with others.				
8. I can ask appropriate questions during a question-answer session.				

Adapted from O'Malley, J. & Valdez Pierce, L. (1996). *Authentic assessment for English learners*. Addison Wesley Publishing Company.

Appendix L: Students' Likert Scale



Date: _____

1. Based on the previous activity, choose **(X)** a number from 1 to 4 where 1 means **strongly disagree** and 4 means **strongly agree**.
 You can add comments when possible.

Scale: 1= strongly disagree 2= disagree 3= agree 4= strongly agree

Criteria	Scale				Comments
	1	2	3	4	
The last activity...					
- was relevant to my field					
- was appealing					
- matched my language level					
- provided sufficient context					
- integrated different skills					
- was communicative					
- applied useful language for interaction					
- had a purpose					

Principles adapted from

- Ellis, R. (2009). *Task-based language learning and teaching*. Oxford: Clarendon
- Leaver, B. L., & Willis, J. R. (Eds.). (2004). *Task-based instruction in foreign language education: Practices and programs*. Georgetown University Press.
- Richards, J. & Rodgers, T. (2001). *Approaches and Methods in Language Teaching*. Second Edition. NY: Cambridge University Press.
- Willis, D., & Willis, J. (2007). *Doing task-based teaching*. Oxford: Oxford University Press.

University of Costa Rica
 PF-0311 Practicum
 Course: Shaping Words
 Observation Instrument
 Teresita Calderón & Sandra Rojas

Appendix M: Supervisors' Likert Scale



Research question: To what extent do external evaluators find the design and implementation of main tasks effective according to TBLT principles?

Lesson # _____ **Date:** _____

A. Based on the main task of the session, please complete the following chart. Add comments when necessary.

Scale: 1= strongly disagree 2= disagree 3= agree 4= strongly agree

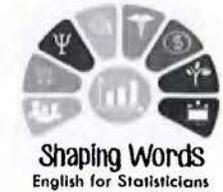
Criteria	Scale				Comments
	1	2	3	4	
The main task:					
1. has a clear communicative purpose					
2. fully engages learners					
3. provides useful language to facilitate interaction					

4. involves appropriate task-specific vocabulary provided during the pre-task stage					
5. encourages real-world use of language (negotiating, clarifying)					
6. focuses on meaning rather than form					
7. provides a meaningful context for the learners					
8. integrates different skills					
9. matches the students' proficiency level					
10. helps to achieve the expected outcome of the lesson					

Principles adapted from

- Ellis, R. (2009). *Task-based language learning and teaching*. Oxford: Clarendon
- Leaver, B. L., & Willis, J. R. (Eds.). (2004). *Task-based instruction in foreign language education: Practices and programs*. Georgetown University Press.
- Richards, J. & Rodgers, T. (2001). *Approaches and Methods in Language Teaching*. Second Edition. NY: Cambridge University Press.
- Willis, D., & Willis, J. (2007). *Doing task-based teaching*. Oxford: Oxford University Press.

Appendix N: Instruments Unit 1



University of Costa Rica
Shaping Words
Facilitators: Teresita Calderon & Sandra Rojas

Unit 1: What are conferences about?

First Speaking Test 15%

Roles

Student A

You are attending a conference in another country. It is the coffee break time and you would like to network to make new contacts. Have a conversation with another attendee. Make sure you use an appropriate greeting, introduce yourself, ask a few questions and finish the conversation. Use the strategies "active listening" and "asking for clarification" when necessary.

Useful language

- Where do you come from? *I come from...*
- What kind of projects are you working on right now? *I'm working on...*

Student B

You are attending a conference in another country. It is the coffee break time and you would like to network to make new contacts. Have a conversation with another attendee. Make sure you use an appropriate greeting, introduce yourself, ask a few questions and finish the conversation. Use the strategies "active listening" and "asking for clarification" when necessary.

Useful language

- Where do you come from? *I come from...*
- What kind of projects are you working on right now? *I'm working on...*



Unit 1: What are conferences about?
First Speaking Test 15%

Name: _____ Total points 20 pts. Obt. Points _____ Grade _____

	Meets expectations (4)	Adequate (3)	Needs improvement (2)	Inadequate (1)	SCORE
Task	The student carries out the task thoroughly by complying with most of the assigned requirements.	The student carries out some of the assigned requirements.	The student carries out the task minimally by complying with few of the assigned requirements.	The student does not comply with the assigned requirements.	
Grammar	The student shows an accurate use of grammatical structures. Communication is fluid.	The student shows some grammatical errors, but they do not hinder communication.	The student shows many grammatical errors that often interfere with communication.	The student doesn't show accurate use of structures, which constantly interfere with communication.	
Vocabulary	The student uses a wide range of vocabulary that allows him/her to express his/her ideas clearly most of the time.	The student uses vocabulary that allows him/her to express his/her ideas accurately most of the time.	The student uses appropriate vocabulary that allows him/her to express his/her ideas somewhat clearly.	The student uses inadequate vocabulary that does not allow him/her to express his/her ideas accurately.	
Pronunciation	The student pronounces most of the words well and articulation is clear which facilitates communication.	The student mispronounces some words and articulation is somewhat unclear, but communication is still at ease.	The student mispronounces most of the words and articulation is rarely clear which hinders communication.	The student mispronounces all words and articulation is unclear which hinders communication.	

Interactive communication	The student initiates and responds appropriately providing sufficient details. Maintains and develops the interaction without support.	The student initiates and responds appropriately providing some details. Maintains and develops the interaction with very little support.	The student responds with simple exchanges providing few details. Maintains and develops the interaction with some support.	The student poorly responds and provides very few details. Maintains and develops the interaction with a lot of support.	
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Adapted from Oral Assessment Rubric used in Programa de Inglés por Áreas at the University of Costa Rica.

Appendix O: Instruments Unit 2



Universidad de Costa Rica
PF-0311 Practicum
Quiz # 2: Listening
Unit 2: Sharing Knowledge

Time allotted: 15 minutes

Total points: 10 pts

Points obtained: _____

Score: _____

Percentage: _____ / 5%

Name: _____

Date: _____

GENERAL INSTRUCTIONS

- Write down your personal information.
- Read all the instructions carefully.
- Check that your exam consists of **2** numbered pages.
- Additional papers are not allowed. You must answer all questions on this same exam.
- Write clearly and orderly. Use blue or black ink only.
- The use of mobile phones or any other electronic device is forbidden during the administration of the exam.

Listening Comprehension

Context: Listen to the introduction of a talk about the *Dangers of mixing up causality and correlation*, then do the following exercise.

A. Listening for details. Choose the word that correctly completes the statement. (4pts)

1. The speaker says that a trend in ice –cream sales and drownings is going (**up / down**).
2. She is sure that the audience understands that the example is (**right / wrong**).
3. The speaker gives an (**example / explanation**) of common mistakes regarding causality and correlation.
4. The goal of her talk is to help people (**stop / recognize**) this kind of mistakes.

B. Focusing on the structure. Write a check mark (✓) next to the statements that are TRUE.
(6pts)

	YES
1. The speaker welcomes the audience.	
2. The speaker gives her credentials.	
3. The speaker uses an attention getter.	
4. The speaker uses a question to call the audience attention.	
5. The speaker uses a startling statement to call the audience attention.	
6. The speaker explains the purpose of her talk.	

Glossary:

Drowning: death caused by being underwater and not being able to breathe.

Ban: prohibit

Answer Key

Video : <https://www.youtube.com/watch?v=8B271L3NtAw>

From 0:09 to 1: 23 (Total 1: 14 min.)

	YES
1. The speaker welcomes the audience.	✓
2. The speaker gives her credentials.	
3. The speaker uses an attention getter.	✓
4. The speaker uses a question to call the audience attention.	
5. The speaker uses a startling statement to call the audience attention.	✓
6. The speaker explains the purpose of her talk.	✓

B. Listening for details. Choose the word that correctly completes the statement. (4pts)

1. The speaker says that a trend in ice –cream sales and drownings is going (**up / down**).
2. She believes the audience understands that the example is (**right / wrong**).
3. The speaker gives an (**example / explanation**) of common mistakes regarding causality and correlation.
4. The goal of her talk is to help people (**make / recognize**) these kind of mistakes.



Second Speaking Test Guidelines

1. **Imagine you're going to present a talk in a conference about a topic of your interest in the field of Statistics.**
2. **Write an introduction for your talk. Make sure you...**
 - Include an appropriate greeting and welcome the audience.
 - Mention your credentials.
 - Write an interesting attention getter. (Choose one from the ones studied in class).
 - State the goal of your presentation.
 - Mention the main points of your presentation.
3. **Use appropriate signposting language.**
4. **Your presentation should last minimum 3 minutes and maximum 5 minutes.**
5. **Make sure you use delivery strategies** (body language, eye contact, organization...)
6. **Don't read your presentation in class and avoid looking down at papers. Create outline notes instead.**
7. **Practice your introduction at home. You can record yourself to check any possible mistake you need to correct before presenting in class.**

Attention getters

Reference to statistics	<p>Provide a very surprising fact or statistic. Do not use big numbers; make it very understandable in human terms.</p> <p><i>22% of users have cancelled...</i></p>
Personal reference	<p>Refer to a story about yourself that is relevant for your topic.</p> <p><i>A few years ago, I was...</i></p>
Current events	<p>Refer to current news or an event that relates to your topic. It immediately makes the audience aware of how relevant the topic is in today's world.</p> <p><i>Recently, the president decided to execute...</i></p>
Reference to subject	<p>Tell your audience the subject of your speech. This technique is probably the most direct.</p> <p><i>I'm going to talk about a new technique...</i></p>
Startling statement	<p>Surprise your audience with astonishing information about your topic. Often, surprising statements come in the form of interesting and strange facts.</p> <p><i>Did you know that 15%...?</i></p>

Adapted from: <https://2012books.lardbucket.org/books/public-speaking-practice-and-ethics/s12-02-the-attention-getter-the-first.html>

University of Costa Rica

Shaping Words

Facilitators: Teresita Calderon & Sandra Rojas

Grade: _____

Obt. Points: _____

Total Value: 20 points



**Second Speaking Test
Analytic Rubric**

Student's name: _____ Date: _____ Topic: _____

Criteria	Meets expectations (4)	Good (3)	Needs improvement (2)	Poor (1)	Total
Task	Speaker carries out the task thoroughly by complying with most of the assigned requirements. The presentation is delivered within the allotted time.	Speaker carries out some of the assigned requirements. The presentation is delivered within most of the allotted time.	Speaker carries out the task minimally by complying with few of the assigned requirements. A small section of the presentation was delivered within the allotted time.	Speaker did not comply with the assigned requirements. The presentation was not delivered within the allotted time.	
Organization	Welcomes the audience. The attention getter is appropriate. The topic is clearly stated. A comprehensive outline of the overall presentation is provided. Sign-posting language is effective and consistent.	Welcomes the audience. The attention getter is somewhat appropriate. The topic is somewhat clear. An outline of the overall presentation is provided. Sign-posting language is effective and consistent during most of the presentation.	Welcomes the audience. The attention getter and topic are not clearly stated. An outline of the overall presentation is partially provided. Sign-posting language is limited.	Does not welcome the audience. There is no attention getter and the topic is not stated. An outline of the overall presentation is not provided. Sign-posting language is not used.	
Delivery	Eye contact, posture, and gestures are appropriate and under control during the whole presentation. Speaker does not read from notes. Tone and volume are appropriate.	Eye contact, posture, and gestures are appropriate and under control during most of the presentation. Speaker occasionally reads from notes. Tone and volume are appropriate most of the time.	Limited eye contact. Poor control of gestures and posture. Speaker often reads from notes. Tone and volume are sometimes appropriate.	Speaker does not make eye-contact. Posture and gestures are not appropriate for the presentation. Speaker reads from notes through the presentation. Tone and volume are not appropriate.	
Language (Grammar and Vocabulary)	Speaker uses grammatical structures accurately most of the time. Speaker uses variety of vocabulary, which allows him/her to express ideas clearly.	Speaker sometimes uses grammatical structures accurately. Speaker uses moderately varied vocabulary, which allows him/her to express ideas somewhat clearly.	Speaker rarely uses grammatical structures accurately. Speaker uses a limited amount of vocabulary, which does not allow him/her to express ideas clearly.	Speaker does not use grammatical structures accurately. Speaker does not use enough vocabulary; therefore, he/she can't express ideas well.	
Pronunciation	Speaker pronounces most of the words well and articulation is clear which facilitates communication.	Speaker mispronounces some words and articulation is somewhat unclear, but communication is still at ease.	Speaker mispronounces most of the words and articulation is rarely clear which hinders communication.	Speaker mispronounces all words and articulation is unclear which hinders communication.	

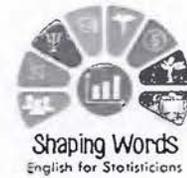
Adapted from Oral Assessment Rubric used in Programa de Inglés por Áreas at the University of Costa Rica

Appendix P: Simulation

Univerisdad de Costa Rica

Shaping Words

Facilitators: Teresita Calderón & Sandra Rojas



Conference Simulation Guidelines

The simulation is the last opportunity to put into practice what we have learned.

Presenting a talk

1. **Imagine you're going to present a talk in a conference about a topic of your interest in the field of Statistics.**
2. **During the conference, interact with other participants (Use the strategies studied in class- active listening, and asking for clarification)**
3. **Write an introduction for your talk. Make sure you...**
 - Include an appropriate greeting and welcome the audience.
 - Mention your credentials.
 - Write an interesting attention getter. (Choose one from the ones studied in class).
 - State the goal of your presentation.
 - Mention the main points of your presentation.
4. **Use visual aids (PPT) to guide your presentation.**
5. **Include at least one graph related to your study and explain it to your audience.** (Use the language studied –comparatives, superlatives, trends...)
6. **If you want, you can even include information about your sampling technique and methodology.**
7. **Use appropriate signposting language.**

8. Your presentation should last minimum 3 minutes and maximum 5 minutes.
9. Make sure you use delivery strategies (body language, eye contact, organization...)
10. Don't read your presentation in class and avoid looking down at papers.
Create outline notes instead.
11. Practice your introduction at home. You can record yourself to check any possible mistake you need to correct before presenting in class.
12. During your partners' presentations, pay careful attention and write at least two questions for two of them.

**Conference Simulation Task
 Analytic Rubric**

Grade: _____
 Obt. Points: _____
 Total Value: 20 points



Student's name: _____ Date: _____ Topic: _____

Criteria	Meets expectations (4)	Good (3)	Needs improvement (2)	Poor (1)	Total
Task	Speaker carries out the task thoroughly by complying with most of the assigned requirements. The presentation is delivered within the allotted time.	Speaker carries out some of the assigned requirements. The presentation is delivered within most of the allotted time.	Speaker carries out the task minimally by complying with few of the assigned requirements. A small section of the presentation was delivered within the allotted time.	Speaker did not comply with the assigned requirements. The presentation was not delivered within the allotted time.	
Organization	Welcomes the audience. The attention getter is appropriate. The topic is clearly stated. A comprehensive outline of the overall presentation is provided. Sign-posting language is effective and consistent.	Welcomes the audience. The attention getter is somewhat appropriate. The topic is somewhat clear. An outline of the overall presentation is provided. Sign-posting language is effective and consistent during most of the presentation.	Welcomes the audience. The attention getter and topic are not clearly stated. An outline of the overall presentation is partially provided. Sign-posting language is limited.	Does not welcome the audience. There is no attention getter and the topic is not stated. An outline of the overall presentation is not provided. Sign-posting language is not used.	
Delivery	Eye contact, posture, and gestures are appropriate and under control during the whole presentation. Speaker does not read from notes. Tone and volume are appropriate.	Eye contact, posture, and gestures are appropriate and under control during most of the presentation. Speaker occasionally reads from notes. Tone and volume are appropriate most of the time.	Limited eye contact. Poor control of gestures and posture. Speaker often reads from notes. Tone and volume are sometimes appropriate.	Speaker does not make eye-contact. Posture and gestures are not appropriate for the presentation. Speaker reads from notes through the presentation. Tone and volume are not appropriate.	
Language (Grammar and Vocabulary)	Speaker uses grammatical structures accurately most of the time. Speaker uses variety of vocabulary, which allows him/her to express ideas clearly.	Speaker sometimes uses grammatical structures accurately. Speaker uses moderately varied vocabulary, which allows him/her to express ideas somewhat clearly.	Speaker rarely uses grammatical structures accurately. Speaker uses a limited amount of vocabulary, which does not allow him/her to express ideas clearly.	Speaker does not use grammatical structures accurately. Speaker does not use enough vocabulary; therefore, he/she can't express ideas well.	
Pronunciation	Speaker pronounces most of the words well and articulation is clear which facilitates communication.	Speaker mispronounces some words and articulation is somewhat unclear, but communication is still at ease.	Speaker mispronounces most of the words and articulation is rarely clear which hinders communication.	Speaker mispronounces all words and articulation is unclear which hinders communication.	

Interactive communication	The student initiates and responds appropriately providing sufficient details. Maintains and develops the interaction without support.	The student initiates and responds appropriately providing some details. Maintains and develops the interaction with very little support.	The student responds with simple exchanges providing few details. Maintains and develops the interaction with some support.	The student poorly responds and provides very few details. Maintains and develops the interaction with a lot of support.	
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Adapted from Oral Assessment Rubric used in Programa de Inglés por Áreas at the University of Costa Rica

Appendix Q: Instruments Unit 3

University of Costa Rica

Shaping Words

Facilitators: Teresita Calderón & Sandra Rojas

QUIZ # 3

Total points: 11 pts

Pts. Obt. _____

Score: _____

Percentage: _____ / 5%

Time allotted: 15 minutes

Name _____ Date: _____



I. Read the abstract of the article and complete the chart with the following information. **Include the required information only.** (5pts)

1. Place where the study was carried out:	
2. Study design:	
3. Sampling method:	
4. Data analysis method:	
5. Factors associated with happiness:	

II. Read the introduction of the article and answer the following questions. (6 pts)

1. What is the research territory? (1pt)

2. How are the terms "well-being" and "happiness" frequently used in literature? (2 pts)

3. What are the main effective factors on human happiness? (2pts)

4. What is the purpose of the study? (1pt)

Factors Affecting Happiness: A Cross-Sectional Study in the Iranian Youth

Amir Mehrdadi¹, Shahnaz Sadeghian ², Ashraf Direkvand-Moghadam³, Ataollah Hashemian⁴

ABSTRACT

Introduction: Happiness is one of the most important concepts in the mental health that has an impact on different aspects of young people.

Aim: The present study was conducted to identify the factors influencing happiness among young persons in Lian, Iran during 2014.

Materials and Methods: A cross-sectional study was conducted among young population 15-29-year-old. Multistage cluster random sampling method was used to select the participants. Data were collected using two demographic and Oxford Happiness Inventory. SPSS software Package 14 was used to analyze the data.

Results: A total of 500 young people, including 272 men and 228 women were enrolled. The Mean \pm SD of the participants' age was 20 ± 2.18 years. There was a significant relationship between the happiness score and location in urban and rural, employment status and physical activity. There was not a significant relationship between gender, marital status and education level with happiness score among participants.

Conclusion: The age groups, type of occupation, physical activity and place of residence were factors associated with happiness in young persons. However, there was not significant relationship between gender, marital status and education level with a happiness score among study participants

Keywords: Iranian Youth, Happiness score, Physical activity

Introduction

Securing and improving people's health is one of the main goals and priorities of each community. Health is considered as physical, mental and social well-being and not merely the absence of disease or disability. Concepts such as self-satisfaction, life satisfaction and well-being are interest criteria of the World Health Organizations' in the definition of mental health. These components are associated with positive emotions like joy, peace and happiness [1].

Happiness is a psychological concept with several definitions and dimensions [2]. In the field of psychology, the happiness is a positive emotion that is deeper than a good temporary mood. Happiness is one of the most important concepts in the field of mental health and defined as a sustainable approach and pleasant feeling [3].

Happiness in mental health, includes positive emotions such as joy, peace, a sense of involvement and enthusiasm in life [4].

Many psychologists believe that there are at least three fundamental elements of happiness, including emotional, social and cognitive conceptions. Emotional component causing a positive emotional state while social component has led to widespread and positive social relationships with others. The cognitive component causes the individual to interpret everyday events with optimism [5].

The term "well-being" frequently used in literature to mean happiness. However, well-being is commonly used in relation to physical factors and happiness used in relation to mental factors [6]. Previous studies have shown several effects of happiness on human life, including improving physical and mental health, improving sleep quality, decreasing levels of stress hormones, better cardiovascular functioning [7], enhance compliance with life events, strengthening the immune system [8], improve the quality of life [9], and increased life satisfaction [10].

Gender, income, married status, education level, the job satisfaction, health, promote education and increase knowledge are the main effective factors on human happiness [11-15].

The cultural, political, social and economic conditions in Iran has led to the adoption of the age range of 15-29 years for young people in Iran become not a matter of choice but a necessity.

It's well known that the effective factors of people's happiness are dissimilar in the various cultures [16]. Considering the importance of young people in the future of each country and the impact of happiness in different aspects of young people's lives; therefore the present study was conducted to identify the factors influencing happiness among young person in Ilam, Iran during 2014.

Answer Key

I. Read the abstract of the article and complete the chart with the following information. **Include the required information only.** (5pts)

1. Place where the study was carried out:	Liam, Iran during 2014.
2. Study design:	A cross-sectional study
3. Sampling method:	Multistage cluster random sampling method was used to select the participants.
4. Data analysis method:	SPSS software Package 14 was used to analyze the data.
5. Factors associated with happiness:	The age groups, type of occupation, physical activity and place of residence were factors associated with happiness in young persons.

II. Read the introduction of the article and answer the following questions. (6 pts)

1. What is the research territory? (1pt)

Happiness as physical, mental and social well-being. Securing and improving people's health is one of the main goals and priorities of each community. Health is considered as physical, mental and social well-being and not merely the absence of disease or disability.

2. How are the terms "well-being" and "happiness" frequently used in literature? (2 pts)

The term "well-being" frequently used in literature to mean happiness. However, well-being is commonly used in relation to physical factors and happiness used in relation to mental factors.

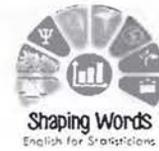
3. What are the main effective factors on human happiness? (2pts)

Gender, income, married status, education level, the job satisfaction, health, promote education and increase knowledge are the main effective factors on human happiness.

4. What is the purpose of the study? (1pt)

The study was conducted to identify the factors influencing happiness among young person in Ilam, Iran during 2014.

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas
II Academic Test: Reading Comprehension
Time allotted: 25 minutes



Total points: 18 pts
Pts. Obt. _____
Score: _____
Percentage: ____ / 10 %

Name _____ Date: _____

Read the abstract, introduction, and methodology of the article “Childhood Obesity Factors and Family Structure on Latino- American Adolescents” in the National Health Information Survey from 2008 to 2015” and do the following exercises.

A. Read the abstract and complete the following chart. (5 pts)

1. Obesity rates among Latino adolescents aged 12-19 years old:	
2. Age of participants in the study:	
3. How data were collected	
4. Period during which data were taken	
5. Female adolescent probabilities of becoming obese:	

B. Read the Introduction. Circle T if the statement is TRUE or F if the statement is FALSE. (6 pts)

- T F A reason why Latino adolescents' obesity rates are high is that they do not participate in extracurricular activities due to economic reasons or language barriers.
- T F Adolescents from high-income families have the highest probabilities of becoming obese.
- T F Asian -American adolescents have the lowest probabilities of becoming obese
- T F The fact that there is little research related to the influence of family structure on body weight establishes the research niche.
- T F Adolescents from stable marriages have a higher risks of becoming overweight.
- T F The purpose of the study is to determine the influence of household structure on obesity in Latino adolescents.

C. Short Answer. Read the methodology. Answer the following questions briefly. (7 pts)

1. What's the study design?

2. What's the sample size?

3. What data collection instrument was used?

4. BMI was used as three types of variables. Which variables was it used?

a. _____, b. _____

c. _____

5. What model was used to analyze the data?

Childhood Obesity Factors and Family Structure on Latino-American Adolescents in the National Health Information Survey from 2008 to 2015

Jeffrey ES^{*}, Banta JE, Modeste NN and Dos Santos H

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Citation: Jeffrey ES, Banta JE, Modeste NN, Dos Santos H (2018) Childhood obesity factors and family structure on Latino-American adolescents in the national health information survey from 2008 to 2015. *J Child Obes* Vol No 3 Iss No: 2: 11.

Abstract

Latinos are the largest minority group in the US and childhood obesity is a huge problem for that group mostly because of the easy access to unhealthy and high-calorie dense foods and lack of opportunities and willingness for exercise. The rates of obesity among Latino adolescents (12-19 years old) are 22.8% which is the higher rates of obesity among all adolescent groups in the country.

We investigated the association between Body Mass Index (BMI) in Latino adolescents and demographical and social factors such as family income, geographic location, parental education, and gender, the language of interview, family size, and household structure. Participants in this research study were Latino adolescents between the ages of 13-17 years who lived with single mothers, single fathers, married, and unmarried couples, step-parent, or with extra adults in the home. Household structure has been shown to be related to childhood obesity in the general population, but data is limited for adolescents and nonexistent for Latinos. Responses from 2008-2015 were collected in the National Health Interview Survey (NHIS) and then multiple NHIS surveys have been combined into one system called the Integrated Health Interview Survey (IHIS) from which we obtained data. Bivariate analysis at first showed some association between household structure and BMI, but in the final model, the association disappeared in favor of the other covariates, mostly education and income. In families with parents who had at least a college degree, children had 48% lower probabilities of becoming obese. Also, after controlling for all the potential confounding variables, females had 18% lower chances of being obese compared to males.

Therefore, interventions to this Latino population should be targeted to increase opportunities for education for Latino parents, incorporating messages about weight management and the importance of having a normal BMI for children.

Keywords: Latinos; Exercise; Body mass index; Obesity; Adolescents

Introduction

According to Ogden [1], 22.8% of Latino adolescents between 12-19 years old are obese, compared to about 19.6% of all Caucasian adolescents. Rates are similar to African American Adolescents (22.6%). One reason for this is that Latino children are less likely to be in after-school activities that involve physical activity, because of issues like cost of participation, transportation and language barriers [2]. Moreover, Perez- Escamilla [3], examined the nutrition and health outcomes in

Latino adolescents and found that obese (i.e., $\geq 95^{\text{th}}$ sex- and age-specific reference BMI percentile) and non-obese children followed a dietary pattern that involved low intakes of fruits and vegetables, coupled with excessive high-fat and high sugar foods and beverages.

Additionally, Singh et al. [4] discovered that from 2003 to 2007, obesity prevalence increased by 10% for all US children; however, it increased by 23%-33% for children in low-education, low-income, and higher unemployment households. Also, Latinos, non-Latino white, and American Indian children had 3.0-3.8 times higher odds or probability of obesity and overweight than Asian children; children from low-income and low-education households had 3.4-4.3 times higher odds or probability of obesity than children from high socioeconomic households [4].

Although there has been some research on the influence of family structure on academic, behavioral, and cognitive outcomes, little research exists on the impact of household structure on physical health factors such as body weight [5]. Household structure is defined by the number and type of adults living with children such as parents, stepparents, and other adults [6]. Children in stable marriage households have healthier BMI due to decreased stress levels and increased emotional support in such mothers compared to single-mother households; similarly, maternal stress, maternal depression, care neglect, and less sensitive mothering contribute to higher BMI and increased risk of obesity in children [5]. Furthermore, the household structure has an impact on the health care and physical outcome of a child; for example, single mothers with asthmatic children use fewer asthma medications and provide worse control of asthma symptoms than two-parent families [7].

Moreover, preschool children raised by cohabiting biological parents (parents who are unmarried, but living together as a couple) had the highest rates of obesity at 31% compared to 15% for children in households with married parents [8]. Similarly, married step-parent households had lower rates of obesity at 15% compared with 31% of unmarried parents who are living together; also, children in single-father household families had a 15% rate of obesity while children in single-mother families had higher rates of obesity at 23% [8]. This could be due to differences in income level between single fathers and single mothers, less stress, and higher social support. There is, however, limited information on the association of household structure on BMI among Latino adolescents in the US.

Method

This study used a cross-sectional design to explore the factors associated with obesity among Latino adolescents in the US. The dataset is from the National Health Interview Survey (NHIS). Multiple NHIS surveys have been combined into one system called the Integrated Health Interview Survey (IHIS). Data were collected via the National Health Interview Survey (NHIS). NHIS contains data from all 50 states in the nation and has a sample size of about 87,000 from approximately 35,000 households per year. The selected adult in each household answered questions about themselves, such as sociodemographic, health behaviors, health status, and healthcare utilization, family cancer history, health education, mental health status, etc. Parents with children also answered some questions regarding one child as well as family characteristics. For example: for living arrangements, they were asked, "Are they a married couple? Are they an unmarried couple? Are the mothers biological or non-biological with children? Are the fathers biological or non-biological with children? Is either of the parent step-parents? Is either of the parents an adoptive parent? Are the parents married or unmarried parents?" All the information from the questionnaire was self-reported.

Participants

Participants were Latino parents with children between 13-17 years old living in households with at least one child, taken from the Integrated Health Interview Survey (IHIS) database, who completed surveys from 2008-2015. However, analyses were focused on children, not the parents. The domains for the definition of Latino included: Hispanic/Spanish origin, Mexican, Mexican-Mexicano, Mexicano, Mexican-American, Chicano, Puerto Rican, Cuban/Cuban-American, Dominican (Republican), Other Hispanic, Central/South American, Other Latin American, and Other Spanish [6]. There were 17,213 completed surveys. However, many of the records did not have valid BMI data, so analysis was restricted to 7,396 youth.

Procedures

Multiple NHIS surveys have been combined into one system called the Integrated Health Interview Survey (IHIS) to facilitate researchers. Data for this analysis were extracted for years 2008 to 2015 from the Integrated Health Interview Survey (IHIS) [6]. The Integrated Health Interview Survey (IHIS) database is accessible online at no cost. The University of Minnesota and Minnesota Population Center owns all the rights to the database. We requested access to the database online and received permission to use it.

Measuring tools

Body Mass Index (BMI) was the dependent variable and already part of the database. BMI was classified as a categorical variable following the reference categories for childhood obesity percentiles from the CDC.

BMI calculations were based on the Centers for Disease Control and Prevention (CDC) [9] categories for childhood obesity percentiles. Obesity was categorized as $\geq 95^{\text{th}}$ percentile. BMI was used as a dichotomous variable and with levels above and below the 95^{th} percentile.

The household structure variable definitions followed a study from the National Center for Health Statistics [10]. The household structure variable definitions are:

- Nuclear: A nuclear family consists of one or more children living with two parents who are married to one another and are each biological or adoptive parents to all children in the family.
- Single mother: A single-mother family consists of one or more children living with a single adult mother.
- Single father: A single-father family consists of one or more children living with a single adult father.
- Cohabiting: A cohabiting family household consists of one or more children living with a biological or adoptive parent and an unrelated adult who are cohabiting with one another.
- Blended: A blended family household consists of one or more children living with a biological or adoptive parent and an unrelated stepparent who are married to one another.
- Extended: An extended-family household consists of one or more children living with at least one biological or adoptive parent and a related adult who is not a parent (example, an adult child, an aunt, uncle, or grandparent).

The other variables used in the study were parental education, geographic region (Northeast, Midwest, West, South), household income level, child gender and age, the language of the parent, and number of children in the household.

Concerning the household structure, the nuclear family was chosen as the reference category based on the guidelines from the National Center for Health Statistics [10]. For education, the categories were less than high school degree, high school graduate, some college/associates degree, and college graduate. The parental education category was based on the highest education of the parent in the house. The reference chosen for parental education was less than High School Diploma.

Geographic location was categorized into four regions of the United States: West, Northeast, Central/Midwest, and South. The reference category for this variable was west.

Additionally, for income, the categories were less than 100% Federal Poverty Level (FPL), 100% to 175% FPL and greater than 175% FPL. The FPL was determined using reported total family income which was compared to the US. Census Bureau poverty thresholds for the year; these thresholds are based on both family size and the number of children under age 18. For example, the FPL for a family size of five including three children under 18 years old is \$28,643.00. The reference category for this analysis was the Less than 100% of the Federal Poverty Level (FPL). The gender variable was the child chosen by the parent. The reference category for gender was Males.

For the language of interview, the categories were English only, Spanish only, and both English and Spanish. For Latinos, there was an option to have the questionnaire in Spanish. These were the options available for language which was used to conduct the interview. For the analysis, English was the reference category. Regarding family size or the number of children in the household, the categories were only 1 child, 2 or 3 children, and 4 or more children [6]. Only 1 Child was the reference category chosen for this variable.

Survey-weighted analyses included descriptive for all the variables comparing obese and non-obese children. Next, individual associations with household structure and BMI were examined. Finally, regression including all variables was done to determine which variables have the greatest association with BMI among Latino children between 13-17 years of age. Missing data were not included in the data for analysis because of non-response to one or more of the questions in the questionnaire about the research study

GLOSSARY

Caucasian: a white person.

Unemployment: (of a person) without a paid job but available to work.

Behavior: the way in which one acts.

Answer Key

A. Read the abstract and complete the following chart. (5 pts)

1. Obesity rates among Latino adolescents aged 12-19 years old:	22.8%
2. Age of participants in the study:	Ages of 13-17 years old
3. How data were collected	NHIS - IHIS
4. Period during which data were taken	2015 -2018
5. Female adolescent probabilities of becoming obese:	18%

B. Read the Introduction. Circle T if the statement is TRUE or F if the statement is FALSE. (6 pts)

- T F A reason why Latino adolescents' obesity rates are high is that they do not participate in extracurricular activities due to economic reasons or language barriers.
- T F Adolescents from high-income families have the highest probabilities of becoming obese.
- T F Asian -American adolescents have the lowest probabilities of becoming obese
- T F The fact that there is little research related to the influence of family structure on body weight establishes the research niche.
- T F Adolescents from stable marriages have a higher risk of becoming overweight.
- T F The purpose of the study is to determine the influence of household structure on obesity in Latino adolescents.

C. Short Answer. Read the methodology. Answer the following questions briefly. (7 pts)

1. What's the study design? Cross-sectional study
2. What's the sample size? 87 000 teenagers from 35 000 households
3. What data collection instrument was used? Questionnaire
4. BMI was used as three types of variables. Which variables was it used?
Dependent, categorical, dichotomous
5. What model was used to analyze the data? Regression Model

Appendix R: Lesson Plans and Materials

Universidad de Costa Rica

PF-0311 Practicum

Prof. Xinia Rodríguez

Lesson Plan #1

Facilitator: Teresita Calderón/ Sandra Rojas O.

Course: Shaping Words



Date: August 13th, 2018

Goal #1: By the end of the unit, the students will be able to successfully show understanding of introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

General Objective: By the end of the lesson, the students will be able to properly identify steps and signposting language used in the moves of an introduction by analyzing excerpts of sample presentations.

Specific Objective: The students will be able to:

1. properly introduce themselves to get to know their partners by sharing information.
2. successfully comment on the importance of talks by answering specific questions.
3. appropriately mention the kind of information involved in each move of a talk by matching headings.
4. correctly identify the main parts of an introduction to a talk by finding the correct parts of an introduction in a jigsaw reading activity.
5. effectively implement the listening for specific details strategy by completing a multiple-choice exercise.
6. accurately evaluate the structure of an introduction by identifying the sections through a checklist.
7. successfully show understanding of simple present structures by completing two mini-conversations.

Obj.	Procedures	Skills	Language Focus	Strategies	Time
1	<p>Routines: Greetings, welcome Ss, introduce the course, check Ss' expectations about the course, give Ss a handout with useful language, write the date and objective, and check attendance.</p> <p>Ice-breaker: Who am I?</p> <ul style="list-style-type: none"> Ss receive a blank piece of paper. In the middle of the sheet, they write their names. Then, they write words, phrases, or draw symbols around their name that characterize them. Ss walk around the class and share some information with their classmates. They switch partners every time they hear a bell. Ss try to find things they have in common with their classmates. Then, they can share some ideas with the whole class. <p>Materials: A bell, paper</p>	L S R W	<p>UL Ice-breaker</p> <p>Tell me about yourself. What kind of <u>music/sports</u>...do you like? I like.../ I am... What do you do in your free time? How about you? We both like <u>to go out</u>.</p>		15 min 15 min
2	<p>Warm up: Why conferences?</p> <ul style="list-style-type: none"> In pairs, Ss answer the following questions: <ul style="list-style-type: none"> What's the importance of attending conferences? Have you attended conferences in English? If so, tell your partner about your experience. If not, would you like to attend conferences in English? Why? Ss share some of the ideas they discussed with the whole class. <p>Materials: ppt</p>	L S R	<p>UL</p> <p>Conferences are important because... Do you agree? Yes, I do/No, I don't Yes, I have/No, I haven't. I haven't attended Conferences in Spanish/English.</p>	Activating prior knowledge	10 min

	<ul style="list-style-type: none"> Have Ss decide the order of each section. Then, they share it with the class. Finally, Ss receive the complete handout so that they can have the different pieces of information together. UL will be written on the board. <p>Materials: Material # 2 and handout #1: Sections of introductions</p>				
5	<p>Pre-task 3: Listening for details</p> <p>Link: T. explains to Ss that when listening, sometimes we need to get specific information for example when you need a specific schedule or name. It also happens when we listen to a talk, it is important to focus on details and specific information regarding the method used, the population or the results obtained.</p> <ul style="list-style-type: none"> Then, T names the strategy and tell Ss to listen to specific details from a video such as name, place of work and topic of a talk. Ss watch a video and they apply the strategy mentioned before. Ss do a multiple-choice exercise about the video. Then, they compare with a partner. Finally, Ss share their answers with the whole class. UL will be written on the board. <p>Materials: Handout # 2 Video: https://www.youtube.com/watch?v=KhAUfqhLakw</p>	L S R W	<p>Vocabulary My name is... I work at... Bayesian Probability Frequentism Regression</p> <p>UL What did you circle in #1? I chose <u>a</u>. What about you? I'm not sure, but I think #... is... I believe #...is...</p>	Listening for specific details	5 min. 10 min
6	<p>Main Task : Identifying parts of an introduction</p> <p>Task: Ss watch a short introduction to a talk. They evaluate if the introduction has the most common</p>	L S R W	<p>Grammar Simple Present</p>	Listening for specific details	5 min.

	<p>sections to guide the audience. They use a checklist. Ss watch the video two times.</p> <p>Planning: In small groups, Ss compare their notes. (Grouping strategy: cards)</p> <p>Reporting: A speaker from each group reports their notes to the class. (Ss choose a partner to be the speaker of the group).</p> <p>Material: Handout # 3 Video</p>		<p>I <u>work</u> at University of Washington in the E- Science Institute. Lots of people <u>talk</u> about...</p> <p>UL I think this part was mentioned. I don't think the speaker mentioned.... What do you think about #1?</p> <p>Reporting We think the speaker... We think the speaker doesn't... The speaker said...</p>		<p>10 min</p> <p>10 min</p>
7	<p>Error correction: Ss receive feedback on their performance during the previous activities.</p> <p>Post-Task:</p> <ul style="list-style-type: none"> • Ss see some examples taken from the video and the material # 2 on a ppt. T asks them what tense the speaker is using (Present, past, future). T elicits ideas and examples from Ss. • Ss receive handout #3 with an explanation about simple present. Then, they complete two mini-conversations with the verbs in parentheses. Then, they will compare with a partner. • UL will be written on the board. • Finally, T and Ss check their answers orally with the whole class. • Ts walk around to listen to Ss and provide any feedback if necessary. 	L S R W	<p>Grammar Simple Present I <u>want</u> to talk and <u>give</u> you a brief discussion. People <u>don't</u> really <u>know</u>... I find in my teaching...</p> <p>UL What did you write in # ___? What do you think about #1? I'm not sure, but I think #1 is correct/incorrect. What about you?</p>		<p>10 min</p> <p>5 min</p> <p>10 min</p>

	<p>Optional: If time, Ss can practice asking their partners questions using simple present. (Family, preferences, place of work, etc.)</p> <p>Materials: Handout # 4</p>				
--	--	--	--	--	--

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Material #1



Methodology	Credentials
Population	Summary of main points
Results	Recommendations
Greeting: Good morning/ good afternoon	Background information
Outline of the presentation	Thank the audience
Graphs	Invite the audience to ask questions
Percentages	



Material # 2

Instructions. Read a part of an introduction to an oral presentation. Then, find three students with the other parts. Work together and share the information.

Welcome Your Audience & Introduction

Start with a warm welcome and introduce yourself. Everyone in the audience will want to know who you are. Your introduction should include your name and job position or the reason you are an expert on your topic. The more the audience trusts you, the more they listen.

Examples:

- Welcome to [name of company or event]. My name is [name] and I am the [job title or background information].
- Thank you for coming today. I'm [name] and I'm looking forward to talking with you today about [your topic].

Capture Their Attention

An attention-getter is the strategy a speaker uses at the beginning of a speech to capture the audience's attention and make them interested in the speech topic. There are several types of attention getters

Examples:

- Did you know that [insert statistical information]?
- Have you ever heard that [insert interesting fact]?
- Before I start, I'd like to share a quick story about [tell your story]...
- The statistician Ronald A. Fisher once said... [insert a quote]

Identify Your Goal or Topic of Presentation

At this stage, you want to be clear with your audience about your objective or goal. Do you want your audience to take action after your talk? Is it a topic everyone is curious about? This should be just one or two sentences and it should be very clear.

Examples:

- Today I'd like to share with you...
- What I want to share with you is...
- My goal today is to help you understand...

-

Outline Your Presentation

This prepares your listeners and helps to get their attention. It will also help them follow your presentation and stay focused. Here are some great phrases to help you do that.

Examples:

- First, I'm going to present... Then I'll share with you... Finally, I'll ask you to...
- The next thing I'll share with you is...
- In the next section, I'll show you...
- Today I will be covering these 3 (or 5) key points...
- In this presentation, we will discuss/evaluate...

Adapted from: <https://www.speakconfidentenglish.com/3-steps-introduction/>



Handout # 1

Introduction Sections

Welcome Your Audience & Introduction

Start with a warm welcome and introduce yourself. Everyone in the audience will want to know who you are. Your introduction should include your name and job position or the reason you are an expert on your topic. The more the audience trusts you, the more they listen.

Examples:

- Welcome to [name of company or event]. My name is [name] and I am the [job title or background information].
- Thank you for coming today. I'm [name] and I'm looking forward to talking with you today about [your topic].

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- The next thing I'll share with you is...
- In the next section, I'll show you...
- Today I will be covering these 3 (or 5) key points...
- In this presentation, we will discuss/evaluate...



Listening for details. Watch the video about someone delivering a talk related to statistics. Choose the option that completes each statement.

1. The speaker's name is _____.
a. Tom b. Jake c. James
2. He works at _____.
a. Washington University b. New York University c. Texas University
3. _____ has table outside to talk about the things they do.
a. Westside Institute b. eScience Institute c. Institute for Public Health
4. The topic of the talk is the divide between Bayesianism and _____.
a. Probability b. Frequentism c. Regression Models



Listening for details. Watch the video about someone delivering a talk related to statistics. Choose the option that completes each statement.

1. The speaker's name is _____.
a. Tom b. Jake c. James
2. He works at _____.
a. Washington University b. New York University c. Texas University
3. _____ has a table outside to talk about the things they do.
a. Westside Institute b. eScience Institute c. Institute for Public Health
4. The topic of the talk is the divide between Bayesians and _____.
a. Probability b. Frequentism c. Regression Models



A. Instructions. Watch the video again and put an X on Yes or No based on the video. Try to complete the section "What did he say?" with your notes.

	Yes	No	What did he say?
1. The introduction clearly shows its parts.			
2. The speaker welcomes the audience.			
3. The speaker introduces himself/herself.			
4. The speaker defines the purpose or topic of the presentation.			
5. The speaker uses an attention getter.			
6. The speaker mentions the main points of his/her presentation. (How does he introduce it?)			

B. Share your notes with classmates. Do you have similar information?

Useful language

I think the speaker welcomes the audience...

I don't think the speaker....

What do you think about #2?

SIMPLE PRESENT TENSE

USE SIMPLE PRESENT TO...

- **say that something happens all the time or repeatedly**
Ex: This is something I find in my teaching that a lot of people have heard of but don't really know...
- **say that something is true in general or permanent**
Ex: I work at Washington University.
- **refer to the future**
Ex: What I want to talk about is...

REMEMBER

- Add -s or -es to the singular verbs or when the subject is **He, She, It**.
Ex: *Ana works at the eScience Institute*

A. Complete the mini-conversations with the correct form of the verb in parentheses.

Mini-conversation 1

A: What (1) _____ (you/do) at the eScience Institute?

B: We (2) _____ (help) researchers and students answer fundamental questions

through the use of large complex data.

A: That (3) _____ (sound) interesting!

A: How (4) _____ (you/do) that?

B: We (5) _____ (teach) researchers how to use data science tools, methods, and best practices in their research.

Adapted from: <http://escience.washington.edu/about-us/>



for Listening SPECIFIC DETAILS

CONCENTRATE ON A SMALL PART OF THE LISTENING TO UNDERSTAND KEY WORDS.

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan #2



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: Aug. 20th, 2018
Course: Shaping Words

Goal #1: By the end of the unit, the students will be able to successfully show understanding of introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

General Objective: By the end of the lesson, the students will be able to properly identify steps and signposting language used in the moves of an introduction by analyzing excerpts of sample presentations.

Specific Objective: The students will be able to:

1. properly share information about themselves to get to know each other better.
2. correctly name the common moves within talks and introductions by answering specific questions.
3. appropriately recognize lexical phrases used in an introduction to a talk by matching them with the corresponding sections.
4. accurately identify signposting language used to introduce each move by listening to a sample introduction.
5. successfully describe statistical concepts related to a talk by matching them with their corresponding definitions.
6. effectively show understanding of the sections of an introduction and signposting language used by completing a chart.
7. successfully use the structure *be going to* by completing a set of statements related to a talk.

Obj.	Procedures	Skills	Language Focus	Strategies	Time
1	<p>Routines: Greetings, write the date and objective, check attendance. Remind Ss about useful language. Check homework (handout #4).</p> <p>Warm-up: Ss will think of two truths and one lie about their life. They can write them if necessary. They will use ideas your partners do not know about. Then, they will share their phrases and their partners must guess what the lie is. T will give them an example.</p>	L S R W	<p>UL</p> <p>I think the lie is... I'm not sure, but I think the lie... It's your turn/my turn</p>		10 min 10 min
2	<p>Schema Activation: What do you recall?</p> <ul style="list-style-type: none"> In pairs, Ss will answer the following question: <ul style="list-style-type: none"> How do you organize a presentation? What kind of information do you include in the introduction? Ss will share some of the ideas they discussed with the whole class. T will walk around monitoring students and checking their ideas. UL will be written on the board. <p>Materials: Material #3: PPT</p>	L S R	<p>Vocabulary</p> <p>-Introduction: Greeting, credentials, outlining the presentation - Body: Background, Population, method, results - Conclusion: summary of main points, final results, thank the audience, and invite questions</p> <p>UL</p> <p>I think people include...in the introduction, body, and conclusion. I remember we need to include an <u>attention getter, credentials...</u> What do you think? I agree/disagree</p>	Activating prior knowledge	10 min
3	<p>Link: Last class we worked on the different sections of a talk and the kind of information we include in introductions. Today we will continue working on the language used in each section.</p> <p>Pre-task #1: Chunks of phrases</p>	L S R	<p>Pronunciation</p> <p>Objective Purpose Goal Statistics</p> <p>UL</p>	Activating prior knowledge	5 min

	<ul style="list-style-type: none"> In groups, Ss will look for sets of envelopes hidden in different parts of the classroom to find different chunks of language used in the sections of introductions. The group that matches the chunks of language with the corresponding sections correctly and finishes first will win. (Grouping strategy: Colors). After finishing checking, in the same groups, Ss will answer two questions written on the board related to the use of signposting language. <i>“What is signposting language? Why is it important?”</i> Then, Ss will share with the whole class. If necessary, T will show Ss a definition with pictures on the board to help them understand the concept better. T and assistant will walk around monitoring Ss, taking notes and helping when necessary. UL will be written on the board. <p>Materials: Material # 4: Envelopes, chunks of language and color letters.</p>		<p>I’m not sure, but I think/believe it is part of the attention getter because... I think this phrase refers to <u>the credentials</u>. How about you? Do you agree?</p> <p>I think signposting language is... It is important because <u>it helps the audience...</u></p>		<p>10 min</p> <p>10 min</p>
4	<p>Link: Last class we had the opportunity to listen to the introduction to a talk. Do you remember the topic?</p> <p>Pre-task #2:</p> <ul style="list-style-type: none"> Ss will receive handout #5 with a script of the talk used last class with some blanks or phrases to circle, depending on the Ss’ proficiency level. First, they will read the introduction. <p>Link: Last class we used a specific listening strategy. Do you remember what it was about? (T will elicit from Ss the name of the strategy or name it herself. Then, T will show Ss the definition used last class).</p> <ul style="list-style-type: none"> Second, they will listen to the introduction once to complete the blanks. Then, they will compare with a partner. Next, they will listen a second time to check their answers. Then, Ss will share with the whole class. 	L S R W	<p>Pronunciation Bayesian Frequentism</p> <p>UL I think the speaker uses ... to outline the presentation. The speaker uses the phrase.... What’s your opinion? I agree/disagree with you</p>	Listening for specific details	<p>5 min</p> <p>5 min</p> <p>5 min</p> <p>10 min</p>

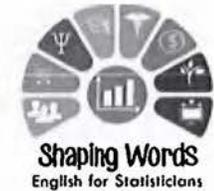
	<ul style="list-style-type: none"> T and assistant will walk around monitoring Ss and helping if necessary. UL will be written on the board. <p>Materials: Handout # 5A and 5B/ Material #5: https://www.youtube.com/watch?v=KhAUfqhLakw</p>				
5	<p>Link: In order to learn about talks and introductions, we need to continue working on examples, but we also need to learn some vocabulary.</p> <p>Pre-task# 3</p> <ul style="list-style-type: none"> In pairs or small groups, Ss will receive a phrase. They will try to come up with a possible definition of the phrase if necessary they can look it up in their dictionaries. T will tell Ss that sometimes they will need to explain complex concepts in a simple way. (Remind Ss of the strategy Circumlocution mentioned last class. T will give an example and the assistant will guess the word to remind Ss about the way the strategy works) Next, they will pair up with another pair or group to exchange possible meanings. In the same groups, they will receive handout # 6 with some words and phrases plus their definitions. They will read them and match them. Ss will negotiate meaning by sharing their opinions. Finally, they will compare with the whole class. T and assistant will walk around monitoring Ss and helping when necessary. UL will be written on the board. <p>Bonus question: Based on the vocabulary, what do you think the talk might be about?</p> <p>Materials: Handout # 6/ Material # 6: Phrases</p>	L S R	<p>Vocabulary Statistical inference Hypothesis testing Effect size Reliable Results Quantifying the precision Conventional statistics</p> <p>UL I think it means... I agree/disagree with you because... I'm not sure, but I think it refers to... I believe it is about... What do you think <u>effect size</u> is?</p>	Negotiating meaning	5 min 10 min 10 min
6	<p>Main Task:</p> <p>Task: Ss will listen to an introduction to a talk. They will pay attention to the different sections of the introduction in order to</p>	L S R W	<p>Vocabulary Statistical inference Hypothesis testing Effect size</p>	Listening for specific details	5 min

	<p>write the signposting language used in each section on handout #7A or 7B depending on Ss' proficiency level.</p> <p>Planning: In small groups, Ss will compare their notes.</p> <p>Reporting: A speaker from each group will report to the class their notes about the specific section. (Ss will choose a partner to be the speaker of the group).</p> <p>UL will be written on the board. T and assistant will walk around monitoring Ss, taking notes and helping when necessary.</p> <p>Follow-up: Ss will answer the following questions: 1. <i>Was the signposting language useful to guide the audience?</i> 2. <i>Was the presentation clear enough so that the listeners could follow the information?</i></p> <p>Materials: Material # 7: https://www.youtube.com/watch?v=He9MCbs1wqE Handout # 7A and 7B</p>		<p>Reliable Results Quantifying the precision Conventional statistics</p> <p>UL</p> <p>What did you write in the attention getter section? I wrote... What about you? The conference is about... The speaker used the phrase... to outline the talk.</p> <p>The use of signposting was... The presentation was (not) clear because...</p>		<p>10 min</p> <p>5 min</p> <p>5 min</p>
7	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post-Task:</p> <ul style="list-style-type: none"> Ss will read some examples used by the speaker on the board or ppt. T will ask them what tense the speaker is using (Present, past, future). T will elicit ideas and examples from Ss. Ss will receive handout # 8 with an explanation about <i>be going to</i>. Then, they complete a set of sentences with the verbs in parentheses. Then, they will compare their answers with a partner. UL will be written on the board. Finally, T and Ss will check the answers with the whole class. 	L S R W	<p>Grammar</p> <p>Be going to used to express intention and plans <u>I'm going to divide</u> my talk in four sections My primary topic today <u>is going to be</u> about...</p> <p>UL</p> <p>What did you write in #1? What do you think about #1? I'm not sure, but I think #1 is correct/incorrect What about you?</p>		<p>10 min</p> <p>10 min</p> <p>10 min</p>

	<ul style="list-style-type: none">• Ts will walk around to listen to Ss and provide any feedback if necessary. <p>Materials: Handout # 8</p>				
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Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

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Pre task #1 / Material #4
 Phrases for envelopes



Thank you for coming today...	Before I start, I'd like to share a quick story about ...
My purpose/objective/aim today is...	Today I'd like to share with you...
This talk is divided into four main parts...	What I want to share with you is...
The primary topic today is...	My goal today is to help you understand...
We are going to talk about three big pieces of...	First, I'm going to present... Then, I'll share with you...
Did you know that...?	In the next section, I'll show you...
Finally, I'll ask you to...	Today I will be covering these 3 (or 5) key points...
The next thing I'll share with you is...	In this presentation, we will discuss/evaluate
Greeting the audience and introduction	Capture the audience's attention
Identify Your Goal or Topic of Presentation	Outline Your Presentation



Pre task #1 / Material #4 Answer Key

Greeting the audience and introduction	Thank you for coming today...
Capture the audience's attention	<ul style="list-style-type: none"> • Before I start, I'd like to share a quick story about ... • Did you know that...?
Identify Your Goal or Topic of Presentation	<ul style="list-style-type: none"> • My purpose/objective/aim today is... • What I want to share with you is... • The primary topic today is... • My goal today is to help you understand... Today I'd like to share with you... • In this presentation, we will discuss/evaluate...
Outline Your Presentation	<ul style="list-style-type: none"> • This talk is divided into four main parts... • We are going to talk about three big pieces of... • First, I'm going to present... Then, I'll share with you... • In the next section, I'll show you... • Today I will be covering these 3 (or 5) key points... • The next thing I'll share with you is...

I. Listen to the talk and complete it with the missing information.

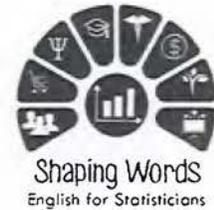
Hello, thank you I'm glad to be here so my name is Jake.

I work at University of Washington in the eScience Institute, and we'll have a table outside to talk about the kinds of things we're doing... it's really really some exciting work and (1) _____

_____ is this kind of divide in statistics between Frequentism and Bayesianism. This is something I find in my teaching that a lot of people have heard of but don't really know and from my own experience I remember as a grad student kind of hearing these words. And I even took a course in computational physics where the professor's spent a whole day now telling us about the differences and at the end of the day I had no idea what the differences were, right.

So (2) _____ is to kind of to go through basically the essential differences of what Frequentist and Bayesian statistics are. You know it's just this kind of divide in the statistics world that lots of people talk about but (3) _____ don't know not a lot of people know exactly what the whole issue is.

And I (4) _____ the some of the tools available that allow you to do Frequentism and Bayesian analysis in Python. And then also being who I am it's all going to be thinly veiled argument to tell you why you should be a Bayesian, so get ready for that



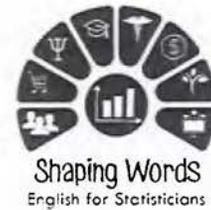
I. Listen to the talk and underline the correct option to complete the talk.

Hello, thank you I'm glad to be here so my name is Jake.

I work at University of Washington in the eScience Institute and we'll have a table outside to talk about the kinds of things we're doing it's really really some exciting work and **(1. today I what want to share with you / I wanted to talk about today)** is this kind of divide in statistics between Frequentism and Bayesianism. This is something I find in my teaching that a lot of people have heard of but don't really know and from my own experience I remember as a grad student kind of hearing these words. And I even took a course in computational physics where the professor's spent a whole day now telling us about the differences and at the end of the day I had no idea what the differences were right.

So **(2. my goal here in this talk / the purpose of this talk)** is to kind of to go through basically the essential differences of what frequentist and Bayesian statistics are. You know it's just this kind of divide in the statistics world that lots of people talk about but in my experience don't know not a lot of people know exactly what the whole issue is.

(3. And this talk is divided in three main parts /And I want to talk and give you a brief discussion of the some of the tools available) that allow you to do Frequentism and Bayesian analysis in Python. And then also being who I am it's all going to be thinly veiled argument to tell you why you should be a Bayesian, so get ready for that too.



ANSWER KEY

Hello, thank you I'm glad to be here so my name is Jake.
I work at University of Washington in the eScience Institute and we'll have a table outside to talk about the kinds of things we're doing it's really really some exciting work and **I wanted to talk about today** is this kind of divide in statistics between Frequentism and Bayesianism. This is something I find in my teaching that a lot of people have heard of but don't really know and from my own experience I remember as a grad student kind of hearing these words. And I even took a course in computational physics where the professor's spent a whole day now telling us about the differences and at the end of the day I had no idea what the differences were right.
So my goal here in this talk is to kind of to go through basically the essential differences of what frequentist and Bayesian statistics are. You know it's just this kind of divide in the statistics world that lots of people talk about but **in my experience** don't know not a lot of people know exactly what the whole issue is. **And I want to talk and give you a brief discussion of the some of the tools available** that allow you to do Frequentism and Bayesian analysis in Python. And then also being who I am it's all going to be thinly veiled argument to tell you why you should be a Bayesian, so get ready for that too.



Pre-task #3
Material #6 Terms to be defined by Ss



Statistical Inference

Hypothesis Testing

Effect Size

Reliable Results

Quantifying Precision

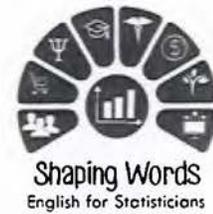
Conventional Statistics



Statistical Terms Defined

Match the word to its corresponding definition.

<p>1. Statistical Inference</p>	<p><input type="checkbox"/> Accuracy is how close a measurement comes to another measurement. You can calculate it using different methods, including range of values and average deviation.</p> <p>Adapted from https://sciencing.com/calculate-precision-6186008.html</p>
<p>2. Hypothesis testing</p>	<p><input type="checkbox"/> Most commonly the difference between the control group and experimental group population means of a response variable divided by the assumed common population standard deviation. It is simply a way of quantifying the size of the difference between two groups</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>3. Effect size</p>	<p><input type="checkbox"/> The task of summarizing statistical data in conventional forms (also known as descriptive statistics).</p> <p>Adapted from Statistical_theory at Wikipedia</p>
<p>4. Reliable results</p>	<p><input type="checkbox"/> The process of making conclusions about the nature of some systems based on data subject to random variation.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>5. Quantifying the precision</p>	<p><input type="checkbox"/> A general term for the procedure of evaluating if sample data is consistent or not with a statement made about the population.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>6. Conventional statistics</p>	<p><input type="checkbox"/> The extent to which repeated measurements on units (for example people) produce similar results.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>



ANSWER KEY

<p>Statistical Inference</p>	<p>The process of making conclusions about the nature of some systems based on data subject to random variation.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>Hypothesis testing</p>	<p>A general term for the procedure of evaluating if sample data is consistent or not with a statement made about the population.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>Effect size</p>	<p>Most commonly the difference between the control group and experimental group population means of a response variable divided by the assumed common population standard deviation. It is simply a way of quantifying the size of the difference between two groups</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>Reliable results</p>	<p>The extent to which repeated measurements on units (for example people) produce similar results.</p> <p>Adapted from Cambridge Dictionary of Statistics</p>
<p>Quantifying the precision</p>	<p>Accuracy is how close a measurement comes to another measurement. You can calculate it using different methods, including range of values and average deviation.</p> <p>Adapted from https://sciencing.com/calculate-precision-6186008.html</p>
<p>Conventional statistics</p>	<p>The task of summarizing statistical data in conventional forms (also known as descriptive statistics)</p> <p>Adapted from statistical theory at Wikipedia</p>



I. Listen to an introduction to a talk about computational statistics. Next to each section, write down the phrases or words that the speaker uses.

Greeting	
Introduction	
Attention-getter	
Topic and purpose	
Outline of the main points	

II. Get in pairs and compare your notes.

Useful Language

- What did you write in the attention getter section?
- I wrote...
- What about you?
- The conference is about...
- The speaker used the phrase...to outline the talk.



I. Listen to an introduction to a talk about computational statistics. As you listen, complete the statements with the missing information.

Greeting:	_____ to Computational Statistics.
Introduction:	I'm Allen Downey. I teach at Olin College in _____. It's a new engineering school. I teach _____ and I also teach an approach to _____ that is a little bit different and that is _____
Attention-getter:	I'm giving you a warning that _____ some things that are nonstandard ... kind of contradicts _____ wisdom in _____
Topic and purpose	But _____ is statistical inference, which is working from a sample of the _____ and trying to estimate something about the world
Outline of the main points	We _____ about three big pieces of that... <ul style="list-style-type: none"> • effect of size, • quantifying precision • hypothesis testing

II. Get in pairs and compare your notes.

Useful Language

- What did you write in the attention getter section?
- I wrote...
- What about you?
- The conference is about...
- The speaker used the phrase...to outline the talk.



ANSWER KEY

I. Listen to an introduction to a talk about computational statistics. Next to each section, write down the phrases or words that the speakers uses.

Greeting:	Welcome to Computational Statistics
Introduction:	I'm Allen Downey. I teach at Olin College in Boston. It's a new engineering school. I teach Bayesian statistics...and I also teach an approach to conventional statistics that is a little bit different and that is what I'm going to inflict on you all today.
Attention-getter:	I'm giving you a warning that I'm going to say some things that are nonstandard that kind of contradicts conventional wisdom in statistics
Topic and purpose	But the primary topic today is statistical inference, which is working from a sample of the population and trying to estimate something about the world
Outline of the main points	<p>We are going to talk about three big pieces of that...</p> <p>effect of size</p> <p>quantifying precision</p> <p>hypothesis testing</p>

BE GOING TO

A. Analyze the information in the following chart.

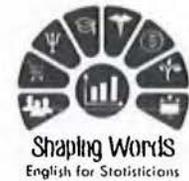
am/ is/ are going to + verb
<p><i>Be going to</i> is used to express an intention or a plan before you do it. You have decided to do something, so your intention is to do it. Use this form when describing your goal and outlining your presentations.</p>
<p><u>Examples:</u></p> <ul style="list-style-type: none">• I also teach an approach to conventional statistics that is a little bit different and that is what I'm going to explain on you all today.• I am going to say things that are non-standard.• We are going to talk about three big pieces of that.• However, I am not going to refer to regression models.

B. Complete the sentences with the correct form of be going to.

1. I _____ (present) a talk about Regression models.
2. You _____ (not/learn) about Big Data today.
3. They _____ (not/describe) the population size in great detail.
4. I _____ (use) a non-random sampling technique.
5. The speaker _____ (illustrate) the deviation of the data.
6. I _____ (mention) a quantitative variable in my study.

C. Compare your sentences with a partner.

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan #3



Facilitator: Teresita Calderon Q.
Assistant: Sandra Rojas O.

Date: Aug. 27th, 2018
Course: Shaping Words

Goal #1: By the end of the unit, the students will be able to successfully show understanding of introductions to talks at conferences within their own field by identifying the main sections, connectors, and relevant ideas.

General Objective: By the end of the lesson, the students will be able to effectively show understanding of key points delivered in an introduction to a talk by taking notes.

Specific Objective: The students will be able to:

1. properly describe their plans for the week by answering a question using the structure *–be going to*.
2. accurately identify signposting language by arranging a text in a logical order.
3. successfully apply the strategy note-taking by writing specific information from an introduction to a talk.
4. appropriately demonstrate understanding of the meaning of specific words by matching them with their corresponding synonym.
5. correctly identify the main ideas of a segment of an introduction by answering two questions.
6. successfully show understanding of the content of an introduction by taking notes of specific details.
7. correctly produce the contracted forms of verb phrases by practicing mini-conversations.
8. correctly discriminate statements in reduced speech by choosing the correct option.

Obj.	Procedures	Skills	Language Focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance. Remind Ss about useful language.	L R			5min
1.	<p>Warm-up: What are you doing this week?</p> <p>Link: Remind Ss that last week we studied the structure <i>be going to</i> talk about future plans and intentions.</p> <ul style="list-style-type: none"> • T. gives Ss a handout with the days of the week. • Ss walk around the class and ask different classmates what they are going to do on a specific day of the week. • They should include only one activity per student. • Ss report their answers to the class. • UL will be written on the board. <p>Material: Handout # 9</p>	S L R W	<p>Grammar</p> <p>Be going to</p> <p><i>I'm going to play video games</i></p> <p><i>I'm going to go to university.</i></p> <p><i>I'm going to study for a test.</i></p> <p><i>I'm going to do homework.</i></p>		15 min
2.	<p>Schema activation: Signposting Language</p> <p>Link: Remind Ss that last class we studied the importance of signposting language. Show Ss a picture to help them visualize the concept.</p> <ul style="list-style-type: none"> • Ss work in groups of three. (Grouping technique: candies) • T. gives Ss a script of an introduction cut out in strips of paper. • Ss have to read the strips of paper and arrange the text in a logical order. 	R L S W	<p>UL</p> <p><i>I think this is the attention getter...</i></p> <p><i>What do you think?</i></p> <p><i>I think that this part goes here.</i></p> <p><i>I think this is the outline.</i></p>	Activating prior knowledge	15 min

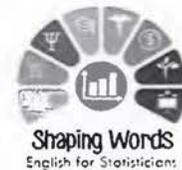
	<ul style="list-style-type: none"> • Ss underline the signposting language that helped them organize the text. • The group that finishes first gets a prize. • UL will be written on the board. • Ts walk around monitoring Ss and helping when necessary. <p>Materials: Material # 9</p>				
3.	<p>Pre-task 1: Note-taking</p> <p>Link: Now that you can identify the signposting language and its purpose, we are going to continue with the content of an introduction. A strategy that can help us understand the content is note taking.</p> <p>Ask Ss the following two questions:</p> <ul style="list-style-type: none"> • <i>What is note-taking?</i> • <i>When do you take notes?</i> • <i>What kind of information do you include?</i> • T elicits answers from Ss and shows them a definition and a poster. • Ss watch a short video and take notes freely on a piece of paper. • Ss get in groups of three and compare their notes. Then, they watch the video again and answer some questions about the video. • Ss compare their answers again. Then, they discuss if they agree or disagree with the speaker and why. • UL will be written on the board. • Ts walk around monitoring Ss, taking notes and helping when necessary. <p>Materials: Handout # 10</p>	L S W	<p>UL</p> <p><i>I think it is...</i> <i>I take notes when...</i> <i>Some of the information I include is...</i> <i>I usually pay attention to...</i></p> <p><i>I wrote that...</i> <i>What did you write?</i> <i>I didn't hear that part.</i></p> <p><i>I agree with him because...</i> <i>I disagree because...</i></p>	<p>Note-taking</p> <p>Lowering anxiety</p>	<p>10 min</p> <p>15 min.</p>

	<p>Material # 10 Video: https://www.youtube.com/watch?v=BhMKmovNjvc</p>				
4.	<p>Pre-task 2: Vocabulary for the main task</p> <p>Link: Now we are going to review some vocabulary that you need to know to do another listening exercise.</p> <ul style="list-style-type: none"> Ss work individually. Ss match the underlined words in the sentences to the words in the box. Ss get in pairs and compare their answers. UL will be written on the board. <p>Materials: Handout # 11</p>	R S L	<p>Pronunciation Utilize- Utilizing Graduate Consultant Suboptimal</p> <p>UL <i>I think this word means...</i> <i>What do you think?</i> <i>I think so</i> <i>I don't think so</i> <i>These two words match/don't match</i></p>	Guessing meaning from context	15 min
5.	<p>Pre-task 3: listening for the gist, main ideas</p> <p>Link: When we listen to a conference or talk, we need to understand main ideas and specific details. Today we will focus on trying to understand main ideas.</p> <ul style="list-style-type: none"> Ss watch the first segment of a video. Then, take notes on what the talk is going to focus on by answering two questions. Then, Ss compare their notes. UL will be written on the board. T and assistant walk around monitoring and helping Ss when necessary. <p>Materials: Handout # 12 Material # 11</p>	L R W	<p>UL What did you write in the first questions? I wrote that... What about you? I think she said...</p>	Listening for main ideas Lowering anxiety	15 min

	Video https://www.youtube.com/watch?v=be2wuOagIFY&t=156s				
6.	<p>Main Task: Note-taking and listening for specific ideas.</p> <p>Task: Ss listen to an introduction to a talk. They pay attention to specific details of the talk and take notes. Ss will listen to the talk 3 times.</p> <p>Planning: Ss work in groups and compare their answers. (Grouping strategy: cards)</p> <p>Reporting: A speaker from each group reports their notes to the class. (Ss choose a partner to be the speaker of the group).</p> <p>UL will be written on the board. T and assistant walk around monitoring and helping Ss when necessary.</p> <p>Materials: Handout # 13 Material # 12: Video https://www.youtube.com/watch?v=be2wuOagIFY&t=156s</p>	L S R W	<p>UL</p> <p><i>What did you write? I wrote... Could you repeat please? I didn't understand that part.</i></p>	<p>Listening for specific details</p> <p>Note-taking</p>	<p>5 min</p> <p>10 min</p> <p>10 min.</p>
7.	<p>Error correction: Ss will receive feedback on their performance.</p> <p>Post-task: Recognize contractions in reduced speech – language focus.</p> <ul style="list-style-type: none"> Ss analyze some examples from a ppt slide. Ss provide more examples of contracted forms. Ss go back to handout # 14 to read the examples 	L S R W	<p>Useful Language</p> <p><i>I start... Now, it's your / my turn... Can you repeat please? Let me try again.</i></p>		10 min

	<p>again and practice them with a partner.</p> <ul style="list-style-type: none"> • Then, they write the contracted form of some sentences. After this, they take turns to read the mini-conversations and the contracted forms. Then, they switch roles. • UL will be written on the board. • Finally, T and Ss check with the whole class. • Ts walk around listening to Ss and providing feedback if necessary. <p>Materials: Handout # 14</p>				15 min
8.	<p>Link: Tell Ss that listening comprehension is difficult because native speakers put all words together when they speak fast, as they do with contractions. Learning to recognize these forms helps us understand spoken language better.</p> <ul style="list-style-type: none"> • Ss are given a handout with eleven sets of statements taken from the talk they watched in the main task. • Ss listen to a native speaker read aloud those statements, so they choose the statement they hear. • They compare their answers with a partner. Then, Ss check their answers with the whole class. • Finally, they take turns reading the sentences aloud. <p>Materials: Handout # 15 Audio recorded by Roni Rux</p>	L S R	<p>Useful Language <i>I start...</i> <i>Now, it's your / my turn...</i> <i>Can you repeat please?</i> <i>Let me try again.</i></p>		10 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language



Warm-up

Handout # 9

What are you going to do this week?

Walk around the class. Ask four different classmates what they are going to do during the week and write it down.

A: *What are you going to do on* _____ *?*
 B: *I'm going to* _____.

Classmate	Tuesday	Wednesday	Thursday	Friday	Saturday
1.					
2.					
3.					
4.					



Warm-up

Handout # 9

What are you going to do this week?

Walk around the class. Ask four different classmates what they are going to do during the week and write it down.

A: *What are you going to do on* _____ *?*
 B: *I'm going to* _____.

Classmate	Tuesday	Wednesday	Thursday	Friday	Saturday
1.					
2.					
3.					
4.					

Schema Activation

Organizing a text



Welcome to Computational Statistics I'm Allen Downey. I teach at Olin College which is just outside of Boston. It's a new engineering school. We just started up 15 or 20 years ago. I've lost track now.

Our mission is to fix engineering education, and I'm working on some parts of that related to data science so I teach Bayesian Statistics, and I also teach an approach to Conventional Statistics that is a little bit different and that is what I'm going to inflict on you all today.

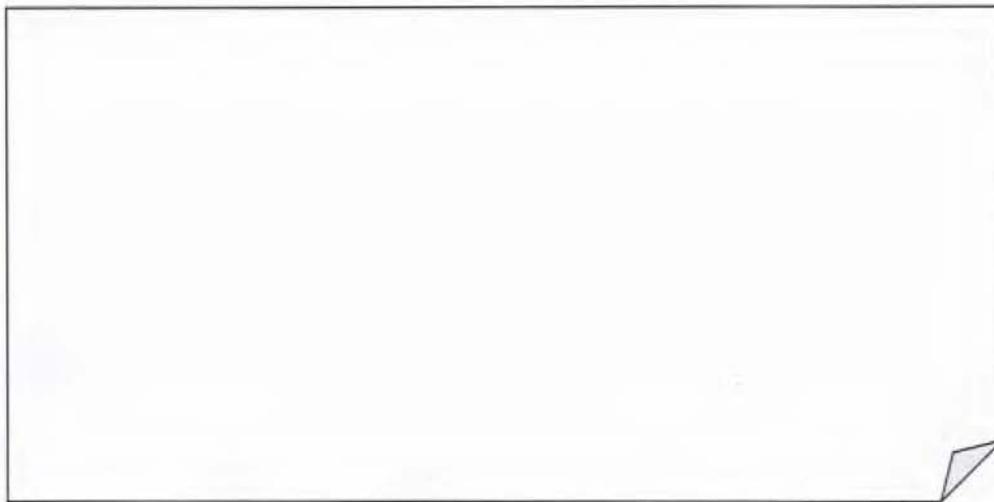
So I'm giving you a warning that I'm going to say some things that are non-standard...that kind of contradict conventional wisdom in Statistics but in a way that I think is better than Conventional Statistics. So bear with me... if you have any questions maybe toward the end I can talk a little bit about what I'm doing and why it's different from the norm.

But the primary topic today is Statistical inference which is working from a sample of a population and trying to estimate something about the world.

We're going to talk about three big pieces of that which are estimating the size of an effect, quantifying the precision of your estimate and then doing hypothesis testing. We'll talk about what of those three things are.

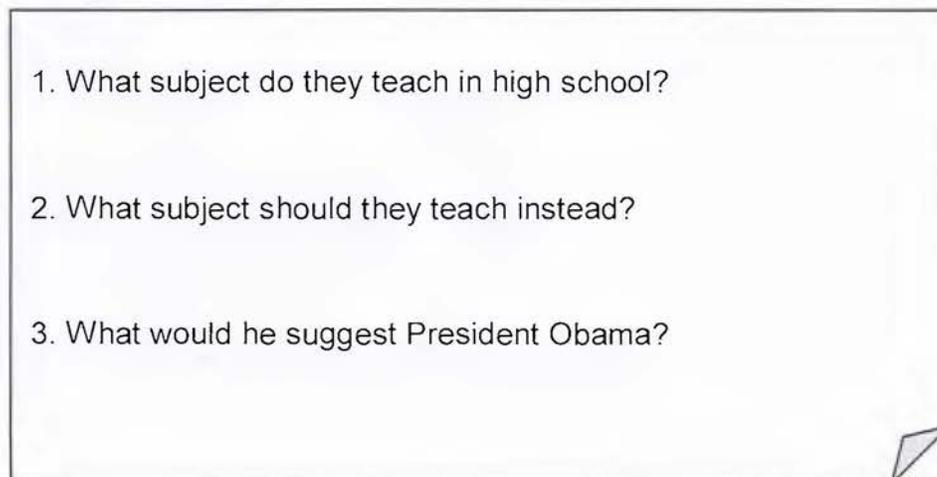
Pre-task# 1

I. Individually, listen to the speaker and take notes in the space below.



II. Compare your notes with a classmate. Write down words or information you did not write.

III. Listen again and focus on the following information.



1. What subject do they teach in high school?
2. What subject should they teach instead?
3. What would he suggest President Obama?



Pre-task: 2

A. Read the following sentences. Pay attention to the underlined bold words to match them with a possible synonym. Then, compare with a partner.

1. Statistics has become **wild**. There is no one who can analyze or interpret it. _____
 2. He is working as a **consultant** at INEC providing special training and advice. _____
 3. The coming conference will have a **topic expert** on the field of Big Data. _____
 4. Our latest project shows **suboptimal** results as they do not meet the standard. _____
 5. Mark is **utilizing** this formula $CV = \frac{\text{Standard Deviation}}{\text{Arithmetic mean}}$ to obtain the coefficient of variation *Arithmetic mean*. _____
 6. The government grants scholarships to the best **university students**. _____
 7. There are possible factors to improve; **nonetheless**, we feel it's a great research project. _____
 8. The selected population **scared me off** as it was more than I expected to include in my study. _____
- a. college student
 - b. intimidated
 - c. uncontrolled
 - d. however
 - e. subject matter expert
 - f. advisor
 - g. below standard



A. Read the following sentences. Pay attention to the underlined bold words to match them with a possible synonym. Then, compare with a partner.

1. Statistics has become **wild**. There is no one who can analyze or interpret it. _____
 2. He is working as a **consultant** at INEC providing special training and advice. _____
 3. The coming conference will have a **topic expert** on the field of Big Data. _____
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- a. college student
 - b. intimidated
 - c. uncontrolled
 - d. however
 - e. subject matter expert
 - f. advisor
 - g. below standard

Pre-task # 3

A. Watch a segment from a talk called “*Everything wrong with statistics (and how to fix it)*”. Listen carefully and take notes in the charts below.

What is she going to talk about?



What example did she use?



Pre-task # 3

Handout # 12

A. Watch a segment from a talk called “*Everything wrong with statistics (and how to fix it)*”. Listen carefully and take notes in the charts below.

What is she going to talk about?



What example did she use?

Main task

I. Watch the video. Then, complete the information that is missing.

Segment 1.

- The speaker _____ to cover everything wrong with Statistics.
 - The talk will take _____.
 - Based on her experience as a consultant, she's going to talk about _____, which is what happens to statistics when there are _____ in the room.
9. Typically there's _____ in the room.

Segment 2.

10. The speaker has been doing statistical consulting for _____.
11. Something that happens a lot to _____ is that some subject matter expert _____ or _____ or what-have-you will go out and will collect _____
12. Then, they'll do _____ to it, then, they show them to the consultant and ask for her opinion.
13. When people ask her what she thinks about the statistics that they did, she usually answers _____, and sometimes they do better than she would've done.

Segment 3.

- The question she has been thinking about for the last few years and the point that she's going to try to make in this talk is that even though some people have not studied statistics they are extremely successful in applying _____
_____ to their own work.

II. Compare your answers with a classmate.



Post-task

Handout # 14

Reduced speech

It refers to the way that native speakers compact words together. One form of reduced speech is contractions. They are formed by combining two words, using an apostrophe (') to join them. The apostrophe replaces any missing letters. For instance, **I am** becomes **I'm**. (<http://www.englishlessonsbrighton.co.uk/contractions/>)

A. Check the examples below.

I'm not actually going to...	I am not actually going to...
There's typically not a statistician in the room.	There is typically not a statistician in the room.
If you've ever practiced statistics...	If you have ever practiced statistics...
They'll ask me what I think...	They will ask me what I think...
The question I've been thinking about for the last few years is...	The question I have been thinking about for the last few years is...
People who don't have 2 to 5 years of undergraduate studies...	People who do not have 2 to 5 years of undergraduate studies...

C. Write the contracted form on the space provided. Then, practice the mini-conversations with a partner. Pronounce the contracted forms correctly.

- A:** What are you doing?
B: I am _____ studying for a statistics test.
- A:** Have you ever practiced statistics?
B: Of course, I have _____ been a statistician for 10 years.
- A:** Would you use a non-random population in your study?
B: Actually, I would _____ use a random population.
- A:** I have _____ been thinking about conducting a research project on demographics. Would you help me?
B: Of course, I would _____ be glad.
- A:** I am _____ stressed out. I have not _____ finished my report.
B: Do not _____ worry. I will _____ help you!

Post Task

Reduced Speech

I. Choose the statement that you hear.

1. a) Thank you Paul for coming now here today...
b) Thank you all for coming out here today...
2. a) I'm not actually going to go over everything wrong with statistics.
b) I'm not actually going to cover everything wrong with statistics.
3. a) We could only get the room for an hour.
b) We could only stay in the room for an hour.
4. a) If you've ever analyzed statistics...
b) If you've ever practiced statistics...
5. a) I've been doing statistical analysis on and off.
b) I've been doing statistical consulting on and c
6. a) They'll do statistics to it and then they'll bring it to me.
b) They'll apply statistics to it and then they'll give it to me.
7. a) I think they ought've talked to me sooner.
b) I think they ought've told me sooner.
8. a) There is a stream of people...
b) There've been a stream of people...
9. a) Great job, that's what I would do...
b) Great job, that's what I would've done...
10. a) There are certain habits of mind..
b) There are many lapses of time...
11. a) People who perhaps have 25 years of graduate studies in statistics...
b) People who perhaps don't have 2

II. Work in pairs. Take turns to practice saying the sentences aloud.

Unit 1: What are conferences about?

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 4



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: September 3rd, 2018
Course: Shaping Words

Goal #2: By the end of the unit, the students will be able to interact effectively with presenters and participants in English when attending conferences by using appropriate structures, register, and vocabulary.

General Objective: By the end of the lesson, the students will be able to effectively interact with other conference participants during breaks by introducing themselves, exchanging pieces of information, and commenting on topics, based on the subjects or a research study being presented.

Specific Objectives: The students will be able to:

1. successfully ask questions to their partners by playing the game Can't say Yes or No.
2. appropriately identify advantages of networking by answering specific questions.
3. effectively mention ways to introduce themselves to other people by brainstorming ideas.
4. properly exchange personal information with other participants by using simple conversation questions.
5. correctly perform a short dialogue by using a sample conversation and specific roles.
6. successfully interact with other participants at a conference break by using appropriate questions and formal language.
7. effectively produce rising and falling intonation when asking questions by practicing simple conversation questions.
8. successfully apply the strategies listening for specific details and listening for main ideas by completing a short quiz.

Obj	Procedures	Skills	Language Focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.	L R			5 min
1	<p>Warm-up: Can't say Yes or No.</p> <ul style="list-style-type: none"> Ss will receive three bills. They will stand up to take turns asking questions to their partners; however, they can't answer Yes or No. If they do, they will pay a bill to their partner. The person who gets more money will be the winner. (T will encourage Ss to ask questions related to their jobs or studies) Ts will circulate around listening to Ss' question structures and intonation. <p>Materials: Material # 10: Bills</p>	L S	<p>Grammar Question formation</p> <p>Intonation Rising/falling</p> <p>UL Are you...? Have you ever...? Do you like...? Can you...? It's my turn/your turn.</p>	Questioning	10 min
2	<p>Link: We have been talking about attending conferences as members of the audience and today we will focus on interacting with other participants.</p> <p>Schema Activation: Networking</p> <ul style="list-style-type: none"> Ss will answer the following questions: <ul style="list-style-type: none"> Do you think this type of events is a good way to <u>network</u> and make new professional contacts? T will ask Ss if they are familiar with the term "Networking" and introduce it if necessary. What do you think the advantages of networking are? 	L S R W	<p>Vocabulary Networking Make connections Improve your career</p> <p>UL I think the most important advantage is... What do you think about <u>networking</u>? What's your point of view? I agree/disagree with you.</p>	Activating prior knowledge	5 min

	<ul style="list-style-type: none"> • UL for interaction will be written on the board. • Ts will walk around to monitor Ss and provide help if necessary. • Ss will check with the whole class. 		Another advantage is <u>to socialize</u> .		
3	<p>Link: When attending conferences or related events, should our interaction be formal or informal?</p> <p>Pre-task 1: Meeting for first time!</p> <ul style="list-style-type: none"> • T will ask Ss "How do you introduce yourself when meeting someone for first time? What do you say?" In pairs, Ss will brainstorm ideas. Then, Ss will share with the whole class. • In pairs, Ss will practice introducing each other using an appropriate greeting. • Ts will walk around to check Ss' performance by taking notes. • UL will be written on the board. <p>Material: PPT</p>	L S R W	<p>Vocabulary</p> <p>Hi/Hello! What's up? Good morning/afternoon/evening How are you? I'm fine, thanks. And you? I'm doing fine. What about you? I'm...from... I don't think we have met before.</p> <p>UL</p> <p>How do you introduce yourself? I usually say... And you? First, I say...and then I... How about you? I agree/disagree with you.</p>	Activating background knowledge	10 min
4	<p>Link: After greeting, how do you start a conversation? What kind of questions do you ask?</p> <p>Pre-task #2: Asking others</p> <ul style="list-style-type: none"> • In pairs, Ss will brainstorm the most appropriate questions they can ask to start a conversation with other colleagues. They will think of possible questions regarding country, job, place of work, and area of specialization. Ss will share with the whole class. • Ss will receive handout # 16 with a list of possible questions they can use to introduce themselves. 	L S R W	<p>Vocabulary</p> <p>Where do you work? I work in/at... What's your name? Where are you from? I'm from... What's your area of specialization? What do you do? I'm a/an....</p> <p>UL</p> <p>I usually say... What questions do you ask? / ask... I think a possible question is...</p>	Using Active Listening (back channel cues)	5 min

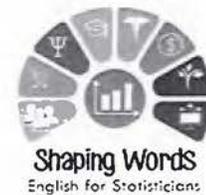
	<ul style="list-style-type: none"> The strategy "Active listening" is introduced in this way: T will ask Ss how they show they are paying attention when having a conversation. Then, T will name the strategy and provide examples. In pairs, Ss will practice asking and answering the questions. They will apply the strategy mentioned before. Ts will walk around to monitor Ss and take notes on their performance. <p>Materials: Handout #16.1 for low proficiency learners and handout #16.2 for high proficiency learners.</p>		<p>I agree/disagree with you.</p> <p>It's my turn/your turn. Who starts? I can start/ I start.</p>	<p>5 min</p> <p>10 min</p>
5	<p>Pre-task #3: Let's talk</p> <p>Link: Let's now practice how to establish a conversation.</p> <ul style="list-style-type: none"> Ss will receive a sample conversation (handout #17). Ss will listen to the recorded conversation. T will encourage learners to pay attention to pronunciation and intonation. The strategy "asking for clarification" is introduced. T will ask Ss "what do you do if you don't understand what a person is telling you?" (Elicit ideas from Ss). T will name the strategy and elicit examples from Ss. In pairs, they will practice the conversation with a partner. After that, they will replace the information in the conversation by using a given role. Ss will apply the aforementioned strategy when interacting. (Grouping strategy: Statistical terms). Ts will walk around the room helping and monitoring Ss. 	<p>L S R</p>	<p>Vocabulary</p> <p>Where do you work? I work at/in... What's your area of specialization? I'm a statistician and I work with Statistics applied to... Are you a presenter/attendee? Currently, I'm working on... I'm in charge of...</p> <p>Asking for clarification</p> <p>Excuse me? Can you please speak slower? Can you speak louder please? Sorry, I don't understand. Could you please repeat that?</p> <p>Pronunciation</p> <p>Statistics/ statistician/ consultant</p> <p>UL</p>	<p>Acting out</p> <p>Asking for clarification</p> <p>5 min</p> <p>5 min</p> <p>5 min</p>

	<p>Materials: Handout # 17 Material # 11: Grouping strategy Material # 12: Roles</p>		<p>I can start/It's my turn/your turn. I'm <u>Marisa</u> and you're <u>Sue</u>. Let's change roles.</p>		
6	<p>Main Task: Who are you?</p> <p>Task: Ss will pretend they are at a conference about Statistics. (A poster of the conference will be displayed on the board). They will interact with other participants by introducing themselves providing some personal information. Individually, Ss will write down some key information on a card (handout # 18) and check possible questions they can ask the other participants.</p> <p>Planning stage: In pairs, Ss will take turns introducing themselves and exchanging information. Then, they will switch partners and continue meeting other people at the conference. They will talk to at least four classmates. (T will remind Ss about formality, using active listening and asking for clarification when necessary). UL will be written on the board.</p> <p>Reporting stage: Some pairs will role-play their interaction with their partners for the whole class.</p> <p>Ts will walk around monitoring and assisting Ss.</p> <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Material #13: Poster/ Material #14: Badges Handout #18 Card</p>	<p>L S R W</p>	<p>Vocabulary</p> <p>Where do you work? What's your name? Where are you from originally? What's your area of specialization? Are you a presenter/attendee?</p> <p>UL</p> <p>What about you? Can I join you? Are you enjoying the conference so far? What kinds of things are you working on right now? That's an interesting field! Can I have your email/phone number? It was great to meet you. Can I join you?</p>	<p>Using Active Listening (back channel cues)</p> <p>Asking for clarification</p>	<p>10 min</p> <p>10 min</p> <p>5 min</p> <p>10 min</p>

7	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post-Task: Up or Down?</p> <ul style="list-style-type: none"> Ss will work on handout #19. In pairs, Ss will practice saying some questions. Then, Ss will listen to the recorded questions. T will ask Ss if they noticed any change in the intonation. They will analyze the type of intonation used in Wh-questions and Yes/No questions, ex. 2. T will explain the importance of using the correct intonation to convey a message. In pairs, Ss will go back to handout #17 again, decide what kind of intonation each question has. Then, they will practice the conversation with a partner paying attention to the intonation of questions. Ts will walk around to listen to Ss and provide feedback if necessary. <p>Materials: Handout #19</p>	L S R	<p style="text-align: center;">Intonation</p> <p>Rising/ falling intonation</p> <p style="text-align: center;">UL</p> <p>I'm not sure, but I think the intonation is rising. I can start/I go first. I think this question has....intonation What do you think about #1? I agree/disagree.</p>		10 min 5 min 5 min 5 min
8	<p>Quiz #1</p> <ul style="list-style-type: none"> Ss will complete a short quiz. Ss will listen to the audio 2 times. The quiz will help Ss get prepared for an academic test. 	L R W		Listening for specific details Listening for main ideas	15-20 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Note: *Ss will complete an instrument as part of the research project the facilitators are doing.



Unit 1: What are conferences about?

Handout #16.1

Pre-task #2: Asking others

1. When interacting with other colleagues for the first time, you need to ask some questions to introduce yourself. Read the following questions and practice them with your partner.

Information questions	Sample Answers
a. Name: What's your name? / And your name is?	<i>I'm Mark Smith.</i>
b. Country: Where are you from? / Where do you come from?	<i>I come from Mexico / I'm from Mexico.</i>
c. Job: What do you do? / Do you like your job?	<i>I'm a statistician/ Yes, I love it.</i>
d. Place of work: Where do you work?	<i>I work at Florida State University.</i>
e. Area of specialization: What do you specialize in?	<i>I specialize in Survey Design and Sampling Procedures.</i>
f. Interests in the field: Are you interested in _____?	<i>I'm interested in social demography.</i>
g. Current projects: Are you working on a project at the moment?	<i>Currently, I'm working on linear regression models.</i>



Remember we use **a + a word that starts with a consonant** and **an + a word that starts with a vowel** when talking about occupations. For example: I'm a professor/ I'm an engineer.

Using Active Listening

Show you are listening by using short responses:

Uh-huh,

Hmm,

I see,

Sure,

I understand.

Really?

Useful Language

It's my turn/your turn.

Who starts?

I can start/ I start.



Unit 1: What are conferences about?

Handout #16.2

Pre-task #2: Asking others

1. When interacting with other colleagues for the first time, you need to ask some questions to introduce yourself. Read the following questions and practice them with your partner.

Information questions

Sample Answers

- | | |
|---|--|
| a. Name: What's your name? / And your name is? | <i>I'm Mark Smith.</i> |
| b. Country: Where are you from? / Where do you come from? | <i>I come from Mexico./ I'm from Mexico</i> |
| c. Job: What do you do? / Do you like your job? What do you teach? | <i>I'm a statistician. / I am a professor.
I teach Descriptive Statistics.</i> |
| d. Place of work: Where do you work? How long have you worked there? | <i>I work at Florida State University.
I have worked at FSU for 6 years.</i> |
| e. Studies: Where did you study? | <i>I studied at the University of Costa Rica.</i> |
| f. Area of specialization: What do you specialize in? | <i>I specialize in Survey Design and Sampling Procedures</i> |
| g. Interests in the field: Are you interested in _____? | <i>I'm interested in social demography.</i> |
| h. Current projects: Are you working on a project at the moment? What is your project about? | <i>Currently, I'm working on linear regression models.
It is about OLS applied to the unemployment rate.</i> |



Remember we use **a + a word that starts with a consonant and an + a word that starts with a vowel** when talking about occupations talking about occupations. For example: I'm a professor/ I'm an engineer.

Using Active Listening

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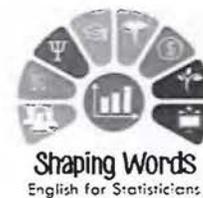
Really?

Useful Language

It's my turn/your turn.

Who starts?

I can start/ I start.



Unit 1: What are conferences about?

1. Listen to the following sample conversation between two colleagues at a conference. Then, practice it with your partner.

Marisa: Good morning!

Sue: Good morning! I don't think we've met. I'm Sue.

Marisa: Hi Sue. I'm Marisa. How are you?

Sue: I'm pretty good. What about you?

Marisa: I'm fine. Thanks for asking. It's nice to meet you, Sue.

Sue: Glad to meet you too. Are you a presenter?

Marisa: Yes, I am. What about you?

Sue: No, I'm not. Maybe next year I'll present.

Marisa: That's great! Where do you come from?

Sue: I'm from Canada. And you?

Marisa: I'm from the US.

Sue: What do you do, Marisa?

Marisa: I'm a Statistics professor at the University of Washington

Sue: I see. I'm a statistician at the Canada Center of Population.

Marisa: That sounds interesting. Have you been developing a study recently?

Sue: Sorry, could you please repeat that?

Marisa: Sure! Are you currently working on a project?

Sue: Yes. I'm working on models of mortality. Are you interested in demographics?

Marisa: I find it fascinating, but I like teaching.

Sue: What do you specialize in?

Marisa: I specialize in mathematical statistics and experimental designs.

Sue: That's an interesting field. Next talk is about to start. It was nice talking to you.

Marisa: Thanks! It was great to meet you.

Clarification strategies

When you don't understand, you can ask for clarification.

- Excuse me? Can you speak slower please?
- Can you say that again, please?
- Sorry, could you please repeat that?

2. Practice the conversation again using one of the roles given by the teacher. Include more questions from handout #16.

Unit 1: What are conferences about?

Main task: Who are you?

1. It is now your turn meeting people at a conference. Write key information about yourself in the following chart.

Full name: _____	
Country: _____	
Occupation: _____	
Place of work: _____	
Specialization: _____	
Interests in the field: _____	
Current project: _____	

2. Imagine you are at a break during the “11th International Statistics Days Conference”. Greet, introduce yourself to other participants, ask a few questions and finish the conversation. Talk to at least four people.



Remember to be formal and use the strategies “Active Listening” and “Asking for clarification” when necessary.

Unit 1: What are conferences about?

Main task: Who are you?

Handout #18

1. It is now your turn meeting people at a conference. Write key information about yourself in the following chart.

Full name: _____
Country: _____
Occupation: _____
Place of work: _____
Specialization: _____
Interests in the field: _____
Current project: _____

2. Imagine you are at a break during the “11th International Statistics Days Conference”. Greet, introduce yourself to other participants, ask a few questions and finish the conversation. Talk to at least four people.



Remember to be formal and use the strategies “Active Listening” and “Asking for clarification” when necessary.



Unit 1: What are conferences about?

Handout #19

Post-task: Up or Down?

1. In pairs, practice saying the following questions. Then, listen to the recording. Did you listen to any change in the intonation?

- Are you from Costa Rica?
- What project are you working on right now?
- Can I have your email?
- Do you have any exciting projects on the horizon?
- What's your line of work?

2. Go back to the questions again, what kind of intonation did you notice? Rising  or falling ?

INTONATION OF QUESTIONS	
Yes/No Questions	Wh-Questions
When you ask questions that are answered with Yes or No , <u>your voice goes up</u> at the end of the question. These questions start with words like did, does, is, and can.  Ex: Do you like your job? Yes, I do Are you from Canada?	When you ask questions that require more information and begin with wh- words (where, what, when, how), <u>your voice goes down</u> at the end of the question.  Ex: Where do you come from? What's your name?
Using the correct intonation in questions is very important to avoid misinterpretations. If we use the incorrect intonation, other people can be confused.	

3. Go back to handout #17 and decide what kind of intonation each question has. Write  or  next to each question. Then, practice asking the conversation with a partner. Make sure you use the correct intonation.

Useful Language

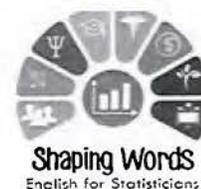
- I'm not sure, but I think the intonation is rising.
- I can start/I go first.
- I think this question has...intonation.
- What do you think?
- I agree/disagree.



Unit 1: What are conferences about?
Grouping strategy: Statistical terms



Regression	Models
Data	Analysis
Sampling	Method
Standard	Deviation
Big	
Hypothesis	Testing



Unit 1: What are conferences about?

Pre-task: Let's talk

Roles

Name: Elsie/Erick Lewis Country: Australia Job: Professor at the University of South Australia	Name: Mark/Mary Johnson Country: United States Job: Statistician at the Finance Department at The Bank of New York
Name: John/Johanna Peters Country: United States Job: Statistics Student at Columbia University	Name: Marie/Mike Parks Country: England Job: Health Analytic Consultant at UnitedHealth Group
Name: Michael/Michelle Smith Country: Canada Job: Professor at the University of Toronto	Name: Patrick/Patricia Jenkins Country: United States Job: Workforce and People Analytics Consultant at Deloitte

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas.



Shaping Words
English for Statisticians

Material #13

Poster for Task

XIth ISDC 2018

**11TH INTERNATIONAL
STATISTICS DAYS
CONFERENCE**

MUĞLA
MÜĞLA ÜNİVERSİTESİ

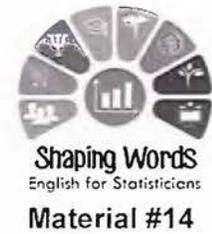
3-7 OCTOBER 2018
BODRUM KEFALUKA RESORT HOTEL
MUĞLA - BODRUM - TURKEY

KEFALUKA GRAMMY

igs2018.mu.edu.tr

Image taken from <http://www.igs2018.mu.edu.tr/#>

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas.



Unit 1: What are conferences about?

Sample badges



Unit 1: What are conferences about?

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 5



Facilitator: Teresita Calderon Q.
Assistant: Sandra Rojas O.

Date: September 10th, 2018
Course: Shaping Words

Goal #2: By the end of the unit, the students will be able to interact effectively with presenters and participants in English when attending conferences by using appropriate structures, register, and vocabulary.

General Objective: By the end of the lesson, the students will be able to appropriately request information during a question-answer session after a talk at a conference by formulating adequate questions.

Specific Objectives: The students will be able to:

1. appropriately formulate networking questions by playing a question game.
2. successfully identify appropriate kinds of questions at a Q & A session by analyzing three cartoons.
3. correctly classify questions according to the reasons why they are asked by matching them accordingly.
4. successfully identify indirect question structures by selecting the most appropriate questions.
5. appropriately recognize the meaning of five technical words by completing statements.
6. successfully show understanding of the conclusions provided at a talk by taking notes.
7. accurately request information by formulating questions based on the conclusions of a talk.
8. correctly write polite requests by using introductory phrases used in indirect questions.
9. successfully apply the strategies listening for specific details and listening for main ideas by completing a test.

Obj.	Procedures	Skills	Language Focus	Strategy	Time
	Routines: Greetings, write the date and objective, check attendance				5 min
1.	<p>Link: Last week, we studied personal information questions at networking, let's put them into practice as well as their common intonation.</p> <p>Warm –up:</p> <ul style="list-style-type: none"> • Divide the class into two groups. Ss choose a statistical symbol from a power point slide. Each number has a statement or an answer to a personal information question. • Ss have to make up the question to that answer within 30 seconds. If they ask the correct question, they get a point. • The group with more points wins. • T models pronunciation of statistical terms and keeps track of each group's score. <p>Material # 15: Power point presentation</p>	R S L	<p>Useful Language</p> <p><i>It's our turn/ We go next</i> <i>We choose P value</i> <i>Sample variance</i> <i>Mid-range</i> <i>Statistical power</i> <i>Median</i> <i>Sample size</i> <i>Sample mean</i></p> <p>Vocabulary <i>P value</i> <i>Sample variance</i> <i>Mid-range</i> <i>Statistical power</i> <i>Median</i> <i>Sample size</i> <i>Sample mean</i></p>		10 min
2.	<p>Link: At the end of a talk, there is always some time to ask the speaker questions about the research project he/she presented.</p> <p>Schema activation:</p> <ul style="list-style-type: none"> • Show a cartoon about asking questions at a Q& A session at an oral presentation. • Ss talk about what they understand about it as a whole group. • T gives three tips about the Q & A session. 	R S L	<p>Useful Language</p> <p><i>I think people should...</i> <i>I think people shouldn't...</i> <i>Questions should be...</i></p>	Activating prior knowledge	5 min

	Material # 16: Power point presentation				
3.	<p>Link: To ask effective questions at a Q & A session, it is important to formulate questions properly.</p> <p>Pre-task 1:</p> <ul style="list-style-type: none"> • Ss work in pairs. They match sample question starters to their corresponding reasons for asking questions. • Ss practice the questions in pairs. • Ts walk around the class monitoring pronunciation. • UL is written on the board. • Ts walk around the room helping and monitoring Ss. <p>Materials: Material # 17 Handout # 20 Power point presentation</p>	R L S	<p>Vocabulary</p> <p><i>Could you please explain...? What does...mean? You mentioned....but how does it connect to...? Could you elaborate more on...?</i></p> <p>Useful Language</p> <p><i>I think this part goes here. What do you think? No, I don't think so. Yes, you are right.</i></p>	Questioning	15 min
4.	<p>Link: As it was mentioned before, it is important to be able to ask questions properly. We are going to do some practice on how to ask questions.</p> <p>Pre-task 2: Asking questions</p> <ul style="list-style-type: none"> • Ss read an abstract individually. • Ss get in pairs and from a list of six questions, Ss identify the four most appropriate questions to ask. 	R L S W	<p>Useful Language</p> <p><i>What do you think about this question? I think this question is / isn't appropriate. This question sounds impolite.</i></p>	Using cognates	10 min

	<ul style="list-style-type: none"> • Ts walk around monitoring students' work. • UL is written on the board. <p>Materials: Handout # 21</p>				
5.	<p>Link: Later, we are going to watch a video that we will use to ask questions. First, we are going to review some vocabulary about it.</p> <p>Pre-task 3: Vocabulary related to a talk</p> <ul style="list-style-type: none"> • Ss complete some sentences using the word bank. • Then, they practice the pronunciation of each word in pairs. • Ts walk around monitoring students' work. • UL is written on the board. <p>Materials: Handout # 22</p>	R W L S	<p>Vocabulary</p> <p><i>Mean</i> <i>Distribution</i> <i>Nuisance parameter</i> <i>Confidence interval</i> <i>Prior parameter</i></p> <p>Useful Language</p> <p><i>I think this one goes here.</i> <i>This word doesn't fit here.</i> <i>What do you have in number...?</i></p>	Using cognates	10 min
6.	<p>Link: We are going to listen to the conclusions at the end of a talk. Quickly review the main steps of note-taking.</p> <p>Pre-task 4:</p> <ul style="list-style-type: none"> • Ss listen to the conclusions of a talk and take notes in order to complete a short outline. • Ss listen to the audio 3 times (first time for context, second time to do the exercise, and the last time to check) • Ss get in pairs and compare their answers. • Ts walk around monitoring their work. 	R L S	<p>Useful Language</p> <p><i>What do you have in number....?</i> <i>I wrote.....</i> <i>I didn't understand this part...</i> <i>I heard</i> <i>Did you understand number....?</i></p>	Listening for details Note taking	15 min

	<ul style="list-style-type: none"> UL is written on the board. <p>Materials: Handout # 23 Video https://www.youtube.com/watch?v=KhAUfqhLakw&t=78s</p>				
7.	<p>Link: We are now going to pretend that we are members of the audience at that talk. What questions would you ask the speaker based on the conclusions he gave?</p> <p>Main task: Ss work in pairs. This time, Ss watch the video of the talk and review the notes they took on the previous exercise. Grouping Technique: Ss match the statistical symbol to its name.</p> <p>Planning: Ss write three questions they would like to ask the speaker of that talk. In groups, Ss compare their questions and give feedback to each other.</p> <p>Reporting: Ss choose three questions per group and report them to the class.</p> <ul style="list-style-type: none"> Ts walk around monitoring work. UL is written on the board. <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Handout # 24 Material # 18</p>	R W L S	<p>Useful Language</p> <p><i>I want to ask...</i> <i>What questions did you write?</i> <i>I wrote...</i> <i>I think your question needs...</i></p>	Questioning	5 min 10 min 10 min 10 min
	<p>Error Correction: Ss receive feedback on their performance during the previous activities.</p>				10 min

8.	<p>Post-task: Indirect Questions</p> <ul style="list-style-type: none"> • Ss read some examples of indirect questions. • T explains that the structure of the indirect question is different. • Ss complete questions by adding indirect language. <p>Material: Handout # 25 Power point presentation</p>	R W	<p>Vocabulary</p> <p><i>Could you please...?</i> <i>I was wondering if...</i> <i>Is it possible to...?</i></p>		10 min
9.	<p>Academic Test</p> <ul style="list-style-type: none"> • Ss will complete a listening test. • Ss will listen to the audios for the test 2 times (one for context, another one to answer the questions) 	L R			30 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher.

Note: *Ss will complete an instrument as part of the research project the facilitators are doing.



Unit 1: What are conferences about?

Handout # 20

TIPS FOR ASKING QUESTIONS AT A TALK

<u>Reasons to ask questions</u>	<u>Examples</u>
Information that you didn't understand or missed	<ul style="list-style-type: none"> • Could you please explain.....? • What does... mean? • I might have missed it but could you go over....?
Gaps in the information within a presentation	<ul style="list-style-type: none"> • You mentioned.... but how does it connect to....? • Could you please describe how.... affects.... (mentioned in presentation)...?
Linking information in the current presentation to previous presentations	<ul style="list-style-type: none"> • What is the relationship between.... and....? • How does.... compare to.... mentioned before? • Is.... the same as.... mentioned before?
Deeper understanding of the topic	<ul style="list-style-type: none"> • Is it posible to describe how... function? • Could you please elaborate on.....? • Is there more information about....?
Out-of-the-box thoughts	<ul style="list-style-type: none"> • Have you considered how.... relates to....?

Adapted from: <https://www.gtac.edu.au/students/learning-resources/tips-for-asking-questions-in-a-science-presentation/>

Unit 1: What are conferences about?

Handout # 21

I. Read the following abstract. Reflect on what questions you would ask the researcher.

On the one parameter unit-Lindley distribution and its associated regression model for proportion data.

In this paper considering an appropriate transformation on the Lindley distribution, we propose the unit-Lindley distribution and investigate some of its statistical properties. An important fact associated with this new distribution is that it is possible to obtain the analytical expression for bias correction of the maximum likelihood estimator. Moreover, it belongs to the exponential family. This distribution allows us to incorporate covariates directly in the mean and consequently to quantify their influences on the average of the response variable. Finally, a practical application is presented to show that our model fits much better than the Beta regression.

II. Work in pairs. Suppose that you are at a conference where a speaker just presented this talk. Check the most appropriate questions in terms of politeness.

Could you go over the statistical properties that you investigated in the unit-Lindley distribution?

Could you please explain how to obtain the analytical expression for bias correction of the maximum likelihood estimator?

How many statistical properties did you find?

How do you know that your model fits better than the Beta regression?

Is there more information about how to incorporate covariates directly in the mean?

Could you elaborate on how to quantify the covariates influence on the average of the response variable?



Unit 1: What are conferences about?

Handout # 22

VOCABULARY PRACTICE

Write the concept next to its correct definition.

<i>Confidence interval</i>	<i>Nuisance parameter</i>	<i>Mean</i>
<i>Distribution</i>	<i>Prior probability</i>	

1. _____ refers to probability distribution that expresses one's beliefs about this quantity before some evidence is taken into account.
2. _____ is the average of a set of data.
3. _____ a listing or function showing all the possible values (or intervals) of the data and how often they occur.
4. _____ any factor, which is not of immediate interest but which must be accounted for in the analysis of those parameters that are of interest.
5. _____ a type of interval estimate, computed from the statistics of the observed data that might contain the true value of an unidentified population parameter.

Unit 1: What are conferences about?

Handout # 23

Context: Listen to the conclusions of the talk *Frequentism and Bayesianism: What's the Big Deal?* By Jake VanderPlas

I. Take-note of the most important conclusions provided by the speaker. Focus on the clues below.

Bayesianism and Frequentism

1. Main difference: _____
2. Results in simple problems: _____
3. _____ provides a more natural handling of nuisance parameters, although some people may disagree.
4. _____ provides a more natural interpretation of errors.
5. Scientist want to show an interval that is _____ probable to be in there.
6. Bayesianism is more natural for communication _____, although there are some philosophical issues with _____.
- 7 Both paradigms are _____ in the right situation



Unit 1: What are conferences about?

Handout # 24

I. Watch the video again. Write three questions that you would ask the speaker.

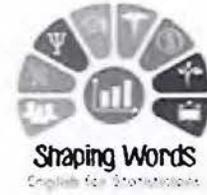
Question # 1: _____

Question # 2: _____

Question # 3: _____



I wonder if this is a question.



Unit 1: What are conferences about?

Handout # 25

I. Read the chart below.

INDIRECT QUESTIONS are a little more formal and polite. We use them when talking to a person we don't know very well, or in professional situations.	
Could you tell me	how you chose the sample population?
Do you know	what other dependent variables can be used?
I'd like to know	where you took those data.

II. Read the question. Then, write a polite question. Use the phrases from the previous chart.

1. What happens to the errors in the logistic regression function?

2. What is the meaning of coefficient estimates?

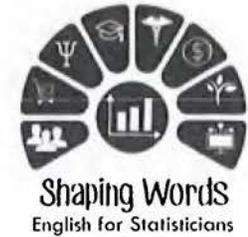
3. How many variables did you use?

4. Why did you perform a regression?

5. Why do you use a different procedure to conduct an independent-sample t-test?

Unit 2: Sharing knowledge

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 6



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: September 17th, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to orally present the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, delivery strategies, and vocabulary.

General Objective: By the end of the lesson, the students will be able to appropriately recognize delivery strategies and types of attention getters by analyzing authentic videos of sample presentations.

Specific Objectives: The students will be able to:

1. successfully recall previous experiences when delivering an oral presentation by discussing specific questions.
2. appropriately identify specific strategies that can be used when delivering a talk by ranking the most important ones.
3. correctly recognize the delivery strategies used in an introduction to a talk by completing a checklist.
4. properly identify five different attention getters used in introductions by matching the phrase to its corresponding definition.
5. correctly recognize the attention getters used by three speakers by writing the name of the strategy below the corresponding script.
6. appropriately deliver the attention getter of an introduction about a specific topic by presenting it to their classmates.
7. correctly complete a set of sentences by writing the infinitive form of a verb from the box.
8. successfully interact with other attendees at a conference by role-playing a conversation.

Obj	Procedures	Skills	Language focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.	L R			5 min
1	<p>Link: Previously, we have been talking about the structure of talks and the way we can interact at a conference as a member of the audience. Today, we will start working on how to be good presenters.</p> <p>Warm-up: Tell us about your experience</p> <ul style="list-style-type: none"> In pairs or small groups, Ss will answer four specific questions about their experiences when delivering an oral presentation. UL for interaction will be written on the board and practiced orally. Ts will walk around to monitor Ss and provide help if necessary. Ss will share some ideas with the whole class. <p>Material #18: PPT</p>	L S R	<p>Vocabulary</p> <p>Nervous Scared Confident Well-prepared</p> <p>UL</p> <p>What do you think about...? I remember that... I was nervous/confident... I was/wasn't well prepared... I think that... I didn't prepare...</p>	Activating background knowledge	5 min
2	<p>Link: What is the most important strategy you need to use when presenting/delivering an oral presentation?</p> <p>Pre-task 1: Delivery strategies</p> <ul style="list-style-type: none"> Each student will receive different strategies. They will look for partners who have different ones to make a group. Then, they will take turns reading the strategies in their corresponding groups. 	L S R W	<p>Vocabulary</p> <p>Emphasis Slow speed Face the audience Get stuck Convey</p> <p>UL</p>	Activating background knowledge	10 min

	<ul style="list-style-type: none"> Then, Ss will rank those strategies as the five most important ones. Then, they report it to the class. (T will demonstrate good and bad posture, body language and eye contact strategies in front of the class). Ts will walk around to check Ss' performance by taking notes. UL will be written on the board. <p>Material: Material #19 and handout #26: Delivery strategies.</p>		<p>I think it is very important to... The first thing to do is... The second thing to do is... It is necessary to... I agree/disagree with you In my opinion, number 1 is... and number 2 is...</p>		
3	<p>Link: Let's watch a video about a talk we saw in a previous class. This time, do not focus on the content, focus on the speaker's delivery strategies.</p> <p>Pre-task #2:</p> <ul style="list-style-type: none"> Ss will watch a video and complete a checklist to assess the delivery strategies used by the speaker. In pairs, Ss will compare their ideas. Ss will share with the whole class. Ts will walk around to monitor Ss and take notes on their performance. UL will be written on the board. <p>Materials: Handout #27/ Material # 20: Video https://www.youtube.com/watch?v=be2wuOaqIFY (1:09-2:33)</p>	L S R W	<p>UL</p> <p>I think this speaker used... I don't think the speaker.... What do you think about #1? I agree/disagree with you because the presenter...</p>	Lowering anxiety	5 min 5 min
4	<p>Link: Delivery strategies are very important to keep your audience interested. Previously we discussed sections of the introduction to a talk and there was a specific one we use to "Hook the audience" (Use visuals to explain the phrase). Do you remember its name? (Encourage Ss to come up with possible ways to catch the audience's attention).</p>	L S R	<p>Pronunciation</p> <p>Hook Audience Current Technique Astonishing Event Startling</p>	Negotiating meaning	

6	<p>Main Task: Our turn!</p> <p>Task: Ss will pretend they are participating in the “11th International Statistics Days Conference” (A poster will be displayed) with a talk about the advantages of written questionnaires. In small groups or pairs, Ss will read a short text about the advantages of written questionnaires. Then, they will write an appropriate attention getter for their talk. Each group will be assigned a different attention getter. (Use random-pickers to assign the types of attention getters https://www.classtools.net/random-name-picker/)</p> <p>Planning stage: Ss will rehearse the attention getter for some minutes. Then, Ss work into different groups with people from other groups to present their attention getter. (T will remind Ss about using delivery strategies and providing feedback to their partners when possible).</p> <p>Reporting stage: Some students will present their attention getters to the class.</p> <p>Ts will walk around monitoring and assisting Ss.</p> <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Material #22: Grouping strategy. Handout #: 29 Reading. Handout # 30. Material #23: Types of attention getters in Random name picker (if internet works properly/Plan B: give them a slip of paper with the attention getter). Material #24: Poster.</p>	L S R W	<p>Pronunciation</p> <p>Nowadays Percent Population Bias Survey Questionnaire</p> <p>UL</p> <p>I'm going to talk about... Did you know that...? X percent of the population.... Nowadays X percent.... Last year/semester, I analyzed...</p>	<p>Delivery strategies</p> <p>Self-monitoring</p>	<p>10 min</p> <p>10 min</p> <p>5 min</p>
7	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post task: adjective + infinitive</p>	L S R W	<p>Grammar</p> <p>Use infinitives (to + verb) after certain adjectives. Sometimes the</p>		10 min

	<ul style="list-style-type: none"> Ss will look at two examples on the board. They will decide how to complete them. Ss will read some information about how to use the infinitive after an adjective. Ss will complete sentences with the infinitive form of the verbs in the box. Ss will compare with a partner. Finally, they will share with the whole class. UL will be written on the board. Ts will walk around to listen to Ss and provide feedback if necessary. <p>Material: Handout # 31</p>		<p>infinitive gives a reason for the adjective.</p> <p>- I'm happy to be in this conference.</p> <p>UL</p> <p>I'm not sure, but I think the correct answer is...</p> <p>What do you think about #1? I agree/disagree</p> <p>What did you write in number 2? I wrote... in number 2</p>		10 min
8	<p>Speaking Activity #1</p> <ul style="list-style-type: none"> Ss will have about 10 minutes to practice a short conversation with a partner in which they greet each other, introduce themselves, ask a few questions and finish the conversation. Speaking tests must be done in pairs. The time assigned for each pair should be from 5 to 7 minutes. After each pair has finished the test, Ts will take a minute to mark each student individually and then calculate the total mark. Then, they will call the next pair. <p>*While the oral test is going on, Ss will complete the unit assessment on their own. Ts will explain the instruments before the oral test starts.</p>	L S R		<p>Using Active Listening (back channel cues)</p> <p>Asking for clarification</p>	10 min 45-50 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Note: *Ss will complete an instrument as part of the research project that the facilitators are doing. During the oral test, they will complete the assessment tools.

These are the videos related to attention getters.

<https://www.youtube.com/watch?v=ogeGJS0GEF4> (reference to statistics) (0:11- 0:58)

<https://www.youtube.com/watch?v=hVimVzqtD6w> (personal reference) (0: 24- 0:52)

<https://www.youtube.com/watch?v=8B271L3NtAw> (startling statement)

<https://www.youtube.com/watch?v=NAXPVDp08Gw> (current events) (0:10- 44)

<https://www.youtube.com/watch?v=XVMYTplQ158> (reference to subject)

Unit 2: Sharing knowledge

Material #19



DELIVERY STRATEGIES

1. Homework

Homework is very important because it helps you get better results. Make sure you know what kind of audience you will find in the event. Study the type of conference, symposium or event you are going to attend. Do research about the dress code, type of language (colloquial or more formal) people tend to use when presenting.

2. Organize its Parts

An effective presentation is divided into a few parts. Most of the effective presentations contain two to three main parts. The presenter should tell the audience what these parts are before or during the presentation.

3. Try the Presentation

After preparing the presentation at home, practice it in front of a colleague to make sure the tone is appropriate. This person will help the presenter to improve the weak aspects of the presentation. Sometimes, the presenter gets stuck at a point, which can create a negative impact on the audience. To prevent such thing, the presenter should prepare mental notes and try to remember the points that are difficult.

4. Emphasis

When you are writing, you can emphasize your main points by using bold type or italics. When you are speaking, you also need to place emphasis on the important words or ideas, and this is done by using stress. There are three main ways to add stress to a word:

- speak the word more slowly
- speak the word more loudly
- pause briefly before and after the word

Adding emphasis will make it easier for the audience to follow your presentation, as they are more likely to understand your main points. Use stress for important points and for contrast.

5. Appearance and Talking

The presenter should dress properly to make an impression on the audience. You should speak more slowly than usual to make sure your audience can understand better. A general rule is the larger the audience, the more slowly you need to speak.

- speak a little more slowly than you normally do, especially if you feel nervous
- also speak more slowly if you are worried about your pronunciation, as this will help you to articulate (say) the words more clearly
- do not look down at papers constantly, create outline notes instead.

6. Using Aids + Keeping Slow Speed

In important presentations, it is necessary to use visual-aids to define major points properly. This will make the audience memorize every single idea of the presentation. It is also necessary that the presenter speak slowly. The audience needs to hear and understand everything clearly.

7. To the Point Info

Do not put unnecessary data or a huge number of quotations because it will bore the audience even if the audience is attentive. Simply, include all the data which is to-the-point so the audience will be interested all the time.

8. Eye Contact

One of the most important factors of an oral presentation is to keep eye contact with the audience. This will prove that the presenter has efficient communication skills. The presenter is supposed to look into the eyes of every single person sitting in the room.

9. Body language

Standing well allows you to control your breathing and voice production. You will feel better, sound better, and look better. Also think carefully about where your hands will be and what you will do with them. Remember that you are the energy of your presentation, and you therefore need to move in order to convey that energy to the audience. At the same time, you need to be careful not to move too much.

- stand up straight
- hold your hands in front of your body or behind your back
- don't put your hands in your pockets
- face the audience
- use gestures to stress important points
- use hands to demonstrate or to count (e.g. 'There are three reasons for this...')

10. Questions

Many speakers think that questions from the audience are a problem, but in fact, two-way communication not only clarifies the idea of the person who asked the question but also clarifies the ideas of others. The presenter should be prepared to answer questions from the audience.

Adapted from <https://www.usnews.com/education/blogs/professors-guide/2010/02/24/15-strategies-for-giving-oral-presentations> & <http://www.eapfoundation.com/speaking/>

Unit 2: Sharing knowledge

Handout #26

Pre-task #1

DELIVERY STRATEGIES

1. Homework

Homework is very important because it helps you get better results. Make sure you know what kind of audience you will find in the event. Study the type of conference, symposium or event you are going to attend. Do research about the dress code, type of language (colloquial or more formal) people tend to use when presenting.

2. Organize its Parts

An effective presentation is divided into a few parts. Most of the effective presentations contain two to three main parts. The presenter should tell the audience what these parts are before or during the presentation.

3. Try the Presentation

After preparing the presentation at home, practice it in front of a colleague to make sure the tone is appropriate. This person will help the presenter to improve the weak aspects of the presentation. Sometimes, the presenter gets stuck at a point, which can create a negative impact on the audience. To prevent such thing, the presenter should prepare mental notes and try to remember the points that are difficult.

4. Emphasis

When you are writing, you can emphasize your main points by using bold type or italics. When you are speaking, you also need to place emphasis on the important words or ideas, and this is done by using stress. There are three main ways to add stress to a word:

- speak the word more slowly
- speak the word more loudly
- pause briefly before and after the word

Adding emphasis will make it easier for the audience to follow your presentation, as they are more likely to understand your main points. Use stress for important points and for contrast.

5. Appearance and Talking

The presenter should dress properly to make an impression on the audience. You should speak more slowly than usual to make sure your audience can understand better. A general rule is the larger the audience, the more slowly you need to speak.

- speak a little more slowly than you normally do, especially if you feel nervous
- also speak more slowly if you are worried about your pronunciation, as this will help you to articulate (say) the words more clearly
- do not look down at papers constantly, create outline notes instead.

6. Using Aids + Keeping Slow Speed

In important presentations, it is necessary to use visual-aids to define major points properly. This will make the audience memorize every single idea of the presentation. It is also necessary that the presenter speak slowly. The audience needs to hear and understand everything clearly.

7. To the Point Info

Do not put unnecessary data or a huge number of quotations because it will bore the audience even if the audience is attentive. Simply, include all the data which is to-the-point so the audience will be interested all the time.

8. Eye Contact

One of the most important factors of an oral presentation is to keep eye contact with the audience. This will prove that the presenter has efficient communication skills. The presenter is supposed to look into the eyes of every single person sitting in the room.

9. Body language

Standing well allows you to control your breathing and voice production. You will feel better, sound better, and look better. Also, you need to think carefully about where your hands will be and what you will do with them. Remember that you are the energy of your presentation, and you therefore need to move in order to convey that energy to the audience. At the same time, you need to be careful not to move too much.

- stand up straight
- hold your hands in front of your body or behind your back
- don't put your hands in your pockets
- face the audience
- use gestures to stress important points
- use hands to demonstrate or to count (e.g. 'There are three reasons for this...')

10. Questions

Many speakers think that questions from the audience are a problem, but in fact, two-way communication not only clarifies the idea of the person who asked the question but also clarifies the ideas of others. The presenter should be prepared to answer questions from the audience.

Adapted from <https://www.usnews.com/education/blogs/professors-guide/2010/02/24/15-strategies-for-giving-oral-presentations> & <http://www.eapfoundation.com/speaking/>



Unit 2: Sharing knowledge
Pre-task #2

A. Instructions. Watch a video of someone giving an oral presentation. Complete the following checklist. Add more details on the third column of your checklist.

Did the speaker...?	Yes	No	More details
1. use stress to emphasize any words?			If yes, which ones do you remember?
2. dress properly for the event?			How did she dress?
3. use an appropriate speed when talking so that the audience can understand?			Was it clear for you?
4. use visual aids?			If yes, what did she use?
5. keep eye-contact with the audience?			
6. use body language correctly (posture, use of gestures or hands to explain)?			What did she do?
7. look well-prepared to present?			

B. Share your notes with a classmate. Do you have similar information?

Useful language

I think this speaker used...

I don't think the speaker....

What do you think about #1?

I agree/disagree with you



Unit 2: Sharing knowledge

Instructions: Read the concept and find the corresponding definition.



Reference to statistics	<p>Provide a very surprising fact or statistic. Do not use big numbers; make it very understandable in human terms.</p> <p><i>22% of users have cancelled...</i></p>
Personal reference	<p>Refer to a story about yourself that is relevant for your topic.</p> <p><i>A few years ago, I was...</i></p>
Current events	<p>Refer to current news or an event that relates to your topic. It immediately makes the audience aware of how relevant the topic is in today's world.</p> <p><i>Recently, the president decided to execute...</i></p>
Reference to subject	<p>Tell your audience the subject of your speech. This technique is probably the most direct.</p> <p><i>I'm going to talk about a new technique...</i></p>
Startling statement	<p>Surprise your audience with astonishing information about your topic. Often, surprising statements come in the form of interesting and strange facts.</p> <p><i>Did you know that 15%...?</i></p>

Unit 2: Sharing knowledge
Pre-task #4

Instructions: Read and listen to the attention getters of three talks. Write the name of the type of attention getter that the speaker used in each case. Finally, compare your answers with a partner. There is one extra option.

Reference to statistics

Personal reference

Current events

Reference to subject

Back in 2003, the UK government carried out a survey, and it was a survey that measured levels of numeracy in the population. And they were shocked to find out that for every 100 working age adults in the country, 47 of them lacked level 1 numeracy skills. Now level 1 numeracy skills—that's low-end GCSE score. It's the ability to deal with fractions, percentages and decimals. So this figure prompted a lot of hand-wringing in Whitehall. Policies were changed, investments were made, and then they ran the survey again in 2011. So can you guess what happened to this number? It went up to 49.

1. _____

Ten years ago, I took on the task to teach global development to Swedish undergraduate students. That was after having spent about 20 years together with African institutions studying hunger in Africa, so I was sort of expected to know a little about the world and I started in our medical university, Karolinska Institute, an undergraduate course called global health but when you get that opportunity you get a little nervous...

2. _____

Today we live in a world of networks. We live in a social network with close ties tight ties to people our local communities and in our country, maybe we have loved ones that live far away. We also have weak ties, professional ties that bind us to others all the way across the world. We also have ties of knowledge. We have claims and counterclaims about how the world works what I want what you want. Together, these things are being monitored online almost on a continuous basis, now these networks certainly they're important for scientists and engineers...

3. _____

Glossary: Hand-wringing: worried behavior. GCSE: General Certificate of Secondary Education. Whitehall: A road in London where most government buildings are. Tie: connecting link (vínculo).
Adapted from <https://www.merriam-webster.com/>

Unit 2: Sharing knowledge

Material #22

Grouping Strategy

A₁	B₁	C₁
A₂	B₂	C₂
A₃	B₃	C₃
A₄	B₄	C₄

A₁	B₁	C₁
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Unit 2: Sharing knowledge
Main Task

Handout #29

A. Instructions: Read the following article.

ADVANTAGES OF WRITTEN QUESTIONNAIRES

Questionnaires are very cost effective when compared to face-to-face interviews. This is especially true for studies that involve large sample sizes and large geographic areas. Written questionnaires become even more cost effective as the number of research questions increases.

Questionnaires are easy to analyze. Data entry and tabulation for nearly all surveys can be easily done with many computer software packages.

Questionnaires are familiar to most people. Nearly everyone has had some experience completing questionnaires and they generally do not make people anxious.

Questionnaires reduce **bias**. There is uniform question presentation and no **middle-man** bias. The researcher's own opinions will not influence the respondent to answer questions in a certain manner. There are no verbal or visual clues to influence the respondent.

Questionnaires are less disturbing than telephone or **face-to-face surveys**. When a respondent receives a questionnaire in the mail, he is free to complete the questionnaire on his own **timetable**. Unlike other research methods, the respondent is not interrupted by the research instrument.

Source: <https://www.statpac.com/surveys/disadvantages.htm>

GLOSSARY:

- **Bias:** deviation of results or inferences from the truth, or processes leading to such deviation
- **Middle man:** an intermediary or agent between two parties
- **Face-to-face:** in person
- **Timetable:** plan, agenda
- **Survey or sample survey:** A study that collects planned information from a sample of individuals about their history, habits, knowledge, attitudes or behavior.

Source: <http://www.stewartshultz.com/statistics/books/Cambridge%20Dictionary%20Statistics%204th.pdf>
<https://www.merriam-webster.com/dictionary>



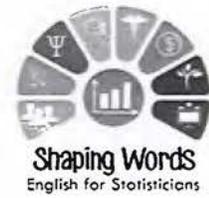
Unit 2: Sharing knowledge
Main Task

A. **Instructions:** You are participating in the “11th International Statistics Days Conference” and your talk is about the advantages of written questionnaires. Write an attention getter for your introduction. Follow the guidelines below.

- a. Include an appropriate greeting and welcome the audience.
- b. Write an appropriate attention getter.

A large rectangular writing area with a wavy bottom edge, containing 13 horizontal lines for writing.

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas



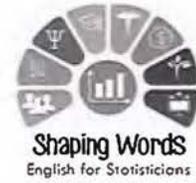
Unit 2: Sharing knowledge

Material #23

Attention getters for Random name picker

1. Startling statement
2. Reference to statistics
3. Current events
4. Reference to subject
5. Personal reference

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Unit 2: Sharing knowledge

Material #24

Poster for Task



Image taken from <http://www.igs2018.mu.edu.tr/#>

Unit 2: Sharing knowledge
Post-task

Infinitives after adjectives

A. Read the chart below carefully.

<p>Use infinitives (to + verb) after certain adjectives. Sometimes the infinitive gives a reason for the adjective.</p>	<p>Other adjectives with the to-infinitive are:</p>									
<p>Example:</p> <ul style="list-style-type: none"> • I'm happy to be in this conference. • I was willing to use a different method. 	<p>Able unable willing likely unlikely ready prepared unwilling</p> <ul style="list-style-type: none"> • Unfortunately I was unable to use random sampling. • The population is likely to change. 									
<p>We often use the to-infinitive with these adjectives to give opinions</p>										
<table style="width: 100%; text-align: center;"> <tr> <td>difficult</td> <td>easy</td> <td>possible</td> </tr> <tr> <td>impossible</td> <td>hard</td> <td>right</td> </tr> <tr> <td>wrong</td> <td>interesting</td> <td>important</td> </tr> </table> <ul style="list-style-type: none"> • I think it is important to start with the characteristics of the population It was difficult to determine the variables. 		difficult	easy	possible	impossible	hard	right	wrong	interesting	important
difficult	easy	possible								
impossible	hard	right								
wrong	interesting	important								

Adapted from: <https://learnenglish.britishcouncil.org/en/english-grammar/infinitive>

B. Complete the following sentences with the correct infinitive from the chart.

apply use find describe

1. I think it is possible _____ a smaller population sample.
2. She is unwilling _____ another survey.
3. We were surprised _____ a correlation between these two issues.
4. He was unable _____ the final variable of the project.
5. It is interesting _____ the Bayesian model in terms of random variables.

Unit 2: Sharing knowledge

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 7



Facilitator: Teresita Calderón
Assistant: Sandra Rojas O.

Date: September 24th, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to orally present the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, delivery strategies, and vocabulary.

General Objective: properly deliver an introduction to a talk on a topic of moderate complexity in their field using delivery strategies, appropriate structures, and vocabulary.

1. successfully recall the names of five attention getters by saying the attention getter's name when they are shown an example.
2. correctly recognize three attention getters used by three speakers by writing the name of the strategy on the space provided.
3. properly associate seven sampling techniques with their definitions by solving a crossword puzzle.
4. appropriately use vocabulary related to sampling techniques by solving a case.
5. successfully deliver an introduction to a talk by using part of the information they were provided with in the previous task and by using adequate vocabulary.
6. correctly complete a set of sentences by writing the correct form of the verbs in parentheses.
7. successfully identify the parts of an introduction by listening to a speaker delivering an introduction.
8. properly identify specific details by listening to a speaker delivering an introduction.

Obj.	Procedures	Skill	Language Focus	Strategy	Time
	Routines: Greetings, write the date and objective, check attendance.				
1.	<p>Link: Remind Ss that last week, we studied five types of attention getters.</p> <p>Warm-up:</p> <ul style="list-style-type: none"> • Each Ss has to say a number following the sequence. When they have to say an odd number, they have to clap. If they say the number instead of clapping, they get a punishment. • An example of an attention getter will be shown on a ppt slide. The St who does not clap has to read the slide and identify the type of attention getter. <p>Materials: Material # 24: Power point slide</p>	R L S	<p>Startling statement Reference to statistics Current events Reference to subject Personal reference Odd number Even number</p> <p>Useful Language</p> <p><i>I remember that one is called...</i> <i>I think that one is ...</i> <i>I'm sorry I don't remember</i></p>	Activating background knowledge	10 min
2.	<p>Link: There are three other examples of attention getters: <i>asking questions, using a quote, or using humor</i> (the latter is not recommended because humor is cultural). However, it is important to recognize it.)</p> <p>Pre-task 1:</p> <ol style="list-style-type: none"> 14. Introduce the word – handicap-- 15. Ss listen to three speakers using a different attention getter each. 16. Ss choose the correct attention getter from the box. Then, they write it on the space provided. 17. Ss compare their answers. 18. Ts walk around the class monitoring Ss <p>Materials: Handout # 32</p>	L S W	<p>Humor Quote Asking a question-answer Handicap</p> <p>Useful Language</p> <p><i>What did you write in #...?</i> <i>I'm not sure about #...</i> <i>In number ... I wrote...</i></p>	Activating background knowledge	15 min

	<p>Video: https://www.youtube.com/watch?v=vYqsSD2Nvl4 <i>Attention getter 1: from 1:39 to 2:27</i> <i>Attention getter 2: from 2:33 to 3:13</i> <i>Attention getter 3: from 4:01 to 5:00</i></p>				
3.	<p>Link: Tell Ss that today they are going to write and deliver the whole introduction to a talk. So the following activities are going to provide them with part of the information they need to write and deliver the introduction properly.</p> <p>Pre-task 2:</p> <ul style="list-style-type: none"> • T. asks Ss to mention some sampling techniques they know. • Ss read the clues or definitions of seven sampling techniques. • Ss solve a crossword puzzle with the corresponding concepts. • Ss compare their answers. • Ts walk around the class monitoring Ss. <p>Materials: Handout # 33</p>	R L S W	<p>Sampling techniques Random sampling Convenience Systematic Judgment Snowball Quota</p> <p>Useful language</p> <p><i>What did you write in #...?</i> <i>I'm sorry I didn't do # ...</i> <i>Do you have # ...?</i></p>	Using cognates	15 min
4.	<p>Link: Tell Ss that now that they know the sampling techniques, they have to solve a case.</p> <p>Pre-task 3:</p> <ul style="list-style-type: none"> • Ss work in pairs. They read the case about choosing the most appropriate sampling technique to carry out a study. 		<p>Sampling techniques Random sampling Convenience Systematic Judgment Snowball Quota</p>	Negotiating meaning	15 min

	<ul style="list-style-type: none"> • Ss discuss the different sampling techniques they can use to carry out the investigation. • They choose the most suitable sampling technique to collect data. • Ss report their reasons for their choice to the class. • Ts walk around the class monitoring and assisting Ss. <p>Materials: Handout # 34</p>		<p>Useful language</p> <p><i>In this case, the best sampling technique is....</i> <i>In my opinion, the best sampling technique is...</i> <i>I agree / I don't agree</i> <i>Why do you think so?</i> <i>I see your point.</i></p>	Active listening	
5.	<p>Link: Now you are going to put together all the information and strategies that they can use in an introduction.</p> <p>Main task:</p> <p>Task:</p> <ul style="list-style-type: none"> • In pairs, Ss write an appropriate introduction for a talk that includes all its parts. • The topic of the talk will be the type of sampling technique that they chose in pre-task 3. • Each pair of Ss is assigned a different attention getter. (Use random-pickers to assign the types of attention gettershttps://www.classtools.net/random-name-picker/) • Grouping technique: puzzle parts <p>Planning stage:</p>	W L S	<p>Useful Language</p> <p><i>Recently, I carried out an investigation about...</i> <i>Did you know that...?</i> <i>I'm talking about...</i></p> <p><i>My presentation has three parts...</i> <i>The next thing I'll share with you is...</i> <i>Today, we will be covering three points...</i></p>	Delivery strategies Self-monitoring	10 min

	<ul style="list-style-type: none"> Ss rehearse the introduction for five minutes. Then, Ss work with people from other groups to present their introduction. T reminds Ss of using delivery strategies and providing feedback to their partners. Ts walk around monitoring and assisting Ss. <p>Reporting stage:</p> <ul style="list-style-type: none"> All students present their introduction to the class. <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Handout # 35</p>			10 min
				15 min
6.	<p>Error correction: Ss receive feedback on their performance during the previous activities.</p> <p>Post task: Future with <i>WILL</i></p> <ul style="list-style-type: none"> Ss look at three examples on the board. They decide on how to complete them. Ss read some information about how to use the future with <i>will</i>. Ss complete sentences with the negative and affirmative form of <i>WILL</i>. <p>Materials: Handout # 35</p>	R W L	<p>Useful Language</p> <p><i>Today I'll focus on three aspects... The presentation will cover four key elements.... I will not refer to the variables...</i></p>	10 min 10 min
	<p>Quiz # 2:</p> <ul style="list-style-type: none"> Ss take quiz # 2 corresponding to unit 2. 			

7.	<ul style="list-style-type: none"> • Ss do two listening exercises in which they identify main ideas and supporting details in a segment of an introduction. • They also have to identify the type of attention getter used by the speaker. 	L R W			15 min
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Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, St= student T= teacher, UL= Useful language

Vocabulary translation:

- Cluster sampling---conglomerado
- Judgement sampling – discrecional
- Random—aleatorio
- Multistage sampling—muestreo en etapas múltiples



Warm- up Game: Clap at odd numbers.

Read the statement. Tell what kind of attention getter it is.

There is a new social media user every 15 seconds.

22% of the world's total population uses Facebook with 2.01 billion monthly active users.

Recently, Donald Trump decided to impose new taxes on aluminum and steel...

I'm going to talk about the impact of the high cost of living on education...

A few years ago, while I was doing some data mining tasks for a famous bank I realized that

Answer key

1. Startling statement
2. Reference to statistics
3. Current events
4. Reference to subject
5. Personal reference

MORE ATTENTION GETTERS!

- A. Listen to the following attention getters, and on the line provided write the one that the speaker used. Use the options in the box. There are two extra options.

Speaker # 1: _____

Speaker # 2: _____

Speaker # 3: _____

Question

Reference to statistics

Quotation

Current events

Humor

Useful Language

I think the speaker used...

I agree / I disagree...

What do you think about speaker number...?



KEY- Crossword puzzle

4. C

1. R a n d o m

2. S

n

3. s t r a t i f i e d

v

6. q

e

t

n

e

i

m

7. s n o w b a l l

e

a

5. j u d g e m e n t

t

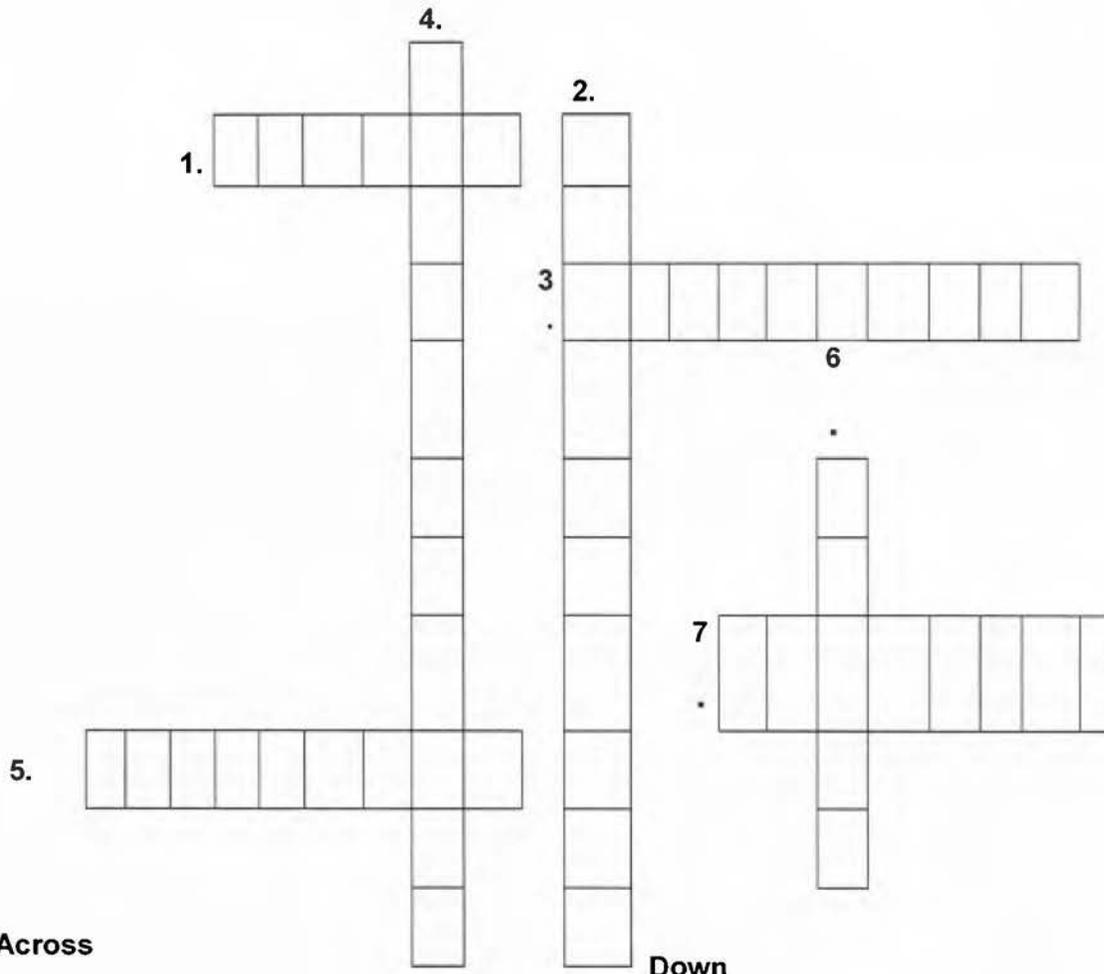
c

i

e

c

Read the clues to solve the following cross-word puzzle.



Across

Down

- 1. A sample that is chosen by chance. These samples are used to avoid bias and other unwanted effects.
- 3. It is superior to **random** sampling because it reduces sampling error. A stratum is a subset of the population that shares at least one common characteristic.
- 5. The researcher selects the sample based on reasoning. This is usually an extension of **convenience** sampling.
- 7. It is a special nonprobability method used when the desired sample characteristic is rare. This type of sampling relies on referrals from initial subjects to generate additional subjects.

- 2. It is also called an Nth name selection technique. After the required sample size has been calculated, every Nth record is selected from a list of population members.
- 4. It is used in exploratory research where the researcher is interested in getting an inexpensive approximation of the truth. This method is often used during preliminary research efforts to get a gross estimate of the results.
- 6. Like **stratified** sampling, the researcher first identifies the strata and their proportions as they are represented in the population.

Definitions taken from
<https://www.statpac.com/surveys/sampling.htm>

Stratified	Random	Convenience	Quota	Judgement
	Snowball		Systematic	



Handout # 34

- I. You and your partner have to carry out a research project to find out the reading proficiency level of 11th graders in Costa Rican high schools. Read the information below.

Problem Statement

At the end of this school year, the state is going to administer a reading test to a sample of eleventh graders. The school system has 20,000 eleventh graders, half boys and half girls. There are 1000 eleventh-grade classes, each with 35 students.

The maximum budget for this research is \$3600. The only expense is the cost to proctor each test session. This amounts to \$100 per session.

The purpose of the study is to estimate the reading proficiency level of eleventh graders, based on sample data. School administrators want to maximize the precision of this estimate without exceeding the \$3600 budget. What sampling method should you use?

Adapted from: <https://stattrek.com/survey-research/compare-sampling-methods.aspx>

- II. Choose the most appropriate sampling technique to carry out the project. Discuss the following questions:
- What is the best sampling technique that you can use?
 - What is the least expensive technique?
 - Is this technique the most precise?

Glossary:

- Half: half of 4 is 2
- Budget: the amount of money you can spend
- Proctor: makes sure that students do not cheat on the test (a proctor is the person who watches the students while they are taking a test).



Handout # 35

You are going to give a talk about the research project that you carried out on reading proficiency level in 11th graders. Refer to the sampling technique that you used in the investigation and its effectiveness. Follow the guidelines below.

- Include an appropriate greeting and welcome the audience.
- Write an interesting attention getter.
- State the goal of the presentation.
- Mention the main points of your presentation.

I. Greeting:

II. Attention Getter:

III. Goal of the presentation:

FUTURE WITH WILL

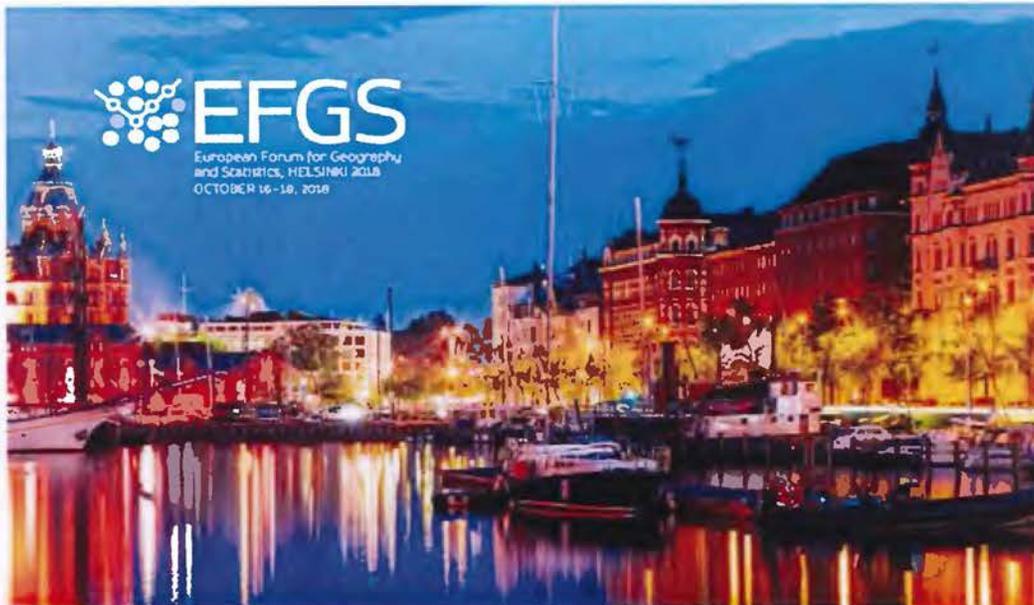
A. Analyze the information in the following chart.

<p>* WILL: we often use <i>will</i> when we promise to do something. The negative form of <i>will</i> is "will not" or "won't". There is no -s on the third person singular (she, he, it).</p>
<ul style="list-style-type: none">• Today I will focus on three reasons why cluster sampling is the best method...• The presentation will cover four key elements about the research procedures...• In this presentation, I will not talk about standard error...
<p>Contractions:</p>
<p>I'll do the homework in the afternoon, but I won't have time to study.</p> <p>She'll do a research project, but she won't publish it.</p> <p>They'll design a questionnaire, but they won't test it this week.</p>

*Taken from: Murphy, R. (2006). *Grammar in use: Intermediate*. Cambridge University Press

B. Complete the sentences with **will** + the correct form of the verb.

1. The speaker _____ (not/mention) the variables she used.
2. Mr. Thompson _____ (talk) about descriptive statistics.
3. Professor Stevens _____ (analyze) road accidents based on regression models.
4. Ms. Lennox _____ (not / speak) about the Frequentist approach.
5. Dr. Knox _____ (use) a non-random sampling technique in his current research project.



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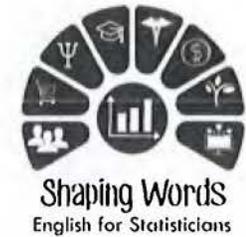
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Unit 2: Sharing knowledge

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 8



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: October 1st, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to orally present the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, delivery strategies, and vocabulary.

General Objective: By the end of the lesson, the students will be able to successfully describe results from graphs or figures of a research by using the appropriate vocabulary and structures.

Specific Objectives: The students will be able to:

1. successfully identify vocabulary related to descriptions of graphs and statistics by answering questions in a QR treasure hunt.
2. appropriately describe a graph about unemployment rate by brainstorming ideas with a partner.
3. correctly recognize the basic trends to describe graphs by classifying verbs and nouns in the corresponding movement.
4. properly show understanding of graph descriptions by matching figures to their corresponding interpretations.
5. appropriately describe results from graphs or figures to their classmates orally by identifying trends and noticeable data.
6. correctly complete a set of sentences by writing an adjective or adverb form.
7. successfully deliver an introduction to a talk within their field using appropriate delivery strategies and organization.

Obj	Procedures	Skills	Language focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.	L R			5 min
1	<p>Link: Previously, we talked about introductions, the structure of a talk and the organization of the introduction to a talk. What sections from a talk do you pay more careful attention to? (Try to elicit "results" from Ss). Today we are going to work on vocabulary related to presenting results.</p> <p>Warm-up:</p> <ul style="list-style-type: none"> In pairs or small groups, Ss will participate in a QR Treasure Hunt. They will receive handout # 37 with a list of questions and statements they need to complete. Ss will look for the codes pasted around the classroom in order to complete the hunt. The group that finishes first will be the winner. UL for interaction will be written on the board. T will walk around to monitor Ss and provide help if necessary. Ss will share their answers with the whole class. <p>Material # 27. PPT Material #28: QR codes Handout # 37</p>	L S R	<p>Vocabulary</p> <p>Axis Pie/bar/line graph Diagram Trend Mean</p> <p>UL</p> <p>What do you think about...? I think number 1 is... I found the next code.</p>	Activating background knowledge	10 min
2	<p>Link: How do people tend to present results? (Try to elicit "graphs or figures"). What kind of graphs do you prefer to use? Tell Ss that line graphs are commonly used to show trends.</p>	L S R	<p>UL</p> <p>The graph shows ... I agree/disagree with you. I can start.</p>	Activating background knowledge	

	<p>Schema Activation:</p> <ul style="list-style-type: none"> Ss will look at a graph on a slide of a PPT. In pairs, they will answer the question: What does the graph tell us about unemployment rate? Ss will share their ideas with the whole class. T will walk around to check Ss' performance by taking notes. UL will be written on the board. <p>Material: Material # 29: Graph</p>		I think there is a/an increase...		5 min
3	<p>Link: How do we describe graphs? What do think we need to mention first? There are three main ways to describe trends in a graph. Let's find out.</p> <p>Pre-task #1:</p> <ul style="list-style-type: none"> Ss will receive a graph (handout # 38.1) and a paragraph (handout # 38.2) describing it. They will pay special attention to the highlighted verbs and nouns to classify them into the three basic trends <i>upward movement</i>, <i>downward movement</i> and <i>no movement</i>. In pairs, Ss will compare their ideas. Then, Ss will share their answers with the whole class. T will walk around to monitor Ss and take notes on their performance. UL will be written on the board. <p>Materials: Handout # 38.1 and 38.2.</p>	L S R W	<p>Vocabulary Upward Downward Rise Increase Decrease Go up Drop Fall Remain stable Stay the same</p> <p>UL I think it is... I'm not sure but I think this verb refers to <u>upward</u>. What do you think about #1? I agree/disagree with you.</p>	Using cognates Negotiating meaning	10 min 5 min
4	<p>Link: Now we have more vocabulary related to descriptions, but how can we organize the description?</p> <p>Pre-task #2:</p>	L S R	<p>Vocabulary Dramatic Steady Significant Demonstrate</p>	Negotiating meaning	

	<ul style="list-style-type: none"> • In small groups, Ss will receive three graphs and strips of paper with their descriptions. • Ss will read the descriptions and match them to their corresponding graph. • Then, they will check with the whole class. • T will walk around the room helping and monitoring Ss. <p>Link: Do you notice any elements in the description? Most of the time people first identify what the graph is about, what is happening or what happened, the main trend in the graph, and there is a detail description of the sections of the graph (T will elicit examples from Ss).</p> <p>Materials: Material # 30 -31 descriptions and graphs. Handout # 39</p>		<p>Illustrate Indicate UL</p> <p>I think this description goes here. No, I don't think so. I think these two match. What do you think about...? How about this one?</p>		<p>10 min</p> <p>5 min</p>
5	<p>Main Task: Your turn!</p> <p>Task: In small groups, Ss will receive a different graph about a specific research. They will come up with a possible interpretation of the graph. Ss can write several statements using the vocabulary previously studied. Each group will have a specific role (A. Ss will present the results of a study related to Costa Rica's position in the edition of Global Competitiveness Report for the Ministry of Economy. Their graph is about Costa Rica's economic competitive position in the world between 2008 and 2018; B. They will work as a consultant at Banco Nacional de Costa Rica. They will presenting the results of a study related to Costa Rica's interest rate. Their graph is about Costa Rica's official interest rate from 2010 to 2018; and (C. They will present the results of a study related to Costa Rica's government budget for a research project at UCR. Their graph includes</p>	L S R W	<p>UL for interaction</p> <p>I think we can mention... I agree/disagree with you... First, we need to mention the type of chart... Then, we can describe the trend... What do you think about the main trend? I think there is an increase in...</p> <p>UL</p> <p>The chart/graph shows/indicates... We can see from the chart that there is a rise/a decrease/an increase in... There was a significant/dramatic/sudden change...</p>	Using fixed expressions	<p>10 min</p> <p>10 min</p> <p>5 min</p> <p>5 min</p>

	<p>the percent of Gross Domestic Product (GDP) in Costa Rica from 2008 to 2017)(Grouping strategy: numbers and colors)</p> <p>Planning stage: Ss will work with people from different groups to share their descriptions of the graphs orally.</p> <p>Reporting stage: Some students will share their descriptions orally with the whole class as the audience in their specific context they were assigned before.</p> <p>T will walk around monitoring and assisting Ss.</p> <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Handouts # 40 -43.</p>				
6	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post task: adjective + noun/ verb + adverb</p> <ul style="list-style-type: none"> Ss will look at two examples on the board. They will pay special attention to the underlined words. T will ask Ss what the difference between both phrases is. Ss will read some information about how to use the adjectives before nouns and adverbs after verbs to add more precision to our descriptions. Ss will complete sentences with an adjective or adverb from a wordbank. Then, they will compare with a partner. Ss will check with the whole class. <p>Material: Handout # 44</p>	L S R W	<p>Grammar</p> <p>Use adjectives before nouns and adverbs after verbs. There is/was a/an + adjective + noun Subject + verb + adverb</p> <ul style="list-style-type: none"> - There was a significant increase in sales. - Sales increased significantly in 2017. <p>UL</p> <p>I'm not sure, but I think the correct answer is... What do you think about #1? I agree/disagree. What did you write in number 2? I wrote... in number 2.</p>		10 min 10 min



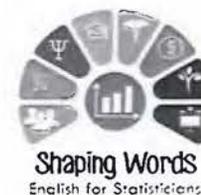
Warm-up: QR Treasure Hunt

You are participating in a competition. Your mission is to find the 6 QR codes pasted around the auditorium to find the answers. Scan the QR Code with your smartphone.

Questions	Answer
1) What are the components of a graph?	
2) What's a trend in a graph?	
3) What type of graph is used to show percentages?	
4) # Guitars sold 12 15 20 8 15 18 17 21 10 24 What is the mean of the number of guitars sold in 2010?	
5) 22, 14, 13, 13, 11, 16, 16 What is the median?	
6) What type of graph is used to compare different sets of information?	

ANSWER KEY

Warm-up: QR Treasure Hunt



You are participating in a competition. Your mission is to find the 6 QR codes pasted around the auditorium to find the answers. Scan the QR Code with your smartphone.

Questions	Answer
1) What are the components of a graph?	Axis, titles, legends, footnotes and diagram
2) What's a trend in a graph?	Trends are changes or movements. These changes are normally expressed in numeric items, for example, population, production volumes or unemployment. There are three basic trends.
3) What type of graph is used to show percentages?	Pie chart
4) # Guitars Sold 12 15 20 8 15 18 17 21 10 24 What is the mean of the number of guitars sold in a 2010?	16
5) 22, 14, 13, 13, 11, 16, 16 What is the median?	14
6) What type of graph is used to compare different sets of information?	Bar chart

Unit 2: Sharing knowledge

Material #29

QR Codes





Handout # 38.1

Pre-task #1: Basic trends

A. Read the following description of a graph from research on the use of dietary supplements by children in the United States. Look at the graph and pay attention to the underlined words.

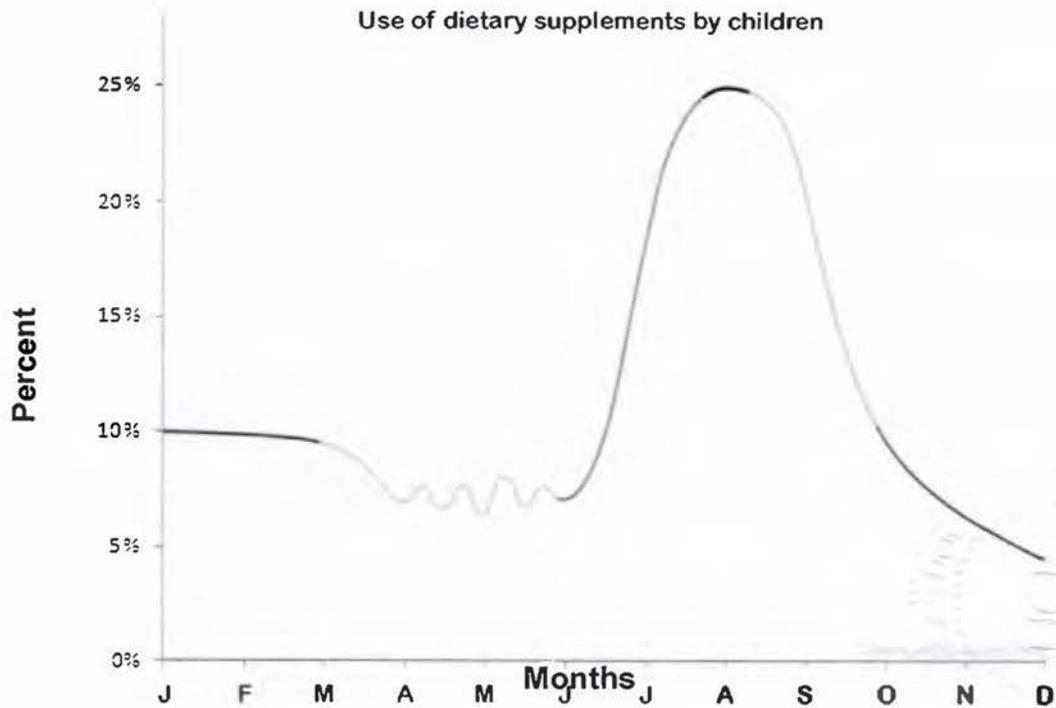
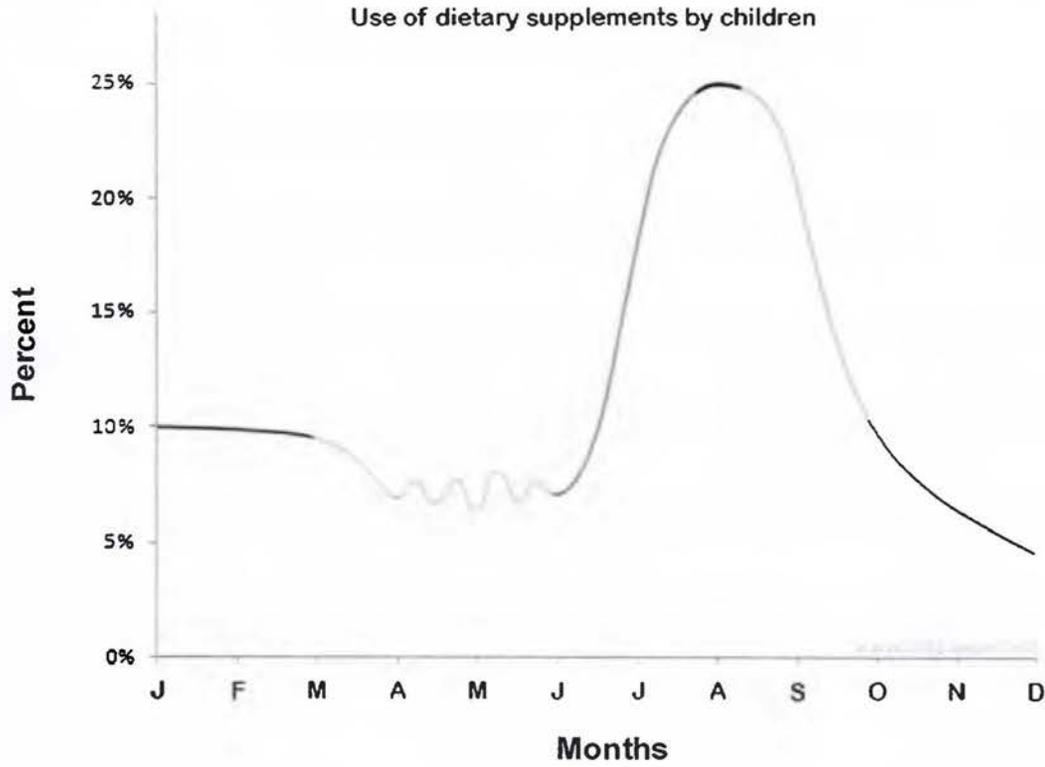
From January to March the percentage of children using supplements remained stable at approximately 10%. The graph shows a slight decrease in March. It went up and down widely over the next two months. There was a significant increase in the percentage of children taking dietary supplements between June and August. The biggest rise was from June to August when it rose by 22% for two consecutive months. Between August and October, this figure dropped dramatically to 11%. There was a fall of 5% in December.

B. Based on the description, write the underlined words in the corresponding column and movement.

Movement	Verbs	Nouns (can be preceded by <i>a/an</i> or <i>the</i>)
Upward 	1. _____ 2. _____ 3. _____ up	4. an _____ 5. a r _____
Downward 	6. _____ down 7. _____ 8. d _____	9. a _____ 10. a f _____
No movement 	Stay the same 11. _____	

Pre-task #1: Basic trends

Handout # 38.2



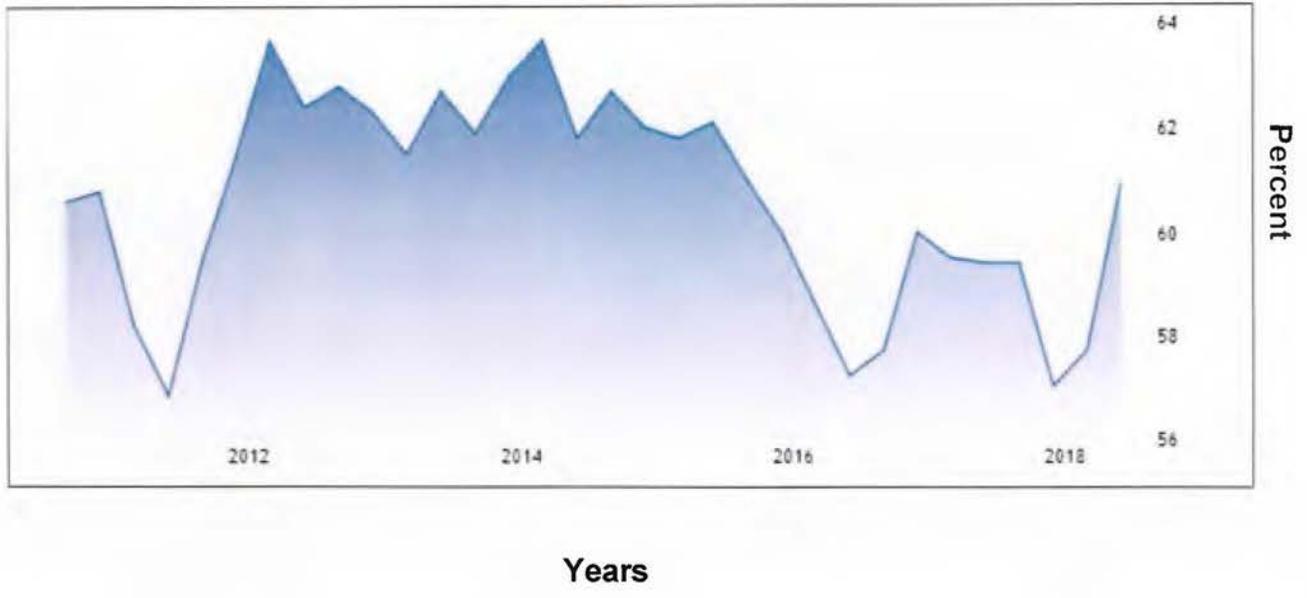
Pre-task #2: What does the graph show?

1. The graph shows the rate of smoking. In 1960, 600 men in every 1,000 were smoking. This number decreased gradually to 500 by 1974 and continued to decrease in 1995. In contrast, the rate of women smokers in 1960 was very low at only 80 in every 1,000. This number increased to 170 by 1968 and increased again in 1977. The rate of female smokers then remained stable at 320 until 1984 and then the figures began dropped to 250 in 1995.

2. There are three graphs in the chart. The green graph shows the total growth of the population, the black one illustrates the migrated people in Canada and the blue graph shows the natural increase of the population. In 1988/89, there was an enormous growth. In the following years, the total growth went down to about 250,000 in 1998/99. So, we can say that the growth of the population in Canada is based on migration.

3. We can see from the chart that there is a rise in the Labor Force Participation Rate in Costa Rica. It increased to 57.70 percent in the first quarter of 2018 from 57 percent in the fourth quarter of 2017. Labor Force Participation Rate in Costa Rica averaged 60.62 percent from 2010 until 2018. In the second quarter of 2011, it dropped to 56.80 percent.

A

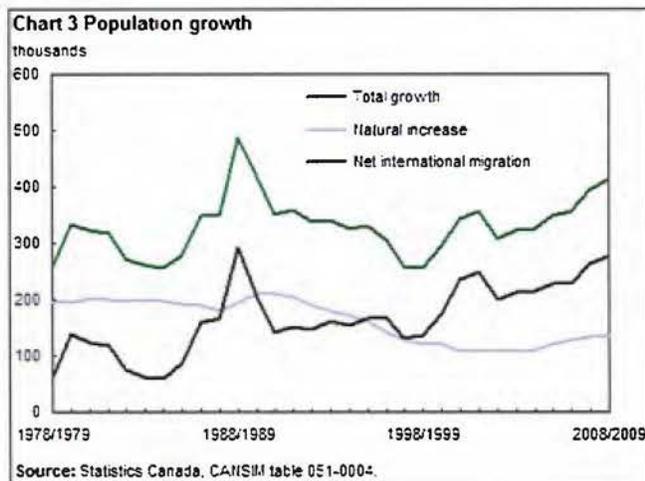


Pre-task #2: What does the graph say?

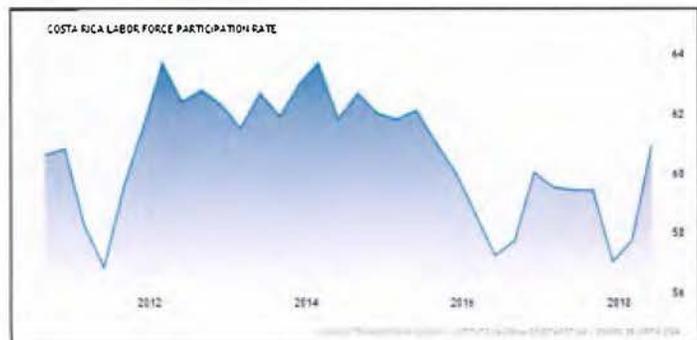
1. The graph shows the rate of smoking. In 1960, 600 men in every 1,000 was smoking. This number decreased gradually to 500 by 1974 and continued to decrease in 1995. In contrast the rate of women smokers in 1960 was very low at only 80 in every 1,000. This number increased to 170 by 1968 and increased again in 1977. The rate of female smokers then remained stable at 320 until 1984 at which point the figures began to decline and dropped to 250 by 1995.



2. There are three graphs in the chart. The green graph shows the total growth of the population, the black one illustrates the migrated people in Canada and the blue graph shows the natural increase of the population. In 1988/89, there was an enormous growth. In the following years, the total growth went down to about 250,000 in 1998/99. From that time on the Canadian population has been gradually growing again although the natural increase slows down. So, we can say that the growth of the population in Canada is based on migration.

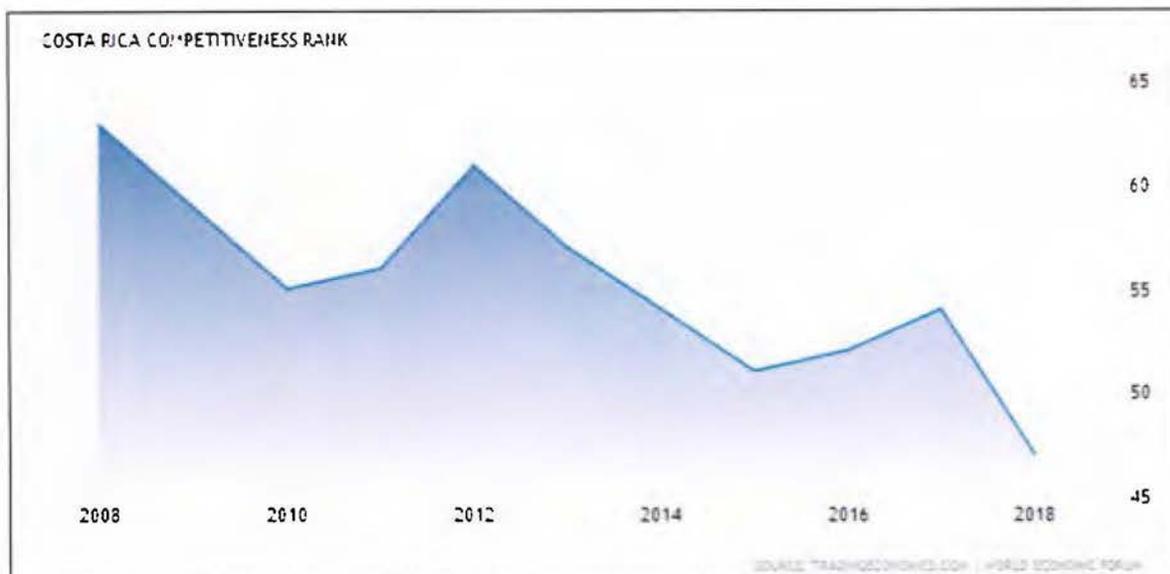


3. We can see from the chart that there is a rise in the Labor Force Participation Rate in Costa Rica. It increased to 57.70 percent in the first quarter of 2018 from 57 percent in the fourth quarter of 2017. Labor Force Participation Rate in Costa Rica averaged 60.62 percent from 2010 until 2018. In the second quarter of 2011, it dropped to 56.80 percent.



Main Task #1: Your Turn!

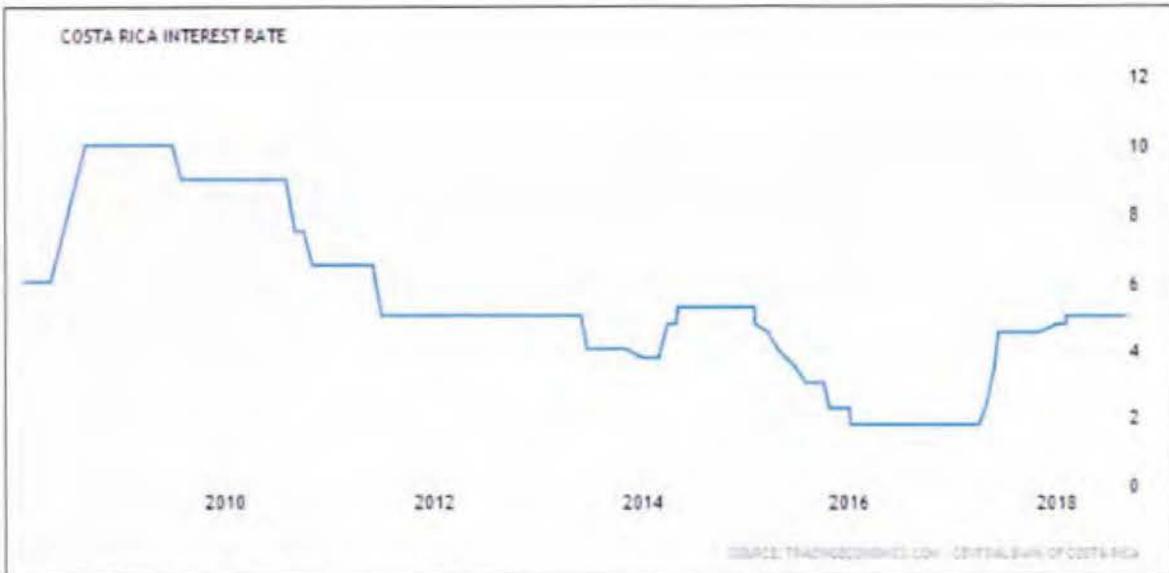
- A. You are presenting the results of a study related to Costa Rica's position in the edition of Global Competitiveness Report for the Ministry of Economy Your graph is about Costa Rica's economic competitive position in the world between 2008 and 2018. Look at the figure below and write a description to present it to an audience.



Graph taken from <https://tradingeconomics.com/costa-rica/>

Main Task #2: Your Turn!

- A. You are working as a consultant at Banco Nacional de Costa Rica. You are presenting the results of a study related to Costa Rica's interest rate. Your graph is about Costa Rica's official interest rate from 2010 to 2018. Look at the figure below and write a description to present it to an audience.



Handwritten area with horizontal lines for writing a description.

Main Task #2: Your Turn!!

Handout # 42

- A. You are presenting the results of a study related to Costa Rica's government budget for a research project at UCR. Your graph includes the percent of Gross Domestic Product (GDP) in Costa Rica from 2008 to 2017. Look at the figure below and write a description to present it to an audience.



Main Task #2: Your Turn!

Handout # 43

Useful Language	
Introduction (Identify what the graph is about)	<ul style="list-style-type: none"> • The graph shows the number of cases of <i>X disease</i> in <u>Australia</u> between the years <u>1960</u> and <u>1995</u> ... • The chart indicates/illustrates ... • This report examines the changes in the total <u>property crime rate</u> between <u>2000</u> and <u>2007</u>. • The line graph shows the <u>percentage of children using supplements</u> in a place over a year.
Describe the main trend	<ul style="list-style-type: none"> • There was a <u>rise</u> from <u>600</u> to <u>900</u> cases in <u>2000</u>. • We can see from the chart that there is an <u>increase of 2.1%</u> in the <u>crime rate</u> in <u>Costa Rica</u>. • After being stable for a few months, the rate <u>slightly dropped</u> to around <u>780</u> in <u>2007</u>. • There was a <u>significant/dramatic</u> change in...

Useful Language	
Introduction (Identify what the graph is about)	<ul style="list-style-type: none"> • The graph shows the number of cases of <i>X disease</i> in <u>Australia</u> between the years <u>1960</u> and <u>1995</u> ... • The chart indicates/illustrates ... • This report examines the changes in the total <u>property crime rate</u> between <u>2000</u> and <u>2007</u>. • The line graph shows the <u>percentage of children using supplements</u> in a place over a year.
Describe the main trend	<ul style="list-style-type: none"> • There was a <u>rise</u> from <u>600</u> to <u>900</u> cases in <u>2000</u>. • We can see from the chart that there is an <u>increase of 2.1%</u> in the <u>crime rate</u> in <u>Costa Rica</u>. • After being stable for a few months, the rate <u>slightly dropped</u> to around <u>780</u> in <u>2007</u>. • There was a <u>significant/dramatic</u> change in...

Post-task: Let's look at the structure

Handout # 44

A. Read the following chart and pay attention to the examples.

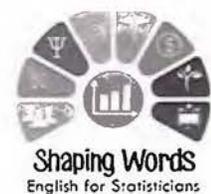
We use adjectives and adverbs to describe the degree of change of the data.	
Adjective + noun	Verb + adverb
There was a <u>dramatic change</u> in the number of people using the services.	Between August and October, this figure <u>dropped dramatically</u> to 11%.
The graph shows a <u>significant decrease</u> in March.	Sales <u>increased significantly</u> in 2017.
More examples	
Adjective	Adverb
Dramatic	Dramatically
Significant	Significantly
Drastic	Drastically
Steady	Steadily
Slight	Slightly

B. Complete the following sentences with an adjective or adverb based on the structure and context. Use the words from the wordbank. Do not repeat any.

slightly	dramatic	steady
drastically	dramatically	significant

- In 1960, 600 men in every 1,000 were smoking. This number decreased _____ to 550 by 1974.
- The number of cases of diabetes started at 50 in 1965 and there was a _____ rise to 100 in 1965.
- There was a _____ increase in the cost of living over several years. It has remained constant.
- From October to December, there was an important change. Attendance rose _____. Authorities were pleased with the results.
- In 2000 the total property crime rate was 2500 offences per 100 000 population. Surprisingly, the rate went up _____ and reached 3800 in 2001.
- There was a _____ increase in the value of the dollar. It changed from 500 to 600.

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas.



Unit 2: Sharing knowledge

**Material #32
Speaking Test**

XIth ISDC 2018

11TH INTERNATIONAL STATISTICS DAYS CONFERENCE

3-7 OCTOBER 2018
BOURUM KEFALUKA RESORT HOTEL
MUGLA - BODRUM - TURKEY

MUGLA
ÜNİVERSİTESİ

KEFALUKA GRAMMY

igs2018.mu.edu.tr

Image taken from <http://www.igs2018.mu.edu.tr/#>

Universidad de Costa Rica
Shaping Words
Facilitators: Teresita Calderón & Sandra Rojas.



Shaping Words
English for Statisticians

Material #33

Unit 2: Sharing knowledge

Sample badges



Unit 2: Sharing knowledge

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 9



Facilitator: Teresita Calderon Q.
Assistant: Sandra Rojas O.

Date: October 8th, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to orally present the introduction to a talk about a research project when participating as presenters at conferences by using appropriate structures, delivery strategies, and vocabulary.

General Objective: By the end of the lesson, the students will be able to successfully describe results from graphs or figures of a research by using the appropriate vocabulary and structures.

Specific Objectives: The students will be able to

1. successfully recall words related to graph description studied last week by brainstorming words.
2. properly identify graph descriptions by matching five sentences to the corresponding graph.
3. correctly pronounce large numbers and dates by completing an information gap activity.
4. accurately identify words that compare trends in a graph by classifying sentences as true or false.
5. correctly use words that describe trends in a graph by completing sentences in a paragraph.
6. successfully compare the information given in two different graphs by analyzing it and presenting their analysis to the class.
7. properly identify the rules about comparative and superlative adjectives by completing sentences.
8. properly carry out a networking conversation by participating in a conference simulation coffee break.
9. successfully deliver an introduction to a talk by participating in a conference simulation.

Obj.	Procedures	Skills	Language Focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance, and check homework.				10 min
1.	<p>Link: Remind Ss that last week we studied how to describe graphs. Today, we are going to review that.</p> <p>Warm – up:</p> <ul style="list-style-type: none"> • T divides the class into two teams. Each team is given a small piece of paper. • When the T. says “start”, Ss write a word that can be used to describe a graph. • Then, Ss pass the paper around so that each St writes a new word. They pass the paper around until the teacher says “stop”. • T collects and checks the words. The group that writes more words wins. 		<p>Vocabulary</p> <p>Increase Decrease Fall Drop</p> <p>UL</p> <p>It’s my turn. I can’t remember a word.</p>	Brainstorming	5 min
2.	<p>Link: We are going to review the words that are used to describe a graph.</p> <p>Schema activation:</p> <ul style="list-style-type: none"> • T posts four graphs around the room. • Ss work in pairs. Each pair of students is given three sentences that describe each graph. • Ss walk around the class analyzing the different graphs. They post the sentences under the corresponding graph. The group that finishes first gets a prize. • Then, Ss walk around to read the information below each graph. • Ts walk around the class monitoring Ss. 	L R S	<p>Vocabulary</p> <p>Increased Decreased Dropped Fell Steadily Drastically Sharply</p> <p>UL</p> <p>I think this sentence describes graph A. No, I don’t think so...</p>	Activating prior knowledge	15 min

	Materials: Material # 34 Graphs and sentences		Yes, that's right...		
3.	<p>Link: Tell Ss that when describing graphs, it is important to know how to pronounce numbers and dates. Use the board to review how to say big numbers.</p> <p>Pre-task 1: Information gap</p> <ul style="list-style-type: none"> T. shows a ppt slide with five numbers for them to read. T. models pronunciation. Ss work in pairs. Each St gets a different graph with a different set of data. Below each chart, there is an empty chart. Ss have to complete the chart by asking each other questions about the graphs they have. Ss compare their answers with the original graph. Ts walk around monitoring Ss work. <p>Materials: Handout #: 45 a and 45 b</p>	R L S W	<p>Vocabulary</p> <p>Three-hundred thousand Three-hundred-sixty thousand July 2017 January 2018</p> <p>UL</p> <p>Now, it's your turn. Can you repeat please? Can you speak more slowly, please?</p> <p>What was the GDP from <u>July 2015 to January 2016</u>? The GDP in that period was around / approximately 700 000 million colones</p>	Asking for clarification	15 min
4.	<p>Link: Tell Ss that when we describe graphs, we sometimes compare data.</p> <p>Pre-task 2</p> <ul style="list-style-type: none"> T gives Ss handout # 46-a with a graph and seven sentences that describe the graph. Ss have to read the sentences and decide if the statements are true or false based on the graph. Ss compare their answers. 	R W L S	<p>Vocabulary</p> <p>The most significant The highest Higher than The lowest Lower than The greatest More productive than First, second, third quarter</p>	Activating prior knowledge	10 min

	<ul style="list-style-type: none"> Then, Ss classify the underlined words in the sentences according to the number of things they compare. Ss use handout 46-b. Ts walk around monitoring Ss. <p>Materials: Handout # 46-a and 46-b</p>		<p>UL</p> <p>I think this one is true / false. I think this one goes here. I think this word compares two things.</p>		
5.	<p>Link: Let's continue with comparatives in context.</p> <p>Pre-task 3:</p> <p>19. T. gives Ss a graph and its description with missing information.</p> <p>20. Ss complete the text. Then, they practice saying the information aloud.</p> <p>21. Ss present the data to a classmate. Encourage Ss to use the read and look up technique.</p> <p>22. Ts walk around monitoring Ss.</p> <p>Materials: Handout #47</p>	R W S	<p>Vocabulary</p> <p>The most significant More significant The biggest Bigger than The highest Higher than The lowest Lower than</p> <p>UL</p> <p>What did you write in number 1? I wrote ____. I didn't write that one. I think this one is wrong.</p>	Read and look up	15 min
6.	<p>Link: Now, that we have practiced vocabulary, it is your turn to describe a graph using your own words.</p> <p>Main Task:</p> <p>Task:</p> <ul style="list-style-type: none"> Ss work in pairs. Each St is given a different graph and instructions for the main task. They have to analyze the information in their 	R L S W	<p>Vocabulary</p> <p>Increased / decreased fell / dropped slightly drastically steadily The highest / the lowest</p>	Read and look up technique	20 min.

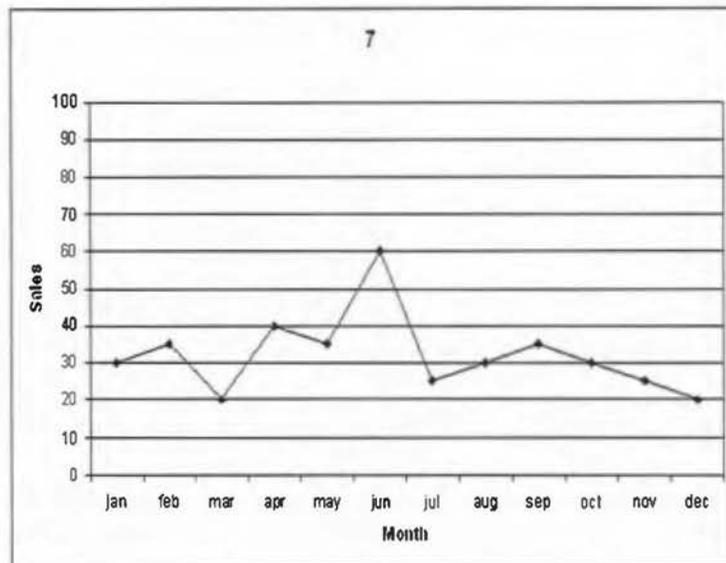
	<p>corresponding graph individually. Ss pretend they work at the Ministry of Economy, and they are in charge of investigating the GDP growth in two main sectors (construction and agriculture). The government needs to know which sector is more productive in order to find a strategy to increase its productivity.</p> <ul style="list-style-type: none"> Ss compare the data in each graph with a partner. <p>Planning:</p> <ul style="list-style-type: none"> Ss write a description of both sets of data in their corresponding worksheet in order to present it to another classmate. Ss rehearse the presentation. Ss present the analysis of their graphs to another group. <p>Reporting: Two or three Ss present the information to the whole class.</p> <p>Ts. will walk around monitoring and assisting Ss.</p> <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Handouts 48a, 48b, and 48c</p>		<p style="text-align: center;">UL</p> <p>This graph shows/illustrates... GDP was higher/ lower in...than in... The highest/ lowest point was in...</p>		
7.	<p>Error correction: T. writes grammatical and pronunciation mistakes on the board in order to correct them.</p> <p>Post-task:</p>	L S R W	<p style="text-align: center;">Grammar</p> <p>The <u>bigges</u> rise was from June to August. The increase in 2018 is <u>bigger</u> than the <u>one</u> in 2017.</p>		10 min

	<ul style="list-style-type: none"> • T. writes two sets of sentences on the board and asks Ss to identify the differences. • T. gives Ss a handout with the rules on how to form comparatives and superlative adjectives. • Ss complete sentences using the comparative or superlative adjectives. • Ss compare their answers. • Ts walk around the class monitoring Ss. <p>Materials: Handout # 49</p>		<p style="text-align: center;">UL</p> <p style="text-align: center;">I'm not sure, but I think the correct answer is...</p> <p style="text-align: center;">What do you think about number 1? I agree/disagree</p> <p style="text-align: center;">What did you write in number 2? I wrote... in number 2</p>		
8.	<p>Conference simulation</p> <ul style="list-style-type: none"> • T. evaluates Ss performance at a simulated international conference. • Ss role-play a conversation at a conference break. • Ss have prepared the introduction to a conference in advanced. Today they present it by including signposting language and using the delivering strategies learned in class. <p>Materials: Material # 35 Badges and poster</p>	L S		Using delivery strategies Active listening	50 min

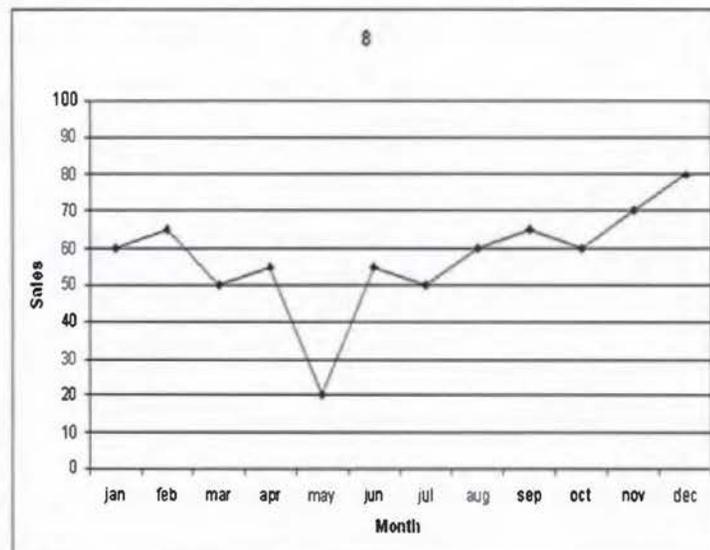
Abbreviations: T= teacher Ss = students St = student R= reading L=listening W= writing S= speaking

Schema Activation

1. There was a dramatic increase in June.
2. Sales fluctuated from January to June.
3. Sales dropped sharply in July.



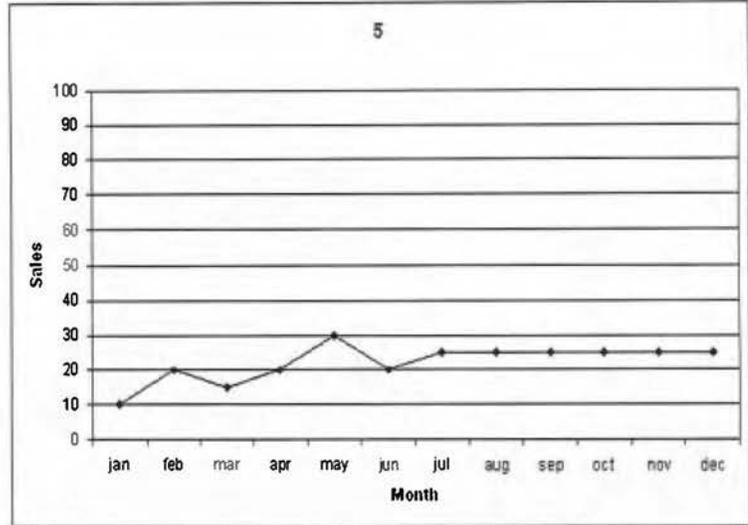
1. Sales increased gradually from July to September, but fell slightly in October.
2. There was a drastic drop in May.
3. In March and April, sales rose slightly.



1. Sales remained steady from July to December.

2. Sales increased marginally from March to May.

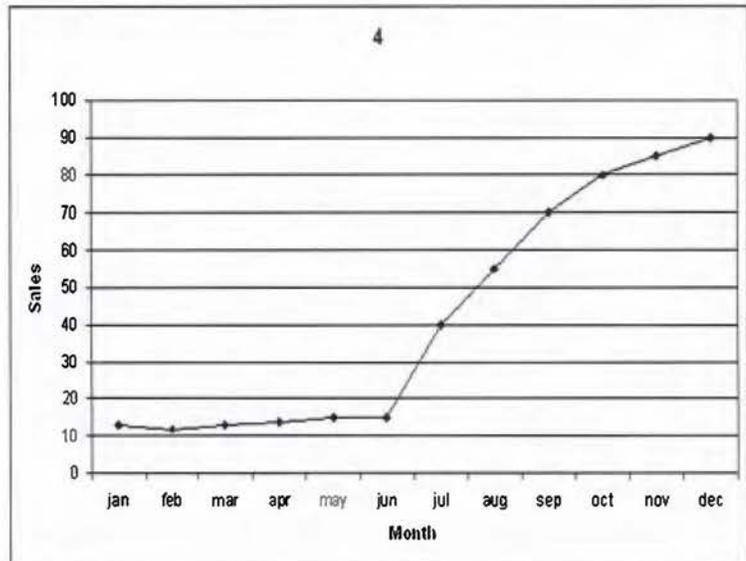
3. There was a slight drop during February.



1. Sales leveled off from January to June.

2. There was a steady increase in sales from June to December.

3. Sales peaked sharply in July.



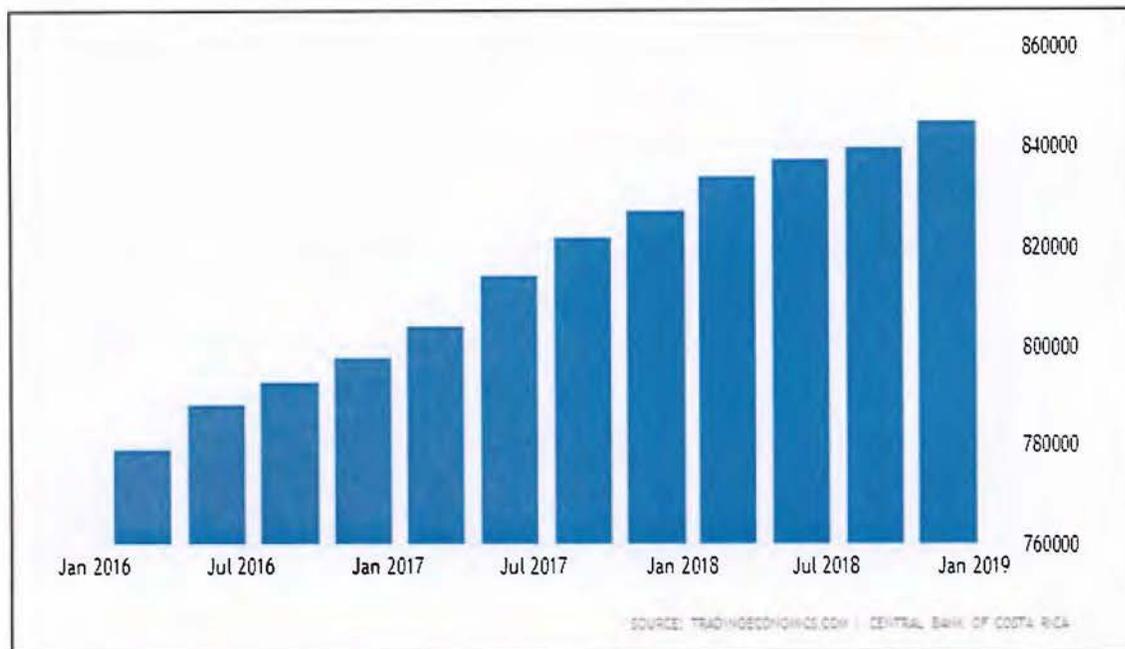


Pre-task # 1

Handout # 45 -a

Student A:

The graph below shows Costa Rica Gross Domestic Product (GDP) from the manufacturing sector. Ask your classmate questions to complete the missing information in your chart.



Student A: What was the GDP from July 2015 to January 2016?

Student B: The GDP in that period was **around / approximately** 700 000 million colones

GDP from January to March 2016	GDP from April to June 2016	GDP from October to December 2016	GDP from January to March 2017
GDP from April to July 2017	GDP from July to December 2017	GDP from January to April 2018	GDP from April to July 2018

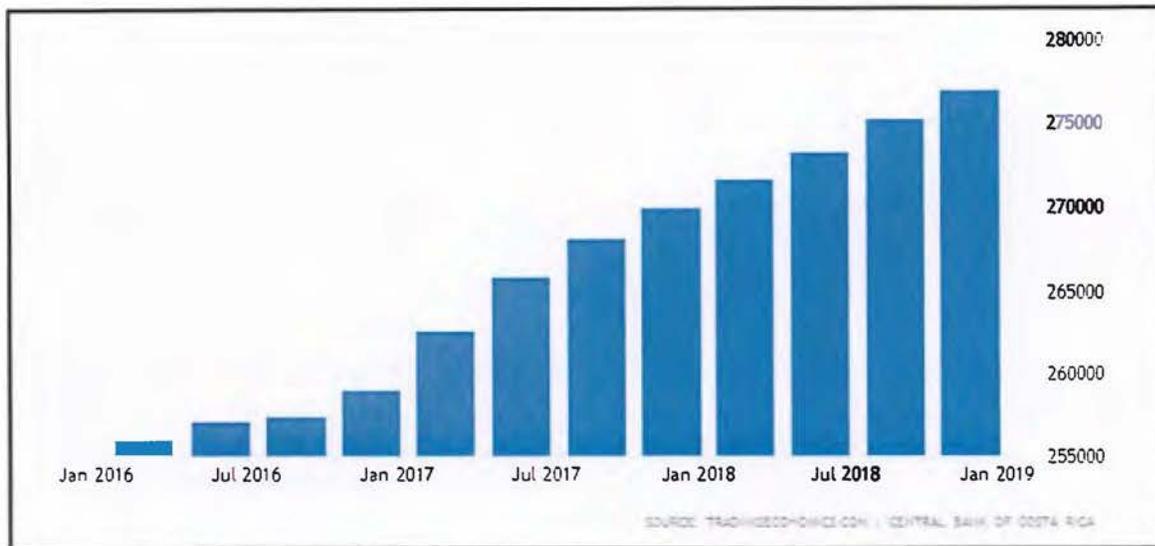


Pre-task # 1

Handout # 45 -b

Student B:

The graph below shows Costa Rica Gross Domestic Product (GDP) from the transport sector. Help your partner complete a report.



Example:

Student A: What was the GDP from July 2015 to January 2016?

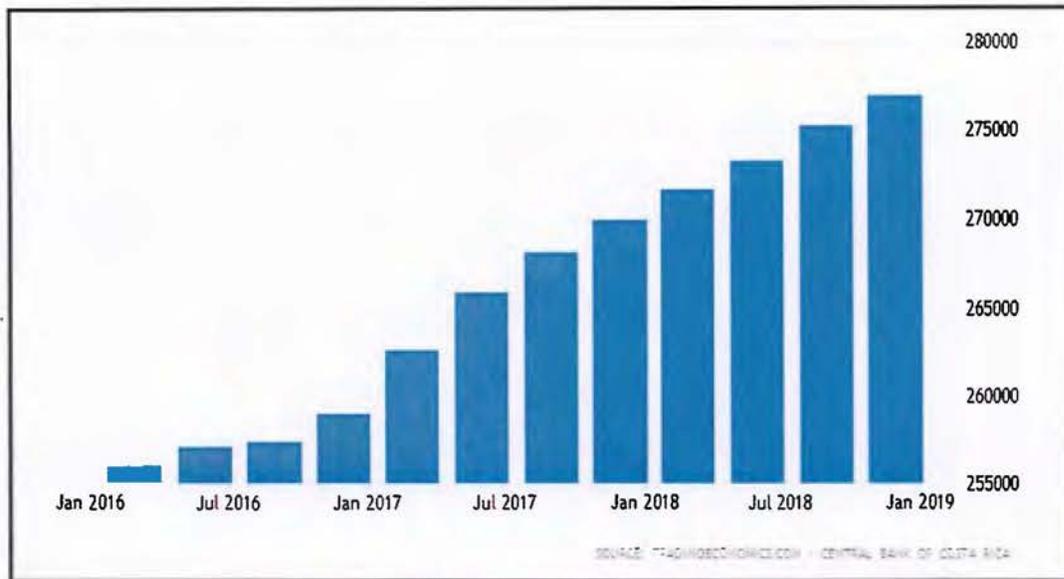
Student B: The GDP in that period was around / **approximately** 2550 000 million colones

GDP from January to March 2016	GDP from April to June 2016	GDP from October to December 2016	GDP from January to March 2017
GDP from April to July 2017	GDP from July to December 2017	GDP from January to April 2018	GDP from April to July 2018

Pre-task 2

Handout # 46 a

I. Analyze the graph about Costa Rica Gross Domestic Product (GDP) in transport. Read the sentences carefully. Write T if the statement is *True* or F if it is *False*. Then, compare your answers with a classmate's.



- _____ The graph illustrates that the **lowest** growth of GDP was during the second semester of 2015.
- _____ During the third quarter of 2016, the GDP was **higher than** the GDP in the same period of 2015.
- _____ During the third quarter of 2017, GDP reached the **most significant** decrease.
- _____ In the last quarter of 2017, GDP was **lower than** in the second quarter.
- _____ GDP reached its **highest** point during the third quarter of 2018.
- _____ Comparing GDP growth from 2015 to 2018, the graph shows that **the greatest** increase occurred during the third quarter of 2018.



Pre-task 2

Handout # 46 b

I. Classify the underlined words from the previous exercise in the chart below.

Words used to compare two things	Words used to compare three or more things



Pre-task 2

Handout # 46 b

I. Classify the underlined words from the previous exercise in the chart below.

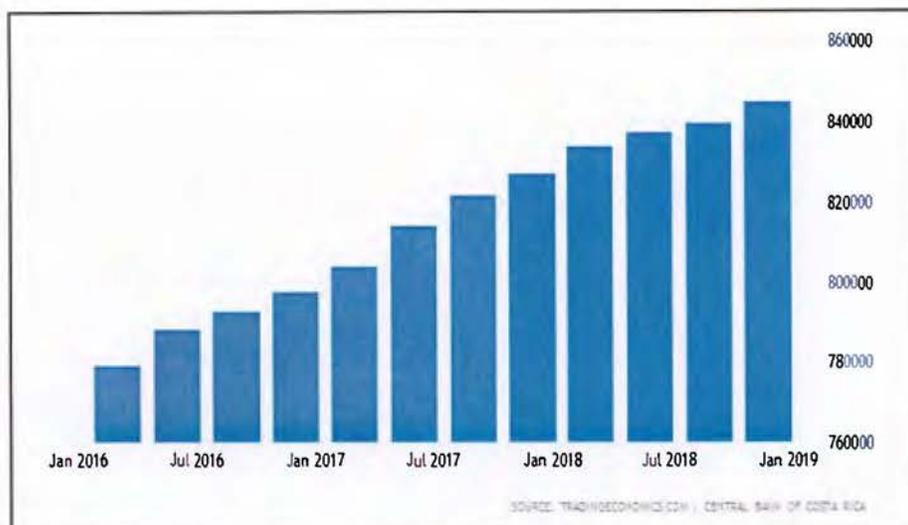
Words used to compare two things	Words used to compare three or more things

ANSWER KEY

1. _____ The graph illustrates that the **lowest** growth of GDP was during the second semester of 2015.
2. _____ During the third quarter of 2016, the GDP was **higher than** the GDP in the same
period of 2015.
3. ___F___ During the third quarter of 2017, GDP reached the **most significant** decrease.
4. ___F___ In the last quarter of 2017, GDP was **lower than** in the second quarter.
5. _____ GDP reached its **highest** point during the third quarter of 2018.
6. _____ Comparing GDP growth from 2015 to 2018, the graph shows that **the greatest** increase occurred during the third quarter of 2018.
7. ___F___ The chart reveals that 2017 has been **more productive** than 2018.

Pre-task 3

Below there is a description of Costa Rica Gross Domestic Product (GDP) in the manufacturing area. Use the words in the box to complete the description. There are three extra words.



This graph illustrates Costa Rica Gross Domestic Product (GDP) growth from the second semester of 2015 to 1. _____ of 2018. The graph shows that during 2016, the 2. _____ growth occurred in the second quarter when the growth reached around 820 000 million colones. In contrast, GDP growth 3. _____ significantly during the last quarter of 2016. During the first semester of 2017, GDP growth was more positive. In the 4. _____, GDP grew up to 860 000 colones. GDP continues growing in 5. _____. The second quarter shows an important rise to approximately 870 000 million colones. However, GDP is significantly 6. _____ the previous quarter.

- the second quarter
- 2018
- lower than
- 2016
- the third quarter
- first quarter
- decreased
- the most significant
- increased

ANSWER KEY

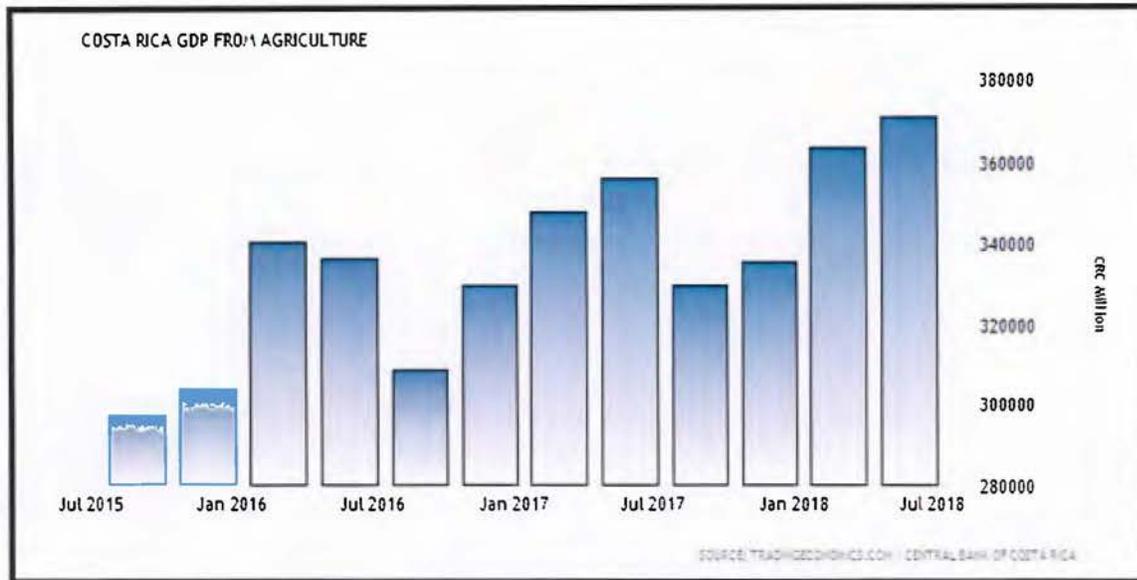
This graph illustrates Costa Rica Gross Domestic Product (GDP) growth from the second semester of 2015 to the third quarter of 2018. The graph shows that during 2016, the most significant growth occurred in the second quarter when the growth reached around 820 000 million colones. In contrast, GDP growth decreased significantly during the last quarter of 2016. During the first semester of 2017, GDP growth is more positive. In the second quarter, GDP grew up to 860 000 colones. GDP continues growing in 2018.

The second quarter shows an important rise to approximately 870 000 million colones. However, GDP is significantly lower than the previous quarter.

Main Task

Handout # 48 a

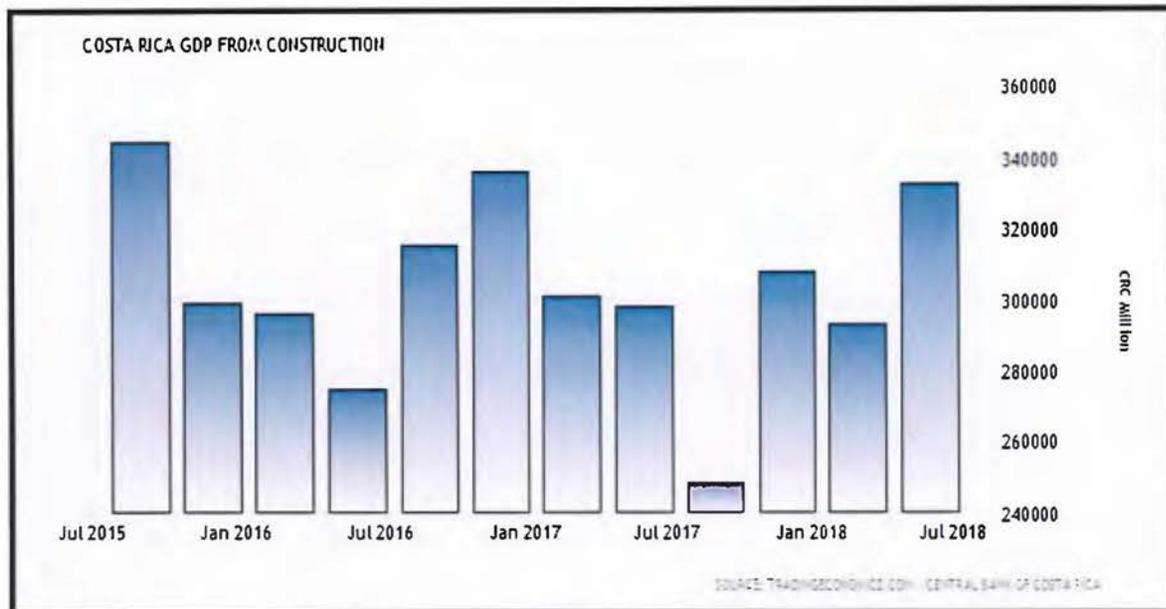
The graph below shows Costa Rica GDP from agriculture. Analyze it carefully.



Main Task

Handout # 48 b

The graph below shows Costa Rica GDP from construction. Analyze it carefully.





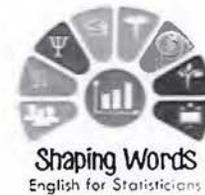
Main Task

Handout # 48 c

Instructions

- You work at the Ministry of Economy. You are in charge of investigating the GDP growth in two main sectors (construction and agriculture).
- The government needs to know which sector is more productive in order to define a strategy to increase its productivity.
- Compare the information in your graph with your partner's graph.
- Write a description of both graphs in which you compare the information.
- Practice describing the graphs with your classmate.
- Present the information to the government authorities. (teachers and classmates)

- You work at the Ministry of Economy. You are in charge of investigating the GDP growth in two main sectors (construction and agriculture).
- The government needs to know which sector is more productive in order to define a strategy to increase its productivity.
- Compare the information in your graph with your partner's graph.
- Write a description of both graphs in which you compare the information.
- Practice describing the graphs with your classmate.
- Present the information to the government authorities. (teachers and classmates)



Post Task

Handout # 49

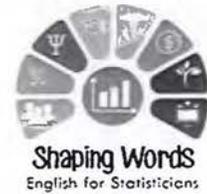
COMPARATIVES AND SUPERLATIVES

I. Analyze the chart below.

ADJECTIVE	COMPARATIVE (compares two things)	SUPERLATIVE (compares three or more things)
one syllable <i>high</i> <i>low</i>	add –er <i>higher than</i> <i>lower than</i>	Add –est <i>the highest</i> <i>the lowest</i>
One syllable Double the last consonant when words have this pattern Consonant+ vowel+ consonant	Double the last consonant bigger	Double the last consonant biggest
two syllables, ending in –y <i>healthy</i>	drop –y and add –ier <i>healthier</i>	drop –y and add –iest <i>healthiest</i>
two/three/four syllables <i>important</i> <i>significant</i>	more... <i>more important</i> <i>more significant</i>	the most... <i>the most important</i> <i>the most significant</i>

II. Complete the sentences with the comparative or superlative form of the words in parentheses.

- The _____ (low) growth in GDP occurred in 2015.
- The manufacturing sector is _____ (productive) than the construction sector.
- The construction sector experienced the _____ (high) growth in 2015.
- The GDP of the agriculture sector is _____ (big) than the GDP of the transport sector.
- In the transport sector, the _____ (significant) growth occurred in July 2018.



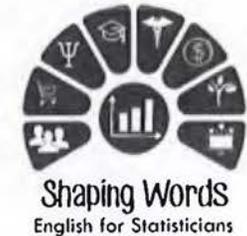
DESCRIBING GRAPHS

WORDS THAT DESCRIBE CHANGES	
Small changes	
Adjectives	Adverbs
slight	slightly
gentle	gently
gradual	gradually
steady	steadily
Big changes	
dramatic	dramatically
drastic	drastically
steep	steeply
sharp	sharply
<i>Example: A steady increase in GDP</i>	<i>Example: GDP declined slightly</i>

Describing Intervals	
From to....	From July to September
During ...	During last year
First, second, third quarter	The third quarter shows ...

Unit 3: Interpreting words

Universidad de Costa Rica
PF-0309 Practicum Design
Prof. Xinia Rodríguez
Lesson Plan # 10



Facilitator: Teresita Calderon.

Date: October 22nd, 2018

Course: Shaping Words

Goal #1: By the end of the unit, the students will be able to demonstrate comprehension of abstracts and introductions from research articles by identifying main sections and relevant ideas from the text.

General Objective: By the end of the lesson, the students will be able to successfully identify the moves of abstracts from a research paper or article by analyzing sample texts.

Specific Objectives: The students will be able to:

1. successfully brainstorm common moves within abstracts by answering several questions orally.
2. appropriately recognize the main sections of abstracts by playing the game Kahoot!
3. accurately identify the meaning of nine words by matching the concept to its corresponding definition.
4. successfully find specific information in an abstract by scanning it and completing six phrases.
5. correctly identify the information given in the different parts of an abstract by answering questions about it.
6. appropriately determine the usefulness of an article by evaluating the information presented in its abstract.
7. accurately recognize passive voice structures by underlining passive sentences in two sections of an abstract.

Obj	Procedures	Skills	Language focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.				5 min
1	<p>Link: We already finished unit 2. Today we will start working on unit 3, which will have a little bit of speaking and reading.</p> <p>Warm up:</p> <ul style="list-style-type: none"> In pairs, Ss answer the following questions: <ul style="list-style-type: none"> <i>What sections from a research paper do you usually read first? Why?</i> <i>Why are abstracts important?</i> <i>Which are the main sections of an abstract?</i> <i>What does each section include?</i> Ss share some ideas with the whole class. T walks around monitoring students and checking their ideas. UL is written on the board and practiced. <p>Materials: Material # 36 and ppt</p>	L S R	<p>Vocabulary</p> <ul style="list-style-type: none"> - Background or Introduction. - Methods - Results - Conclusions <p>UL</p> <p>I usually read... because... What about you? Abstracts are important to... I'm not sure, but I think an abstract should have... What do you think? I agree/disagree</p>	Activating background knowledge	10 min
2	<p>Link: One of the first sections we read from articles is the abstract. Today we will focus on analyzing the content of abstracts.</p> <p>Schema Activation:</p> <ul style="list-style-type: none"> In small groups, Ss play a game called Kahoot! Ss use an electronic device (a cellphone or tablet) with internet access to enter www.kahoot.it. Then, they enter the pin number showed on the screen or board, and begin to play. 	L S R	<p>Vocabulary</p> <p>Summary, procedures, variables, summary, statistical values, findings, interpret</p> <p>UL</p> <p>I'm not sure, but I think/believe it is about the results because... I think this text refers to... How about you? Do you agree?</p>	Activating background knowledge	5 min 10 min

	<ul style="list-style-type: none"> • A set of statements related to the different sections of an abstract is showed on the screen. • Each statement has four options for Ss to choose one. They have around 30 seconds to read the sentence and choose the correct answer. • The group with more right answers wins. • T walks around monitoring Ss' performance. • UL is written on the board. <p>Materials: Material # 37: Game kahoot!</p>				
3	<p>Link: Tell Ss that before reading an abstract, we are going to review vocabulary that will help them understand it better.</p> <p>Pre-task # 1: Matching concepts and definitions</p> <ul style="list-style-type: none"> • Ss work in pairs. Each pair of students is given an envelope with strips of paper. • In one set of the strips of paper, there are concepts, and in the other set, there are definitions. • Ss have to match the definitions to their corresponding concept. <p>Materials: Material # 38 Handout # 50</p>	L S R	<p>Vocabulary Ethnicity, race, income, residual, tobacco retail outlet, retail outlet density, OLS, spatial analysis method</p> <p>UL</p> <p>I think this definition goes with this concept. I don't think so. I think this word goes with this definition. I'm not sure about this one.</p>	Using cognates	10 min
4	<p>Link: Tell Ss that when we look for information, we scan a text in order to find specific information like dates, names, or quantities.</p> <p>Pre-task# 2: Read and run</p> <ul style="list-style-type: none"> • T posts three pieces of paper with an abstract. 	L S W R	<p>Vocabulary Demographic variables, demographic factor, spatial effect, census data.</p> <p>UL</p>	Scanning	15 min

	<ul style="list-style-type: none"> • Ss work in pairs. Each pair of students gets a sheet of paper with six incomplete phrases. • Ss complete the phrases with information from the abstract. • Student A tells student B the information they need to complete the phrase. Student B runs to the abstract, scans it to find the information that is missing. Then, the student returns to student A and tells him/her the answer. • After completing three phrases, students switch roles. • The group that finishes first wins. <p>Materials: Material # 39a – 39b Handout # 50</p>	<p>Can you repeat please? Go quickly!</p> <p>Say it again please. How do you spell that?</p>		
5	<p>Link: Tell Ss that now they are going to read the abstract again, but this time they are going to focus on specific information given in each section of the abstract in order to answer the questions.</p> <p>Pre-task 3: Read the abstract and answer questions.</p> <ul style="list-style-type: none"> • Ss read the abstract individually. • Ss work in pairs and answer specific questions related to the structure of each move of the abstracts. • Ss share their answers with the rest of the class. • T walks around the class monitoring Ss work. • UL is written on the board. <p>Materials: Handouts # 51 a – 51 b</p>	<p>Vocabulary Demographic factors, spatial lag model spatial regression, density, reliable results, autocorrelation, demographic variables, race, and ethnicity.</p> <p>UL What do you think about...? I think it is... There is no evidence for number... The topic/objective of the study is... The sample size is... The samples were taken using...</p>	<p>Reading for specific details</p>	20 min
	<p>Main Task: Are you interested in the article?</p>	<p>Vocabulary</p>		

6	<p>Task: In pairs, Ss imagine that they are working on a research study about Statistics applied to demographics in Costa Rica. The purpose of the study is to determine the socio-demographic factors associated with tobacco smoking. To obtain ideas related to methodology, Ss have to read research articles on a similar topic, but before reading the whole article, they read the abstract to find out if the information is useful or not.</p> <p>Planning stage: Ss discuss some questions about the methodology of the study. Based on the abstract, Ss determine whether the article is useful for their research study, and if it is worth reading it.</p> <p>Reporting stage: Then, Ss share their decisions with the whole class.</p> <p>T walks around assisting Ss and taking notes. UL is written on the board</p> <p>Materials: Handouts # 51-b and # 52</p>	R L S W	<p>Demographic factors, spatial lag model spatial regression, density, reliable results, autocorrelation, demographic variables, race, and ethnicity.</p> <p>Useful Language</p> <p>I think that the methodology that they used was / wasn't appropriate because...</p> <p>I like that they used...</p> <p>I don't thinkwas necessary.</p> <p>I would use another...because...</p> <p>I think we will / won't read the whole abstract because...</p>	Turn-taking	10 min 10 min
7	<p>Error correction: Ss receive feedback on their performance during the previous activities.</p> <p>Post-Task: What's the verb?</p> <ul style="list-style-type: none"> T writes two sentences taken from the previous abstracts on the board. ("Data on tobacco 	L S R	<p>Grammar <i>Passive voice</i></p> <ul style="list-style-type: none"> Demographic variables were based on 2000 census data. 	Using cognates	10 min

	<p>consumption were elicited from household informants"</p> <ul style="list-style-type: none"> • T encourages Ss to identify the verbs and to determine the doer of the action in each sentence. T elicits ideas from Ss. • Ss receive handout # 53. They read the methods and conclusions sections from another abstract to underline the passive voice sentences they find. Then, they compare their answers with a partner. Finally, T and Ss check the answers with the whole class. • T walks around monitoring Ss work. <p>Materials: Handout # 53</p>	W	<ul style="list-style-type: none"> • A spatial lag model was employed to incorporate the potential spatial effects explicitly. • Tobacco outlets are more densely distributed in socio-economically disadvantaged areas. <p style="text-align: center;">UL</p> <p>What did you find in the first paragraph? I found... I didn't find passive sentences in the second paragraph. What about you?</p>		15 min
	<ul style="list-style-type: none"> • T administers an end of unit assessment checklist in order to get students' feedback regarding the unit contents and the student teachers' performance. • Four students have to present the conference simulation. 				10 min 20 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Spatial lag model: model de retraso espacial
Ordinary least Square (OLS) mínimo cuadrado ordinario MCO
Residual: varianza residual
Multiple imputation: método de imputación múltiple

Warm-up: What's the structure of an abstract?

Work in pairs. Answer the questions.

- What sections from a research paper do you usually read first? Why?
- Why are abstracts important?
- Which are the main sections of an abstract?
- What information does each section include?

Work in pairs. Answer the questions.

- What sections from a research paper do you usually read first? Why?
- Why are abstracts important?
- Which are the main sections of an abstract?
- What information does each section include?

Work in pairs. Answer the questions.

- What sections from a research paper do you usually read first? Why?
- Why are abstracts important?
- Which are the main sections of an abstract?
- What information does each section include?



Schema Activation

Sentences shown in the *Kahoot* game.

Background	It contains the statement of hypothesis.
	It describes the purpose of the study.
	It mentions the objective of the study.
Methods	It provides a summary of the steps followed during the investigation.
	It describes the procedures, techniques, instruments and variables.
Results	It presents as many details as possible but does not interpret findings.
	It reports the principal findings, presents data with numbers and statistical values.
Conclusions	It summarizes the interpretation of the results.
	It explains why the findings are relevant.
	It mentions if the hypothesis was supported or rejected.



Pre-task 1

Read the definitions and match them with the correct concept.

Tobacco-selling retail outlets	Stores that sell smaller quantities of tobacco to the general public.
Spatial analysis method	It is a research paradigm that provides a unique set of techniques and methods for analyzing events—events in a very general sense—that are located in geographical space.
Ordinary least squared (OLS)	A method used for estimating parameters, particularly in regression analysis, minimizing the difference between the observed response and the value predicted by the model.
Tobacco outlet density	It refers to the number of tobacco stores in a given area.
Ethnicity	It refers to the <u>cultural</u> characteristics of someone. In this sense, it is something that is not always visible. Looking at an individual, you will not always know the language he speaks, the religion he practices, the country he comes from
Residual	The difference between an observed value of a response variable (y_i) and the value predicted by some model of interest (\hat{y}_i)

Income	Money received, especially on a regular basis, for work or through investments.
Biased	In general, deviation of results or inferences from the truth or process leading to such deviation. More specifically the extent to which the statistical method used in a study doesn't estimate the quantity thought to be estimated or doesn't test the hypothesis to be tested.
Race	It refers to the <u>physical</u> characteristics of someone. In this sense, it is something that is externally manifested. For example, the color of someone's skin.

Pre-task 1

Handout # 50

Concepts and definitions

Tobacco-selling retail outlets	Stores that sell smaller quantities of tobacco to the general public.
Spatial analysis method	It is a research paradigm that provides a unique set of techniques and methods for analyzing events—events in a very general sense—that are located in geographical space.
Ordinary least squared (OLS)	A method used for estimating parameters, particularly in regression analysis, minimizing the difference between the observed response and the value predicted by the model.
Tobacco outlet density	It refers to the number of tobacco stores in a given area.
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Income	Money received, especially on a regular basis, for work or through investments.
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Race	It refers to the <u>physical</u> characteristics of someone. In this sense, it is something that is externally manifested. For example, the color of someone's skin.



Pre-task 2

Material # 39 a

Scan the abstract and complete the missing information.

1. Place where the study was carried out _____.
2. Data for residential census areas were derived from _____.
3. Number of tobacco selling retail outlets licenses _____.
4. Demographic variables were based on _____ census data.
5. Dominant demographic factor in New Jersey _____.
6. The model employed to incorporate the potential spatial effects _____.

Pre-task 2:

Scan the text and complete the missing information.

Abstract #1

Background: Studies of relationships between tobacco sales and socio-economic/sociodemographic characteristics are well documented. However, when analyzing the data that are collected on geographic areas, the spatial effects are rarely considered, which could lead to potential ambiguous analytical results. This study addresses this concern by applying the spatial analysis method in studying how socio-economic factors and tobacco outlet density are related in New Jersey, USA.

Method: This study assessed the association between tobacco outlet density and three demographic correlates – income, race and ethnicity – at the area level of analysis for one state in the north-eastern USA. Data for 1938 residential census areas in the state of New Jersey were derived from 2004 licences for 13,984 tobacco-selling retail outlets. Demographic variables were based on 2000 census data. When applying a regression model, the residuals of an ordinary least squared (OLS) estimation were found to exhibit strong spatial autocorrelation, which indicates that the estimates from the OLS model are biased and inferences based on the estimates might be misleading. A spatial lag model was employed to incorporate the potential spatial effects explicitly.

Results: Agreeing with the OLS residual autocorrelation test, the spatial lag model results in a significant coefficient of the added spatial effect, and fits the data better than the OLS model. In addition, the residuals of the spatial regression model are no longer autocorrelated, which indicates that the analysis produces more reliable results. More importantly, the spatial regression results indicate that tobacco companies attempt to promote physical availability of tobacco products to geographic areas with disadvantageous socio-economic status. In New Jersey, the percentage of Hispanics seems to be the dominant demographic factor associated with tobacco outlet distribution, followed by median household income and percentage of African Americans.

Conclusion: This research applied a spatial analytical approach to assess the association between tobacco outlet density and sociodemographic characteristics in New Jersey at the census area level. The findings support the common wisdom in the public health research domain that tobacco outlets are more densely distributed in socio-economically disadvantaged areas. However, incorporating the spatial effects explicitly in the analysis provides less biased and more reliable results than traditional methods.



Pre-task 3: Are you interested in the article?
Handout # 51 a

Read the abstract again. Then, discuss the following questions with your partner.

I) Background:

1. What is the topic?
2. What is the purpose of the study?

II) Methods:

3. What is the research design?
4. How were the samples taken?
5. What was the sample size?

III) Results:

6. What were the results?
7. What numerical information was obtained?
8. What negative findings were obtained?

IV) Conclusions:

9. Was the hypothesis supported or rejected?
10. Why were the findings relevant?

Useful Language

I think it is...

There is no evidence for number...

The topic/objective of the study is...

The sample size is...

The samples were taken using...

The results revealed that...



Pre-task 3
Handout # 51 b

Read the abstract individually.

Abstract #1

Background: Studies of relationships between tobacco sales and socio-economic/sociodemographic characteristics are well documented. However, when analyzing the data that are collected on geographic areas, the spatial effects are rarely considered, which could lead to potential ambiguous analytical results. This study addresses this concern by applying the spatial analysis method in studying how socio-economic factors and tobacco outlet density are related in New Jersey, USA.

Method: This study assessed the association between tobacco outlet density and three demographic correlates – income, race and ethnicity – at the area level of analysis for one state in the north-eastern USA. Data for 1938 residential census areas in the state of New Jersey were derived from 2004 licences for 13,984 tobacco-selling retail outlets. Demographic variables were based on 2000 census data. When applying a regression model, the residuals of an ordinary least squared (OLS) estimation were found to exhibit strong spatial autocorrelation, which indicates that the estimates from the OLS model are biased and inferences based on the estimates might be misleading. A spatial lag model was employed to incorporate the potential spatial effects explicitly.

Results: Agreeing with the OLS residual autocorrelation test, the spatial lag model results in a significant coefficient of the added spatial effect, and fits the data better than the OLS model. In addition, the residuals of the spatial regression model are no longer autocorrelated, which indicates that the analysis produces more reliable results. More importantly, the spatial regression results indicate that tobacco companies attempt to promote physical availability of tobacco products to geographic areas with disadvantageous socio-economic status. In New Jersey, the percentage of Hispanics seems to be the dominant demographic factor associated with tobacco outlet distribution, followed by median household income and percentage of African Americans.

Conclusion: This research applied a spatial analytical approach to assess the association between tobacco outlet density and sociodemographic characteristics in New Jersey at the census area level. The findings support the common wisdom in the public health research domain that tobacco outlets are more densely distributed in socio-economically disadvantaged areas. However, incorporating the spatial effects explicitly in the analysis provides less biased and more reliable results than traditional methods.

Main Task

I. Read the situation below.

I. Imagine that you and your partner are working on a research study about Statistics applied to demographics in Costa Rica. The purpose of the study is to determine the socio-demographic factors associated with tobacco smoking. To obtain information related to methodology, you have to read several research articles on a similar topic, but before reading the whole article, you have to read the abstract to find out if the information is useful or not. Provide at least two reasons to support your choice.

II. In pairs. Read the abstract and then discuss the following questions.

1. What aspect(s) of the methodology do you find useful for your research project?
2. What specific aspect(s) of the methodology would you do differently?
3. Do you think that the spatial analysis method will be appropriate for your research project? Why? Provide at least two reasons to support your answer.

Post-Task

Passive Voice <i>To be + past participle</i>	
We use the passive voice: <ul style="list-style-type: none"> - when the person who does the action is not known or is not important. - when we focus on the receiver of the action. 	
Simple Present Passive	Simple Past Passive
We form the simple present passive using is/are/am + past participle . <i>Tobacco outlets are distributed in socio-economically disadvantaged areas.</i> <i>The same goal is recommended for hypertensive adults with diabetes.</i>	We form the simple present passive using was/were + past participle . <i>Demographic variables were based on 2000 census data.</i> <i>A spatial lag model was employed to incorporate the potential spatial effects explicitly.</i>

B) Read the Methods and Conclusions sections of an abstract and underline the passive voice sentences in the text. Then, compare with a partner.

Methods

Data from Rhode Island's 2002 Behavioral Risk Factor Surveillance System (BRFSS), a random digit dialed telephone survey, were used for this study. The statewide sample contained a total of 3,843 respondents ages 18 and older. Multiple Imputation (MI) was applied to handle missing data, and data were modelled for each of 10 Health-Related Quality of Life (HRQOL) indicators using multivariable logistic regression.

Conclusions

Using multiple measures of HRQOL can help to assess the burden of poor health in a population, identify subgroups with unmet HRQOL needs, inform the development of targeted interventions, and monitor changes in a population's HRQOL over time. These HRQOL measures are used in longitudinal and intervention studies is needed to increase our understanding of the causal relationships between demographics, health risk behaviors, and HRQOL.

Useful Language

- What did you find in the first paragraph?
- I found ...
- What about you?
- Do you agree?
- I agree/disagree with you

Unit 3: Interpreting words

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 11



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: October 29th, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to demonstrate comprehension of abstracts and introductions from research articles by identifying main sections and relevant ideas from the text.

General Objective: By the end of the lesson, the students will be able to accurately recognize the organization of introductions from research papers or articles by analyzing sample texts.

Specific Objectives: The students will be able to:

1. correctly identify mistakes from previous class activities by correcting them during a game.
2. successfully brainstorm the moves of articles and abstracts by answering specific questions.
3. appropriately identify specific information from an abstract by answering questions using the *scanning* strategy.
4. properly show understanding of the moves of an introduction by matching samples to their corresponding descriptions.
5. appropriately identify the meaning of vocabulary words by applying the strategy *guessing meaning from context*.
6. accurately demonstrate understanding of the meaning of specific words by matching them with their corresponding definitions.
7. properly determine the usefulness of articles for a research project by evaluating the information presented in their abstracts and introductions.
8. accurately recognize past simple structures by completing a fill-in-the blank exercise.
9. successfully deliver an introduction to a talk within their field using appropriate delivery strategies and organization.

Obj	Procedures	Skills	Language focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.	L R			5 min
1	<p>Link: Today we are going to start with a game. We are going to identify and correct mistakes from previous activities.</p> <p>Warm-up:</p> <ul style="list-style-type: none"> In pairs or small groups, Ss will participate in an error correction competition. They will receive a bell. Ss will be shown different sentences and questions on the board. They will read them and ring the bell if they know what the mistake is and how to fix it. If their answer is correct, they will win points. The group with the most points will be the winner. UL for interaction will be written on the board. Ts will walk around to monitor Ss and provide help if necessary. <p>Material # 40 PPT Material # 41: Bells</p>	L S R	<p>UL</p> <p>What do you think about <u>the second sentence</u>?</p> <p>I think number 1 is <u>incorrect</u>.</p> <p>I believe the correct sentence/question is...</p> <p>I agree with you.</p> <p>I disagree with you.</p>		10 min
2	<p>Link: Last class you started a new unit, you were working on reading. Let's recap some information. Previously you worked on abstracts, today we will continue working with abstracts and introductions.</p> <p>Schema Activation:</p> <ul style="list-style-type: none"> Ss will answer the following questions: <ul style="list-style-type: none"> What are the most common sections of a research article? What kind of information do you find in an abstract? Then, they will share their answers with the whole class. 	L S R	<p>Vocabulary</p> <p>Background Methods Results Conclusions</p> <p>UL</p> <p>Articles have... sections. Abstracts include... In the background section, we find...</p>	Activating background knowledge	5 min

3	<p>Pre-task #1: When we read, we need certain strategies to help us read.</p> <ul style="list-style-type: none"> • T will show the word "Scanning" on the board and ask Ss if they are familiar with it. T will elicit ideas from Ss and introduce the strategy. • Ss will receive an abstract related to the topic they worked on last class. They will answer specific questions within a time limit (40 or 20 seconds). Questions will be projected on the board. • They will share the answers with the whole class. • UL will be written on the board. <p>Material: Material # 42: Questions. Handout #54: Abstract. Handout #55</p>	L S R W	<p>UL I think the answer is... I didn't find the answer. I think the study was carried out in... They used a <u>cross sectional</u> method I agree/disagree with you.</p>	Activating background knowledge	5 min 10 min
4	<p>Link: It's time to focus on introductions. What kind of information do you find in an introduction?</p> <p>Pre-task #2:</p> <ul style="list-style-type: none"> • T will introduce the three moves commonly used in introductions. T will elicit ideas from Ss about what they mean. • In pairs, Ss will receive the description of the moves and sections from an introduction of a research paper. They will match the sections with the corresponding move. • Then, Ss will share their answers with the whole class. • Ts will walk around to monitor Ss and take notes on their performance. • UL will be written on the board. <p>Materials: Material # 43: Envelopes, moves and descriptions. Handout # 56.</p>	L S R W	<p>Vocabulary Niche Gap</p> <p>UL I think this description goes here. No, I don't think so. I think these two match. What do you think about <u>this section</u>? How about this one?</p>	Activating background knowledge Using cognates	5 min 10 min 5 min

5	<p>Link: Once we are reading, we might find words we don't know. What do you do when you find a word that you don't know in a text? (T will elicit ideas from Ss "Look at the other sentences in the text for clues, an explanation, definition, or synonym of the unfamiliar word)."</p> <p>Pre-task #3:</p> <ul style="list-style-type: none"> T will name the strategy and tell Ss "As I am reading and I find words I don't understand, I can stop reading and get frustrated. But if I use the strategy, I can continue reading". T will explain four types of context clues. In pairs, Ss will receive several sentences taken from the introduction of an article. Ss will read the sentences paying attention to the underlined word. Ss will check their answers with the whole class. Ts will walk around the room helping and monitoring Ss. <p>Materials: Material # 44 Handout # 57A-57B.</p>	L S R	<p>Vocabulary overweight tuck shop paucity cut off points Weight gain</p> <p>UL What do you think about #2? I think it means _____ because it says here... I am not sure, but I think it's a (noun).</p>	Using context clues	5 min 5 min 10 min
6	<p>Link: We are going to continue working on reading, but we are going to focus on vocabulary for a moment.</p> <p>Pre-task #4:</p> <ul style="list-style-type: none"> In small groups, Ss will receive a handout with vocabulary related to a section of an article each group will read in the main task. They will match the words with their corresponding definitions. Each group will receive a different handout. (Grouping strategy: Cards) Ts will walk around the room helping and monitoring Ss. 	L S R W	<p>Vocabulary Skinfold, thickness, Lack, Stroke, Delayed Cluster randomized controlled trial, target, Idiopathic, Paucity, prevalence</p> <p>Cross sectional studies, Centile, hyperlipidaemia, hyperinsulinaemia body mass index</p> <p>UL What did you write in the first one?</p>	Building up vocabulary	10 min

	Materials: Handouts 58A, 58B, 58C		I think it is... Do you agree? I agree/disagree with you.		
7	<p>Main Task: Is the article useful?</p> <p>Task: Ss will pretend the Ministry of Health and the Costa Rican Institute for Research and Education on Nutrition and Health (INCIENSA) have hired them to carry out a study about childhood obesity in Costa Rica from the years 2010 to 2017. They are all part of the team to develop this project. Before working on the project, they are required to look for data from previous studies. You have been divided into teams. Each team will be in charge of an abstract and introduction from an article. Ss will read the information and answer specific questions.</p> <p>Planning stage: Ss will work with people from different groups to share their point of view regarding the article based on its abstract and introduction.</p> <p>Reporting stage: Some students will share their decisions with the whole class.</p> <p>Ts will walk around monitoring and assisting Ss.</p> <p>*Ss will complete a chart to assess the main task.</p> <p>Materials: Handout # 59 Context. Handouts # 60-62 Readings.</p>	L S R W	<p>UL for interaction</p> <p>I think that the method they used was / wasn't appropriate because...</p> <p>I like that they used...</p> <p>I don't think ...was necessary.</p> <p>I believe we can use this article as part of our project because...</p> <p>UL</p> <p>I think we will / won't use the article about... because...</p>	<p>Identification of specific information</p> <p>Guessing meaning from context</p>	<p>15 min</p> <p>10 min</p> <p>5 min</p> <p>10 min</p>

8	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post task:</p> <ul style="list-style-type: none"> Ss will look at four sentences on the board. They will pay special attention to the underlined words. T will ask Ss what they have in common. (Try to elicit past forms). Ss will read some information about how to use simple past. Ss will complete sentences using verbs in parenthesis in the affirmative, negative or question past form. Then, they will compare with a partner. Ss will check their answers with the whole class. <p>Material: Handout # 63</p>	L S R W	<p>Grammar Simple Past The prevalence of tobacco consumption increased up to the age of 50 years and then declined. The prevalence of smoking had a strong association with individual's sociocultural characteristics.</p> <p>UL I'm not sure, but I think the correct answer is... What do you think about #1? I agree/disagree What did you write in number 2? I wrote... in number 2</p>		10 min 10 min
9	<p>Speaking Activity #2</p> <ul style="list-style-type: none"> A student will present her second speaking test, which is an introduction. While the student is presenting, the rest of the Ss will be members of the audience. A student will assess this partner's presentation. The student will be recorded so that she can watch her presentation at home and assess her performance. (Self-assessment assigned as homework). 	L S R		Delivery strategies	5 min

Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Note: *Ss will complete an instrument as part of the research project that the facilitators are doing.



Pre-task #1

Handout # 54

Background: To estimate the prevalence and the socioeconomic and demographic correlates of tobacco consumption in India. 315 598 individuals 15 years or older from 91 196 families were sampled in National Family Health Survey-2 (1998–99). Data on tobacco consumption were elicited from household informants.

Measures and methods: Prevalence of current smoking and current chewing of tobacco were used as outcome measures. Simple and two way cross tabulations and multivariate logistic regression analysis were the main analytical methods.

Results: Thirty per cent of the population 15 years or older—47% men and 14% of women—either smoked or chewed tobacco, which translates to almost 195 million people—154 million men and 41million women in India. However, the prevalence may be underestimated by almost 11% and 1.5% for chewing tobacco among men and women, respectively, and by 5% and 0.5% for smoking among men and women, respectively, because of use of household informants. Tobacco consumption was significantly higher in poor, less educated, scheduled castes and scheduled tribe populations. The prevalence of tobacco consumption increased up to the age of 50 years and then levelled or declined. The prevalence of smoking and chewing also varied widely between different states and had a strong association with individual’s sociocultural characteristics.

Conclusion: The findings of the study highlight that an agenda to improve health outcomes among the poor in India must include effective interventions to control tobacco use. Failure to do so would most likely result in copying the burden of diseases—both communicable and non-communicable—among India’s poor. There is a need for periodical surveys using more consistent definitions of tobacco use and eliciting information on different types of tobacco consumed. The study also suggests a need to adjust the prevalence estimates based on household informants.



Pre-task #1

Handout #55

Instructions: Scan the article to find the answers for the questions shown on the board.

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
-



Pre-task #1

Handout #55

Instructions: Scan the article to find the answers for the questions shown on the board.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



Questions on the presentation / Answer Key

1. How many families were sampled in the study? 91 196 households
2. When was the study carried out? 1998-1999
3. What methods were used in the study? Simple and two way cross tabulations and multivariate logistic regression analysis were the main analytical methods.
4. How many men and women either smoked or chewed tobacco? 154 million men and 41million women in India
5. In which kind of population was tobacco consumption considered higher? Tobacco consumption was significantly higher in poor, less educated, scheduled castes and scheduled tribe populations
6. What does the author suggest for further study? There is a need for periodical surveys using more consistent definitions of tobacco use and eliciting information on different types of tobacco consumed. The study also suggests a need to adjust the prevalence estimates based on household informants.

Pre-task #2

Material # 43

1. Establish a research territory

show that the general research area is important, interesting, problematic, or relevant
introduce and review information from previous research in the area

2. Establishing a niche

indicate a gap in the previous research or extend previous knowledge in some way

3. Occupying the niche

outline purposes or stating the nature of the present research
indicate the structure of the research paper

INTRODUCTION

The increase in life expectancy, as a result of the reduction of preventable causes of mortality, represents—almost globally— one of the great legacies of the twentieth century for public health. Among its results are a demographic transition to older populations and its connected epidemiological transition which demand transformations to both health and social institutions, that is, legal, economic, anthropological, and spiritual. (Bengtson & Ssttersten, 2016; Kinsella, 2000).

Strong evidence shows that extended longevity has also a genetic component (Brooks-Wilson, 2013; Dato et al., 2017). Candidate gene studies and genome-wide association studies (GWAS) have identified genetic variants associated with human longevity (Sebastiani et al., 2013, 2017; Yashin et al., 2010). Most of these studies have been conducted in populations of European or East-Asian ancestry, and little is known of the genetic contribution to longevity in Hispanic populations.

In Costa Rica, nonagenarian males have the highest life expectancy of the world (Rosero-Bixby, 2008), particularly in the Nicoya region, at the province of Guanacaste, where the probability of 60-year-old males becoming centenarian is seven times that of the Japanese males (Rosero-Bixby et al., 2013). This population is the product of a mixture process initiated during colonial times that produced a blend of Amerindian— mostly Mesoamerican (Hoopes and Fonseca-Zamora, 2003; Reich et al., 2012), European— mainly Spaniard, and sub-Saharan African genes (Lohse, 2005; Morera et al., 2003; Segura-Wang et al., 2010; Wang et al., 2010). Thus, the Nicoyan population offers a unique opportunity to evaluate the association of Amerindian ancestry with longevity.

Moves adapted from <https://warwick.ac.uk/fac/soc/al/globalpad/openhouse/academicenglishskills/writing>

Introduction adapted from Azoifeifa, J., Ruiz-Narváez, E. A., Leal, A., Gerlovin, H., & Rosero-Bixby, L. (2018). Amerindian ancestry and extended longevity in Nicoya, Costa Rica. *American Journal of Human Biology*, 30(1), e23055.



Pre-task #2

Handout # 56

INTRODUCTION	
<p>1. Establish a research territory</p> <p>show that the general research area is important, interesting, problematic, or relevant</p> <p>introduce and review information from previous research in the area</p>	<p>The increase in life expectancy, as a result of the reduction of preventable causes of mortality, represents—almost globally— one of the great legacies of the twentieth century for public health. Among its results are a demographic transition to older populations and its connected epidemiological transition which demand transformations to both health and social institutions, that is, legal, economic, anthropological, and spiritual. (Bengtson & Ssstersten, 2016; Kinsella, 2000).</p>
<p>2. Establishing a niche</p> <p>indicate a gap in the previous research or extend previous knowledge in some way</p>	<p>Strong evidence shows that extended longevity has also a genetic component (Brooks-Wilson, 2013; Dato et al., 2017). Candidate gene studies and genome-wide association studies (GWAS) have identified genetic variants associated with human longevity (Sebastiani et al., 2013, 2017; Yashin et al., 2010). Most of these studies have been conducted in populations of European or East-Asian ancestry, and little is known of the genetic contribution to longevity in Hispanic populations.</p>
<p>3. Occupying the niche</p> <p>outline purposes or stating the nature of the present research</p> <p>indicate the structure of the research paper</p>	<p>In Costa Rica, nonagenarian males have the highest life expectancy of the world (Rosero-Bixby, 2008), particularly in the Nicoya region, at the province of Guanacaste, where the probability of 60-year-old males becoming centenarian is seven times that of the Japanese males (Rosero-Bixby et al., 2013). This population is the product of a mixture process initiated during colonial times that produced a blend of Amerindian— mostly Mesoamerican (Hoopes and Fonseca-Zamora, 2003; Reich et al., 2012), European— mainly Spaniard, and sub-Saharan African genes (Lohse, 2005; Morera et al., 2003; Segura-Wang et al., 2010; Wang et al., 2010). Thus, the Nicoyan population offers a unique opportunity to evaluate the association of Amerindian ancestry with longevity.</p>

Moves adapted from <https://warwick.ac.uk/fac/soc/al/globalpad/openhouse/academicenglishskills/writing>

Introduction adapted from Azofeifa, J., Ruiz-Narváez, E. A., Leal, A., Gerlovin, H., & Rosero-Bixby, L. (2018). Amerindian ancestry and extended longevity in Nicoya, Costa Rica. *American Journal of Human Biology*, 30(1), e23055.

Pre-task #3

Handout # 57A



Guessing meaning from context

When you find a word that you don't know in a text, look at the other sentences for clues. An explanation, definition, or synonym of the unfamiliar word might be in a different part of the text.

A. Read the following sentences taken from different articles. Pay attention to the underlined words. Then, use the context to guess their meanings. Write your guesses in the spaces:

Contexts	Possible meaning
1. Eating too much sugar and fast food can cause <u>overweight</u> or obesity.	
2. At recess, kids go to the <u>tuck shop</u> , that is a small retailer, to buy candies and fast food.	
3. There is a paucity of studies on single factors considered to be important in obesity in children. Because the <u>paucity</u> of research projects, it is necessary to conduct more studies that focus on a single factor such as the consumption of carbonated drinks.	
4. To develop an internationally acceptable definition of child overweight and obesity, it is necessary to specify the measurement, the reference population, and the age and sex specific <u>cut off points</u> or limits.	
5. <u>Weight gain</u> is an increase in body weight. This means an increase in muscle mass, fat deposits, excess fluids such as water or other factors. It is usually a consequence of poor eating habits and little physical activity.	

Useful Language

What do you think about #2?

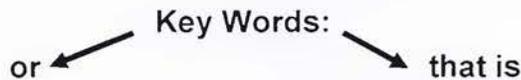
I think it means _____ because it says here...

I am not sure, but I think it's a (noun)



The most common types of context:

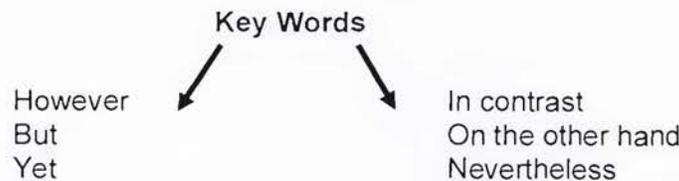
1- **RESTATEMENT**: the author redefines or restates key words to be sure the reader understands.



DASHES, PARENTHESES, COMMAS are other devices used to restate key terms

For example: *The growth rate **dropped** or **decreased** during the second quarter of the year.*

2- **CONTRAST**: by contrasting or seeing the difference between the word and its opposite, the reader can figure out an approximate definition.



Contrast clues can also take the form of an opposite.

3- **EXAMPLES**: the author does not use synonyms or opposites. He explains the meaning of a word by giving examples.

Key Words

For instance For example To illustrate Such as

4- **DEFINITION**: a definition gives the meaning of a word.

Key Words

Is / are called	Means /mean
Is / are known as	What this means is
Is / are defined as	Consist of
Is / are described as	Refer to



Pre-task #4

Handout # 58B

Article #2

A. Read the following definitions and match them with the corresponding word. Write the number in the parentheses of the correct word.

Words	Definitions
<p>Cross sectional studies</p> <p>()</p>	<p>1) Adjective. The set of divisions that produce exactly 100 equal parts in a series of continues values such as blood pressure, weight, height, etc.</p>
<p>Centile</p> <p>()</p>	<p>2) Noun. Excessive insulin in the blood.</p>
<p>Hyperlipidaemia</p> <p>()</p>	<p>3) Noun. A measurement of a person's weight in relation to their height, used to find out if they are too fat.</p>
<p>Hyperinsulinaemia</p> <p>()</p>	<p>4) A research not involving the passing of time. All information is collected at the same time and subjects are contacted only once.</p>
<p>Body mass index</p> <p>()</p>	<p>5) Noun. An abnormally high level of lipids, especially cholesterol, in the blood, predisposing to other arterial diseases.</p>

Definitions adapted from The Cambridge Dictionary of Statistics (2010) and the Cambridge Online Dictionary.



Pre-task #4

Handout # 58C

Article #3

A. Read the following definitions and match them with the corresponding word. Write the number in the parentheses of the correct word.

Words	Definitions
<p>Skinfold ()</p>	<p>1) Noun. Deficiency or absence</p>
<p>Thickness ()</p>	<p>2) Noun. A sudden change in the blood supply to a part of the brain, sometimes causing a loss of the ability to move particular parts of the body</p>
<p>Lack of ()</p>	<p>3) Noun. The layer of skin and subcutaneous fat. It is used to estimate the percentage of body fat.</p>
<p>Stroke ()</p>	<p>4) Noun. The action of having to wait longer than expected.</p>
<p>Delayed ()</p>	<p>5) Noun. The magnitude of something in a particular direction.</p>

Definitions adapted from The Cambridge Dictionary of Statistics (2010) and the Cambridge Online Dictionary.

Preventing childhood obesity by reducing consumption of carbonated drinks: cluster randomized controlled trial

BMJ 2004; 328 doi: <https://doi.org/10.1136/bmj.38077.458438.EE> (Published 20 May 2004)

Abstract

Objective To determine if a school based educational program aimed at reducing consumption of carbonated drinks can prevent excessive weight gain in children.

Design Cluster randomized controlled trial.

Setting Six primary schools in southwest England.

Participants 644 children aged 7-11 years.

Intervention Focused educational program on nutrition over one school year.

Main outcome measures Drink consumption and number of overweight and obese children.

Results Consumption of carbonated drinks over three days decreased by 0.6 glasses (average glass size 250 ml) in the intervention group but increased by 0.2 glasses in the control group (mean difference 0.7, 95% confidence interval 0.1 to 1.3). At 12 months the percentage of overweight and obese children increased in the control group by 7.5%, compared with a decrease in the intervention group of 0.2% (mean difference 7.7%, 2.2% to 13.1%).

Conclusion A targeted, school based education program produced a modest reduction in the number of carbonated drinks consumed, which was associated with a reduction in the number of overweight and obese children.

Introduction

Obesity in children has reached epidemic proportions.¹ Ultimately energy imbalance is the reason for excessive weight gain, whether the main cause is genetic, endocrinal, or idiopathic.² A contributory factor seems to be the consumption of carbonated drinks sweetened with sugar.³ These have a high glycaemic index and are energy dense. Children

who drink one regular carbonated drink a day have an average 10% more total energy intake than non-consumers.⁴ In the United Kingdom more than 70% of adolescents consume carbonated drinks on a regular basis.⁵

Although school or family based program that promote physical activity, modification of dietary intake, and reduction of sedentary behaviors may help reduce obesity in children, few have been effective.⁶ Recently the United Kingdom based active program prompting lifestyle in schools (APPLES) reported the effects of multiple interventions on obesity in children.⁷ The program included teacher training, modification of school meals, action plans within the curriculum, changes to the tuck shop, physical education, and playground activities. Despite these initiatives there was only a modest increase in consumption of healthy foods such as vegetables without any change in obesity rates. In contrast, there is a paucity of studies on single factors considered to be important in obesity in children. We aimed to determine if a school based educational program for reducing consumption of carbonated drinks could prevent excessive weight gain in children.

Taken from <https://www.bmj.com/content/328/7450/1237.short>

Article #2

Establishing a standard definition for child overweight and obesity worldwide: international survey

Tim J Cole, Mary C Bellizzi, Katherine M Flegal, William H Dietz

Abstract

Objective To develop an internationally acceptable definition of child overweight and obesity, specifying the measurement, the reference population, and the age and sex specific cut off points.

Design International survey of six large nationally representative cross-sectional growth studies.

Setting Brazil, Great Britain, Hong Kong, the Netherlands, Singapore, and the United States.

Subjects 97 876 males and 94 851 females from birth to 25 years of age.

Main outcome measure Body mass index (weight/height²).

Results For each of the surveys, centile curves were drawn that at age 18 years passed through the widely used cut off points of 25 and 30 kg/m² for adult

overweight and obesity. The resulting curves were averaged to provide age and sex specific cut off points from 2-18 years.

Conclusions The proposed cut off points, which are less arbitrary and more internationally based than current alternatives, should help to provide internationally comparable prevalence rates of overweight and obesity in children.

Introduction

The prevalence of child obesity is increasing rapidly

worldwide.¹ It is associated with several risk factors for later heart disease and other chronic diseases including hyperlipidaemia, hyperinsulinaemia, hyper-tension, and early atherosclerosis.²⁻⁴ These risk factors may operate through the association between child and adult obesity, but they may also act independently.⁵

Because of their public health importance, the trends in child obesity should be closely monitored.

Trends are, however, difficult to quantify or to compare internationally, as a wide variety of definitions of child obesity are in use, and no commonly accepted standard has yet emerged. The ideal definition, based on percentage body fat, is impracticable for epidemiological use. Although less sensitive than skinfold thicknesses,⁶ the body mass

index (weight/height²) is widely used in adult populations, and a cut off point of 30 kg/m² is recognised internationally as a definition of adult obesity.⁷

Body mass index in childhood changes substantially with age.^{8,9} At birth the median is as low as 13 kg/m², increases to 17 kg/m² at age 1, decreases to 15.5 kg/m² at age 6, then increases to 21 kg/m² at age 20. Clearly a cut off point related to age is needed to define child obesity, based on the same principle at different ages, for example, using reference centiles.¹⁰ In the United States, the 85th and 95th centiles of body mass index for age and sex based on nationally representative survey data have been recommended as cut off points to identify overweight and obesity.¹¹ For wider international use this definition raises two questions: why base it on data from the United States, and why use the 85th or 95th centile? Other countries are unlikely to base a cut off point solely on American data, and the 85th or 95th centile is intrinsically no more valid than the 90th, 91st, 97th, or 98th centile. Regardless of centile or reference population, the cut off point can still be criticised as arbitrary.

A reference population could be obtained by pooling data from several sources, if sufficiently homogeneous. A centile cut off point could in theory be identified as the point on the distribution of body mass index where the health risk of obesity starts to rise steeply.

Unfortunately such a point cannot be identified with any precision: children have less disease related to obesity than adults, and the association between child obesity and adult health risk may be mediated through adult obesity, which is associated both with child obesity and adult disease.

The adult cut off points in widest use—a body mass index of 25 kg/m² for overweight and 30 kg/m² for obesity—are related to health risk¹ but are also convenient round numbers. A workshop organised by the International Obesity Task Force proposed that these adult cut off points be linked to body mass index centiles for children to provide child cut off points.^{12,13} We describe the development of age and sex specific cut off points for body mass index for overweight and obesity in children, using dataset specific centiles linked to adult cut off points.

Article #3

Prevalence of overweight and obesity among Costa Rican elementary school children

Hilda Patricia Núñez-Rivas,¹ Rafael Monge-Rojas,¹ Hania León,² and Marlen Roselló¹

ABSTRACT

Objective. Given that excessive body weight during childhood influences the development of several chronic diseases in adulthood, this study was conducted to determine the prevalence of overweight and obesity in urban and rural Costa Rican elementary school children.

Methods. The study was carried out from July 2000 to April 2001. A total of 1 718 students ages 7–12 were selected from 34 schools in the capital city of San José and in other nearby urban and rural areas. Both younger children (ones aged 7 through 9 years) and older children (ones aged 10 through 12 years) with a body mass index (BMI) at or above the sex-specific 85th percentile were considered overweight. The younger children were classified as being obese if their triceps skinfold was greater than or equal to the 85th percentile for age and sex using the percentiles by age for

children in the United States of America as normative standards. The older children were considered obese if they had a BMI at or above the sex-specific 85th percentile and both the triceps and subscapular skinfold thickness at or above the 90th percentile.

Results. The prevalence of overweight was 34.5%. Children aged 7–9, boys, children from urban areas, and children of a higher socioeconomic status had a higher prevalence of overweight.

The prevalence of obesity was 26.2%. A higher prevalence of obesity was found among children aged 7–9, boys, children from urban areas, and children of middle socioeconomic status.

Conclusions. Given the high prevalence of obesity that we found in the Costa Rican children, primary and secondary prevention measures are needed in order to reduce the proportion of deaths due to chronic nontransmissible diseases among Costa Rican adults in the coming decades.

Key words

Child, body mass index, obesity, risk factors, Costa Rica.

The prevalence of obesity is increasing worldwide at an alarming rate in both developed and developing countries (1). The current lack of consistency and agreement among different studies in the

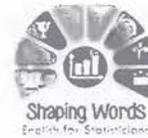
classification of overweight and obesity in children and adolescents makes it difficult to give an overview of the global prevalence of overweight and obesity in younger age groups. Nevertheless, irrespective of the classification system used, most studies of overweight and obesity during childhood and adolescence have reported that the prevalence of both has increased.

Generally, excessive body weight during childhood influences the development of coronary heart disease, hypertension and stroke, type 2 diabetes mellitus, certain types of cancer, and other diseases in adulthood (2–5). This is of particular concern in developing countries such as Costa Rica, which has a “delayed” model of epidemiologic transition, where chronic and infectious diseases coexist (6).

Life expectancy in developing countries has increased; however, the possibility of improving it will depend not only on a decrease in infant mortality, but also on a decrease in chronic nontransmissible diseases associated with premature mortality (6). A decrease in the prevalence of overweight and obesity early in life could contribute towards achieving this goal. As has been widely demonstrated (1), it is possible to reduce the proportion of deaths due to chronic disease, and furthermore,

prevent the occurrence of new cases by applying strategies directed to the modification of lifestyle risk factors.

Because of their public health importance, excessive body weight and obesity in childhood should be closely monitored. This offers the best hope for preventing progression of the disease and its associated morbidities into adulthood. This report is the first to describe the prevalence of overweight and obesity in urban and rural Costa Rican elementary school children.



Main Task

Handout # 59

A. Read the situation below.

- Imagine you were hired by the Ministry of Health and the Costa Rican Institute for Research and Education on Nutrition and Health (INCIENSA) to carry out a study about childhood obesity in Costa Rica from the years 2010 to 2017.
- You are all part of the team to develop this project. Before working on the project, you are required to look for data from previous studies. You have been divided into teams.
- Each team will be in charge of an abstract and introduction from a specific article.

B. Read the abstract and introduction assigned to you. Then, discuss the following questions.

1. What is the purpose of the study?
2. What is the research territory of the article?
3. What do you think about the research design (sample size, sampling techniques) used?
4. What specific aspect(s) of the methods would you apply in your project?
5. Do you think that the article would be appropriate for your research project? Why? Justify your answer.

Post-task

Handout # 63

A. Read the following information about Past Simple.

Past Simple Tense	
<ul style="list-style-type: none"> - We use the past simple for finished actions in the past. - We have regular (increased, smoked) and irregular verbs (had, found). - Regular verbs end in -ed. 	
<p>Examples: The prevalence of tobacco consumption increased up to the age of 50 years and then declined. The prevalence of smoking had a strong association with individual's sociocultural characteristics.</p>	
<p>We use the auxiliary DID in negative sentences and questions. When using the auxiliary, the verb goes in simple form.</p>	
Negative	Questions
<p>Contraction: didn't = did not</p> <p>The graphs did not show any decrease.</p> <p>We did not obtain the same results in our research project.</p>	<p>We use Did at the beginning of Yes/No questions and after Wh-words in WH-questions.</p> <p>Did you study regression models last semester? Yes, I did/No, I didn't</p> <p>What results did the team obtain in the questionnaires?</p>

B. Complete the following sentences with the verb in parentheses in the affirmative, negative or question past form.

1. The research team _____ (recommend) a representative survey data to identify overweight and obesity.
2. What _____ the previous results _____ (show) in the report?
3. A reference population _____ (not/ obtain) data from several sources.
4. The researchers _____ (conduct) a survey to determine the prevalence of overweight and obesity in urban and rural Costa Rican elementary school children.
5. _____ the subjects _____ (have) any negative response?
6. The research team _____ (not/ find) any factors associated with child obesity.
7. We _____ (identify) the main trends in the growth of the population.
8. Previous studies _____ (determine) more valid data regarding the reference population.

Unit 3: Interpreting words

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 12



Date: November 5th, 2018

Course: Shaping Words

Facilitator: Teresita Calderón

Assistant: Sandra Rojas O.

Goal: By the end of the unit, the students will be able to demonstrate comprehension of abstracts, introductions, and the methods section from research articles by identifying main sections and relevant ideas from the text.

General Objective: By the end of the lesson, the students will be able to accurately recognize the parts of the methods section of a research article by analyzing sample texts.

Specific Objectives: The students will be able to:

1. properly identify vocabulary related to road accidents by matching the concept to its corresponding picture in a memory game.
2. successfully recall the parts of an introduction by answering two questions with a partner.
3. properly identify the gist of an introduction by applying the skimming strategy.
4. appropriately identify the meaning of vocabulary words by applying the strategy *guessing meaning from context*.
5. properly demonstrate understanding of the parts of the methods section by retelling them in a jigsaw activity.
6. correctly identify the parts of a methods section by analyzing a sample text using a checklist.
8. properly determine the usefulness of two articles for a research project by evaluating the information presented in their abstracts, introductions, and methods.
9. successfully identify the -ed ending pronunciation rules by producing -ed endings correctly in a drilling exercise.
10. demonstrate understanding of the moves of an abstract and an introduction by answering specific questions about these sections of an article.

Obj.	Procedures	Skills	Language Focus	Strategies	Time
	Routines: Greetings, write the date and objective, check attendance.	L S			5 min
1	<p>Link: Remind Ss that we have already studied the abstract and introduction sections of different research articles. Today, we are going to work on the methods section.</p> <p>Warm-up:</p> <ul style="list-style-type: none"> Ss work in pairs. Each pair of Ss is given a set of cards – half of the cards has pictures and the other half has vocabulary words. Ss place the cards face down on the desk. Ss take turns to match the vocabulary word to the picture that illustrates it. If a St makes a match, s/he keeps the cards and continues playing. If not, the St puts the cards back down. The St with the highest number of matches wins the game. T checks understanding of the concepts. UL for interaction will be written on the board. Ts walk around to monitor Ss and provide help if necessary. <p>Materials: Material # 44 (memory game)</p>	R L S	<p>Vocabulary</p> <p>Zebra crossing Injuries Pedestrians Fasten seat belt Traffic signals Road crash Wear a helmet Burden</p> <p>UL</p> <p>It's my/your turn. I go next. I made a match. I keep the cards.</p>	Creating mental linkages (associating)	15 min

2	<p>Link: Tell Ss that last week we studied the parts of an introduction. So we are going to recall its parts and the information they contain.</p> <p>Schema Activation:</p> <ul style="list-style-type: none"> • Ask Ss if they remember what the parts of an introduction are. Have Ss discuss the following questions: <ul style="list-style-type: none"> ✓ What are the parts of an introduction? ✓ What kind of information do you find in each section? • Then, they will share their answers with the whole class. 	R L S	<p>Vocabulary Establishing territory Establishing a niche Occupying a niche</p> <p>UL</p> <p>The establishing the territory section gives information about ... Establishing the niche indicates that... Occupying the niche gives information about...</p>	Activating background knowledge	5 min
3	<p>Link: We have studied two reading strategies scanning and context clues. Today we are going to study the strategy called <i>skimming</i>.</p> <p>Pre-task 1: Skimming</p> <ul style="list-style-type: none"> • T introduces the reading strategy called <i>skimming</i>. • T asks Ss to work in pairs. They receive an article about road accidents. • They skim the text to find specific information about the main ideas of the text. The questions are projected on the screen. • Assistant teacher takes the time. • UL for interaction will be written on the board. • Ts walk around to monitor Ss and provide help if necessary. <p>Materials: Handouts # 64</p>	R W L S	<p>Vocabulary</p> <p>Road accidents High/low income countries Sustainable Development Goal</p>	Skimming	15 min

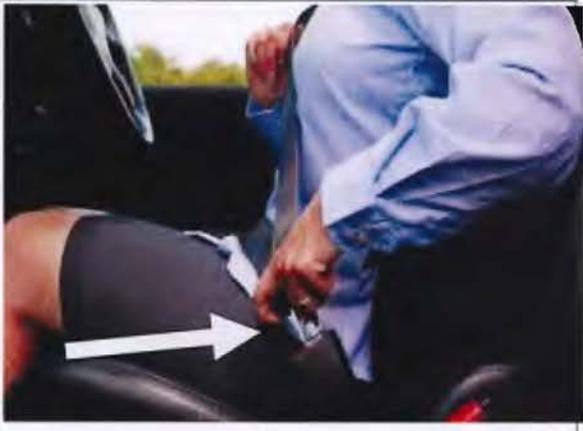
4	<p>Link: Remind Ss of the reading strategy guessing the meaning of words from context. Tell Ss that the surrounding words can help them guess an approximate meaning.</p> <p>Pre-task 2: Context Clues</p> <ul style="list-style-type: none"> • T elicits the way they can infer meaning from context. • T gives Ss a handout with the introduction of an article about road accidents. The article has five underlined words. • Ss read the introduction and try to guess the meaning of the underlined words. They write an approximate meaning on the lines provided. • Ss get in pairs and compare their answers. • T makes sure all the concepts are clear. • UL for interaction will be written on the board. • Ts walk around to monitor Ss and provide help if necessary. <p>Materials: Handout # 65</p>	R L S W	<p>Vocabulary Scope Take a deeper look Countermeasures Compelling Assess</p> <p>UL</p> <p>What do you have in # 1? I think that # 1 means <u>convincing</u>. What do you think? I'm not sure.</p>	Guessing meaning from context	15 min
5	<p>Link: After reviewing the parts of an introduction, we are going to continue with the parts of the methods section.</p> <p>Pre-task 3: What are parts of the methods section?</p> <ul style="list-style-type: none"> • Ask Ss what kind of information they usually find in the methods section. • Divide the class into two groups A and B. Ss receive a piece of paper with information about the parts of the methods section. Ss read it silently. • Have Ss get in pairs. A St from group A works with a St from group B. They have to share the 	R L S	<p>Vocabulary Design Procedure Materials Participant</p> <p>UL</p> <p>I read about the <u>procedure</u>. In participants, you find a description of <u>the people that participated in the study, for example...</u></p>	Read and look up technique.	10 min

	<p>information they read about the parts of the methods.</p> <ul style="list-style-type: none"> • T makes sure all the concepts are clear. • UL for interaction will be written on the board. • Ts walk around to monitor Ss and provide help if necessary. <p>Materials: Material # 46 – Handout # 66</p>		Can you repeat please?		
6	<p>Link: Now we are going to do an exercise for you to identify the parts of the methods section.</p> <p>Pre-task 4: Analyze the methods section</p> <ul style="list-style-type: none"> • Ss receive the methods section of an article about traffic accidents. • Ss read the excerpt silently. Then, Ss use a checklist to determine if the excerpt has all its parts. Ss take notes. • Ss work in pairs and compare their answers. • UL for interaction will be written on the board. • Ts walk around to monitor Ss and provide help if necessary. <p>Materials: Handouts # 67 - # 68</p>	R L S W	<p>Vocabulary</p> <p>Study design Study population Optional definitions Variable and data sources Data analysis</p> <p>UL</p> <p>What do you think about question # 1? I think the methodology doesn't mention <u>the participants</u>. I agree / disagree with you. The methodology doesn't provide many details about <u>how they collected data</u>.</p>	Active listening	15 min
	<p>Main Task: Is the article useful?</p> <p>Task: Ss imagine that they work at the Ministry of Public Infrastructure and Transport (MOPT) specifically at the Planning Department. They and</p>	R L S	<p>Vocabulary</p> <p>Road accidents Victim perspective Cross-sectional observational study Non-contrived setting</p>		

8	<p>other colleagues have to carry out a study about traffic accidents in our country. The purpose of the study is to determine the main causes of traffic accidents in route 27. They are part of a team to develop this project. Before working on the project, Ss are required to look for data from previous studies. They have been divided into teams. Each team is in charge of reading the abstract, the introduction, and the methodology of a different research article.</p> <p>Planning stage: Ss work with a partner from a different group to share their point of view regarding the article based on its abstract, introduction, and methods.</p> <p>Reporting stage: Some students share their decisions with the whole class.</p> <p>Ts walk around monitoring and assisting Ss.</p> <p>*Ss complete a chart to assess the main task.</p> <p>Materials: Handout # 69 Context. Handouts # 70 -71 articles.</p>		<p>Discriminant analysis Dichotomous variable</p> <p>UL</p> <p>The article I read was about ... The methods they used ... They collected data... What about the article you read? I don't think this article is useful because <u>it doesn't mention...</u> I think the article I read is useful because <u>they applied a regression analysis.</u></p>	Identify specific information	20 min
9	<p>Error correction: Ss will receive feedback on their performance during the previous activities.</p> <p>Post-task:</p> <ul style="list-style-type: none"> • T shows Ss six past tense verbs. Ss pronounce the words aloud. • T reads the words aloud. Ss pay attention to the way the T pronounces the words. • T explains the rules regarding the pronunciation of -ed endings. 	L S R W	<p>Pronunciation</p> <p>The researcher collected data through a questionnaire. The researcher assessed the results. Injured</p>		10 min 15 min

Warm-up

I. Memory game. Match the picture to its name.

<p>Zebra crossing</p>	
<p>Pedestrians</p>	
<p>Fasten seat belt</p>	

Traffic signals



Road crash



Wear a helmet



Injuries



Burden



Pre-task 1:

Handout # 64

Burden, pattern and causes of road traffic accidents in Bhutan, 2013–2014: a police record review

Chador Wangdia , Mongal Singh Gurung a , Tashi Dubaa , Ewan Wilkinsonb , Zaw Myo Tunc and Jaya Prasad Tripathyd a Department of Public Health, Ministry of Health, Thimphu, Bhutan
Received 16 March 2016 Accepted 6 May 2017

ABSTRACT Road traffic accidents (RTAs) are a major cause of death and injury globally. There was little information on the burden and causes of RTAs in Bhutan. The study estimates the burden and characteristics of RTAs and describes the victims of RTAs in Bhutan. A descriptive cross-sectional study conducted analyzing police case records. In 2013–2014, 1866 accidents resulted in 1143 injuries and 157 deaths. We identified 39% more deaths from RTAs than that submitted to WHO in 2013 as the 30-day mortality. The main causes were careless driving and drunk-driving. Drivers and passengers constituted 86% of the deaths with few pedestrian deaths. Data for in-hospital deaths or after discharge were not available. Productivity loss due to RTA is around 1% of national GDP. There is significant mortality and ***morbidity** from RTAs in Bhutan. There is no coordinated system for data collection and surveillance to monitor Sustainable Development Goal 3.6 (SDG).

Road Traffic Accidents (RTAs) are a major cause of death and injury and an increasing public health problem globally, causing more than 1.2 million deaths annually. (World Health Organization, 2015a). The magnitude of the problem has been recognized by declaration of the Decade of Action for Road Safety 2011–2020 by the UN General Assembly (United Nations Road Safety Collaboration, 2015).

There is some evidence that the numbers of RTAs are not changing, but this is more visible in high-income countries than in low and middle income countries (LMICs). The greatest ***toll** is in the LMICs, with 90% of global road traffic deaths (Hyder et al., 2012; World Health Organization, 2015a). RTAs most commonly affect the economically productive age group and is the leading cause of death among young people aged between 15 and 29 years. In economic terms, RTAs cost more than 3% of the gross national product globally and up to 5% in LMICs, which is more than the developmental aid grants received from all donor countries (World Health Organization, 2015a).

There is now a target in the Sustainable Development Goals (SDGs) to halve the number of deaths and injuries due to RTAs by 2020 compared to 2015 (World Health

Organization, 2015b). This means, it is essential to have accurate and reliable information on deaths and injuries due to RTAs to monitor this target. However, there has been no systematic attempt to study the burden and causes of RTAs in Bhutan.

Therefore, we planned a nationwide cross-sectional study in Bhutan to (i) assess the burden of RTAs in terms of injuries, deaths and estimated lost output as a result of deaths, (ii) explore the pattern and causes of RTAs and (iii) describe the demographic characteristics of people who were injured or died in RTAs during 2013–2014.

***Toll:** Number of deaths in a particular circumstance

Adapted from:

<https://www.tandfonline.com/doi/pdf/10.1080/17457300.2017.1341930?needAccess=true>

Skim the text and answer the following questions.

1. What's the study about?

2. Where are road traffic accidents more evident?

3. What's the purpose of the SDG?

4. What's the purpose of the study?

Pre-task # 2:

I. Read the introduction of the following the research article. Use context clues to guess the meaning of the underlined words.

Pedestrian fatality risk as a function of car impact speed

Introduction

Road traffic accidents are a global health problem claiming approximately 1.2 million fatalities per annum (WHO, 2004). The largest group of road user fatalities are pedestrians hit by motorized vehicles (Mohan, 2002; Odero et al., 1997; WHO, 2004), which will increase further with the motorization of countries such as China and India (Kopits & Cropper, 2005; WHO, 2004). In the western world, typically 10 to 30% of all road accident fatalities are pedestrians (IRTAD, 2008; WHO, 2004). In many other countries, these proportions are substantially higher, although the exact figures are often difficult to assess because evaluating these figures requires a detailed, long, and expensive process (IRTAD, 2008; Mohan, 2002; Odero et al., 1997; WHO, 2004). Thus, there is a compelling need for worldwide implementation of effective pedestrian injury mitigation and crash prevention countermeasures.

The concept of risk can be interpreted according to scientific context. In traffic safety literature, it is common to define the pedestrian fatality risk as the probability of death, given that the pedestrian was hit by a motorized vehicle and also injured. This is because very little data exist on crashes involving only uninjured pedestrians. We also note that pedestrian fatalities generally include only deaths occurring within 30 days as a result of a motor vehicle crash. Within certain groups of the traffic safety community, there is presently a perceived consensus that the risk of pedestrian death is a well-known function of car impact **speed**. Typically, the fatality risk has been reported at 40 to 90% at an impact speed of 50 km/h.

Preprint of article published in Accident Analysis and Prevention 41 (2009) 536–5422 (ERSO, 2008; GRSP, 2008; OECD/ECMT, 2006; WHO, 2004).

However, **taking a deeper look** into the traffic safety literature, we found that only a limited set of research articles, studying the risk of death as a function of impact speed, have been published during the past 30 years. Furthermore, most of the real-world data samples studied were either very small, substantially biased towards severe injury crashes, or more than 30 years old.

The **scope** of this study was to derive an improved function for adult pedestrian fatality risk based on real-world accident data. In addition to car impact speed, the effects of pedestrian age, height, weight, and gender were to be investigated. The resulting risk curves should offer assistance and guidance for future pedestrian safety strategies. In particular, they should be useful for benefit and effectiveness studies of proposed **countermeasures** or solutions. Child pedestrian mortality should be treated in a separate study due to the anatomical and biomechanical differences between children and adults (Tarrière, 1995). Therefore, only pedestrians aged 15 years or older were considered.

Source: <https://www.sciencedirect.com/science/article/abs/pii/S0001457509000323>

II. Write an approximate meaning of the underlined words on the space provided.

1. assess: _____

2. compelling: _____

3. speed: _____

3. taking a deeper look: _____

4. scope: _____

5. countermeasures: _____

III. Compare your answers with classmate.

Pre-task # 3

Material # 46

Student A: Parts of the methods section

The method section should utilize subheadings to divide up different subsections. These subsections typically include: Participants, Materials, Design, and Procedure.

Participants

In this part of the method section, you should describe the participants in your experiment. Include who they were, how many there were, and how they were selected. Include any unique characteristics such as sex, age, ethnicity, or religion. In this subsection, it is also important to explain why your participants took part in your research. Information on participants helps other researchers understand how your study was performed, how generalizable the result might be, and allows other researchers to replicate your results with other populations to see if they might obtain the same results.

Materials

Describe the materials, measures, equipment, or stimuli used in the experiment. This may include testing instruments, technical equipment, books, images, or other materials used in the course of research. If you used some type of psychological assessment or special equipment during the course of your experiment, it should be noted in this part of your method section. Specialized equipment, especially if it is something that is complex or created for a niche purpose should be described in detail.

Student B: Parts of the methods section

Design

Describe the type of design used in the experiment. Specify the variables as well as the levels of these variables. Clearly identify your independent variables, dependent variables, control variables, and any ***extraneous variables** that might influence your results. Explain whether your experiment uses a within-groups or between-groups design.

Procedure

The next part of your method section should detail the procedures used in your experiment. Explain what you asked the participants to do, how you collected data, and the order in which steps occurred. Keep this subsection concise yet detailed. Explain what you did and how you did it, but do not overwhelm your readers with too much information.

*Extraneous variable: any variables that you are not intentionally studying in your experiment.

Pre-task # 3

Handout # 66

The Parts of the Methods Section

The method section should utilize subheadings to divide up different subsections. These subsections typically include: Participants, Materials, Design, and Procedure.

Participants

In this part of the method section, you should describe the participants in your experiment. Include who they were, how many there were, and how they were selected. Include any unique characteristics such as sex, age, ethnicity, or religion. In this subsection, it is also important to explain why your participants took part in your research. Information on participants helps other researchers understand how your study was performed, how generalizable the result might be, and allows other researchers to replicate your results with other populations to see if they might obtain the same results.

Materials

Describe the materials, measures, equipment, or stimuli used in the experiment. This may include testing instruments, technical equipment, books, images, or other materials used in the course of research. If you used some type of psychological assessment or special equipment during the course of your experiment, it should be noted in this part of your method section. Specialized equipment, especially if it is something that is complex or created for a niche purpose should be described in detail.

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Describe the type of design used in the experiment. Specify the variables as well as the levels of these variables. Clearly identify your independent variables, dependent variables, control variables, and any *extraneous variables that might influence your results. Explain whether your experiment uses a within-groups or between-groups design.

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Pre-task # 4:

Handout # 67

Read the methodology section of the following article.

**Burden, pattern and causes of road traffic accidents in Bhutan,
2013–2014: a police record review**

Chador Wangdi, Mongal Singh Gurung, Tashi Duba, Ewan Wilkinson, Zaw Myo Tun & Jaya Prasad Tripathy

Methods

Study design

A descriptive cross-sectional study of RTAs in Bhutan.

General setting Bhutan is a non-coastal country in the heart of the Himalayas with a population of 745,153 (National Statistics Bureau, 2015). It lies in the young Himalayan Mountains with one settlement separated from other by rocky mountainous terrain. The country is administratively divided into 20 districts and 205 blocks. The larger centres of population are in Thimphu and Chukha districts with a population of 124,397 and 88,968, respectively, while the rest live in small settlements distributed across the other 18 districts. The per capita Gross Domestic Product (GDP) of Bhutan is USD 2611.74 with a poverty rate of 12.0% and a general literacy rate of 63.0% (National Statistics Bureau, 2015).

Study setting

There are 20 districts in Bhutan. In each district, the police department records every reported RTA and prepares a case sheet for each, using a semi-structured reporting format. The case sheet captures information on the socio-demographic details of those who were injured or died in an RTA, cause of the accident and other details of the event. The records from each police station are sent monthly electronically to the Crime Section, Police Head Office in Thimphu, the national capital.

Study population

Police records of all RTAs reported in Bhutan during the period 2013–2014 were collected for this study.

Operational definitions

In this study, death and injury refers to the status of the RTA victim as reported in the police records. The causes of RTAs from police records were categorized into four groups: human factors, environmental factors, mechanical factors and others.

Variables and data sources

The records of all RTAs in Bhutan during the period of 2013 and 2014 were obtained from the Crime Section, Police Head Office at the national capital of Thimphu. These records had information on variables such as: age and sex of the victims who were injured or who died due to RTA, the main factor thought to have caused the RTA (human, mechanical, environmental/road conditions), type of vehicle involved, victim's road user status (driver, passenger, pedestrian, motorcyclist, etc.). The number of registered vehicles in 2013 and 2014 was collected from the Road Safety and Transport Authority (Source: Road Safety and Transport Authority). Other aggregate data for Bhutan such as the GDP per capita, life expectancy and annual GDP growth were obtained from the National Statistical Bureau, Bhutan (National Statistics Bureau, 2015). Discount rate: discounting in economic evaluation implies that costs and benefits occurring at different points in time are valued differently. In general, individuals prefer to experience a good (e.g. health care) or consume a product now relative to doing so in the future. The strength of this preference is expressed by the discount rate. Once costs have been valued, they should be adjusted for differences in timing by discounting future costs to a present value (Van Hout, 1998)

Data analysis

Anonymized data were entered into an electronic data form in EpiData entry version 3.1 and analyzed in EpiData analysis version v2.2.2.183. Data were double entered and validated using EpiData entry software. The number and rate of RTA and RTA-related deaths and injuries were calculated per 100,000 population and per 10,000 vehicles to provide data for international comparisons. The causes and characteristics of RTAs were summarized, and age and sex distribution of those injured and died presented. Lost output was calculated using number of life years lost from the age of the victim's death against the retirement age, and then converted into economic terms using GDP per capita of the country. A discount rate of 5% and annual GDP growth of 7.7% (average of last 10 years) were used (Annual GDP Growth, 2014). The method of estimating the lost output was based on the method by Rezaei and colleagues (Rezaei, Arab, Matin, & Sari, 2014; Silcock, 2003).

Table 1. Number and rate of road traffic accidents, injuries and deaths in Bhutan, 2013–2014.

Characteristics	2013	2014
Number of RTAs	1062	804
Number of injuries	541	602
Number of deaths	82	75
Death rate/100,000 population	11.2	10.5
Injury incidence rate/100,000 population	73.8	80.8
Death rate/10,000 vehicles	12.1	10.9
Injury incidence rate/10,000 vehicles	79.6	87.6



Pre-task # 4:

I. Use the following checklist to analyze the methodology section of the article: “Burden, pattern and causes of road traffic accidents in Bhutan, 2013–2014: a police record review.”

	YES	NO	Extra information
1. Does the methods section provide a detailed description of the participants?			
2. Does it explain the reason why these participants are taking part of the study?			
3. Does it describe the materials used? If yes, what kind of materials were used?			
4. Does it identify the study design? If yes, which one is it?			
5. Does it identify dependent, independent or extraneous variables?			
6. Does the procedure explain how data was collected? Are all steps explained in detail?			

II. Work in pairs. Compare your answers with your classmate.

Useful Language

- What do you think about question # 1?
- I think the methodology doesn't mention the participants.
- I agree / disagree with you.
- The methodology doesn't provide many details about how they collected data.

Main task:

Handout # 69

I. Read the situation below.

- Imagine that you work at the Ministry of Public Infrastructure and Transport (MOPT) specifically at the Planning Department. You and other colleagues have to carry out a study about traffic accidents in our country.
- The purpose of the study is to determine the main causes of traffic accidents in route 27.
- You are part of a team to develop this project. Before working on the project, you are required to look for data from previous studies. You have been divided into teams.
- Each team will be in charge of reading the abstract, the introduction, and the methodology of a research article.

Read the article. As you read reflect on the following questions. Then, discuss them with your partner.

6. What is the purpose of the study?
7. What is the research territory of the article?
8. Is the methodology described in detail? Is it missing important information? If yes, which one?
9. What specific aspect(s) of the methods would you apply in your project? What elements would you add?
10. Do you think that the article would be appropriate for your research project? Why? Justify your answer.



Post- task

Handout # 72

Pronunciation of –ed ending of regular past verbs

I. Study the rules.

/d/	/t/	/ɪd/
Verbs ending in voiced sounds : b, g, l, m, n, r, v, w, y, and vowel sounds are pronounced as /d/	Verbs ending in voiceless sounds : sh, ch, p, k, f, x, s, are pronounced as /t/	Verbs ending in /t / or /d/ are pronounced as /ɪd/
Injured Applied	Assessed Based	Collected Estimated

II. Work with a partner. Take turns reading the words aloud. Do you hear /t/, /d/ or (ɪd)?

	/ t /	/ d /	/ ɪ d /
1. excluded			
2. reported			
3. developed			
4. investigated			
5. involved			
6. researched			
7. selected			
8. studied			
9. increased			
10. occurred			

Unit 3: Interpreting words

Universidad de Costa Rica
PF-0311 Practicum
Prof. Xinia Rodríguez
Lesson Plan # 13



Facilitator: Sandra Rojas O.
Assistant: Teresita Calderón

Date: Nov. 12th, 2018
Course: Shaping Words

Goal: By the end of the unit, the students will be able to demonstrate comprehension of abstracts, introductions and the methods section from research articles by identifying main sections and relevant ideas from the text.

General Objective: By the end of the lesson, the students will be able to apply the knowledge gained in unit three by doing several reading exercises.

Specific Objectives: The students will be able to:

1. successfully identify grammatical mistakes they have made in previous class activities by correcting them through a game.
2. correctly recognize pronunciation mistakes they have made in previous class activities by drilling pronunciation in an error correction activity.
3. successfully identify the -ed ending pronunciation rules by producing –ed endings correctly in a drilling exercise.
4. appropriately demonstrate understanding of the moves of an abstract, introduction, and the methods section of an article by answering questions about it through a game.
5. correctly show understanding of abstracts, introductions, and the methods section of an article by answering specific questions about these sections.
6. successfully deliver sections of a talk about their field by using appropriate organization and delivery strategies.

Obj	Procedures	Skills	Language focus	Strategies	Time
	<p>Routines: Greetings, write the date and objective, check attendance.</p>	L R			2 min
1	<p>Link: Today we are going to start with a game. We are going to identify and correct mistakes from previous activities.</p> <p>Warm-up: Error correction:</p> <ul style="list-style-type: none"> • In pairs or small groups, Ss will participate in an error correction game. They will receive a set of sentences. They will read them and write a C next to the correct sentences and an I next to the incorrect ones. Once they have finished, they will be given a small board to write their answers. They will receive a point for each correct answer. The group with the highest number of points will be the winner. • UL for interaction will be written on the board. • Ts will walk around to monitor Ss and provide help if necessary. <p>Materials: Material # 47: Boards/ Material #48: Set of sentences</p>	L S R	<p style="text-align: center;">UL</p> <p>What do you think about sentence #3?</p> <p style="padding-left: 40px;">I think <u>number 1</u> is <u>correct</u>.</p> <p style="padding-left: 40px;">I believe <u>sentence/question #2</u> is <u>incorrect</u>.</p> <p style="padding-left: 80px;">I agree with you.</p> <p style="padding-left: 80px;">I disagree with you.</p>		10 min

4	<p>Link: It's time to focus on the sections of the articles we have worked on. Which sections have we studied so far? (Elicit abstracts, introductions and methods). T will try to elicit the topics Ss have worked on during Unit 3.</p> <p>Challenges:</p> <ul style="list-style-type: none"> Ss will work in teams. Each team will complete four challenges regarding an article. Each challenge will be in different sections of the classroom with its corresponding handouts. (Grouping strategy: Colors) Challenge #1 is related to vocabulary. Ss will match a set of words with their possible definitions. During challenge #2, Ss will read an abstract to answer specific questions. In challenge #3, Ss will read the introduction of an article to answer several questions. Finally, during challenge #4, Ss will read the methods section of the same article to answer several questions. (T will encourage Ss to use the reading strategies we have already worked on) Then, Ss will share their answers with the whole class. The group that finishes first will be the winner. Ts will walk around to monitor Ss and take notes on their performance. UL will be posted on each challenge. <p>Materials: Handout # 73: Reading, Handouts: 74-77. Material #49: Useful language</p>	L S R W	<p>Vocabulary Skinfold, thickness, Lack, Stroke, Delayed</p> <p>UL What did you write in the <u>first one</u>? I think it is <u>A</u>. I think number <u>1</u> and the definition <u>C</u> match. Do you agree? I agree/disagree with you. What do you think about <u>#1</u>? I think the answer is <u>March 2011</u>. The correct answer for <u>#4</u> is <u>cross sectional study</u>.</p>	<p>Activating background knowledge</p> <p>Reading strategies studied in class</p>	<p>3 min.</p> <p>15 min.</p>
5	<p>Link: We are now ready to start the reading comprehension exam we have today.</p> <p>Reading comprehension test, Unit 3:</p> <ul style="list-style-type: none"> Ss will receive the test. They will have 45 minutes to complete it. 	L S R		<p>Reading strategies</p>	<p>45 min.</p>

	<ul style="list-style-type: none"> Ts will walk around the room helping and monitoring Ss. 				
6	<p>Link: We are now ready to continue with our next evaluation. Let's imagine - once again- that you are presenting in a conference.</p> <p>Final Simulation:</p> <ul style="list-style-type: none"> Ss will have about 10 minutes to practice their talk with a partner. The time assigned for each person is from 3 to 5 minutes. While a student is presenting, the rest of the Ss will be members of the audience. Ss will be recorded so that they can watch their presentation at home and assess their performance (Ts will give them a self-assessment checklist). 	L S R W		Delivery strategies	30 min.
	<p>Link: We have gotten to the end of our English for Statisticians course. It's time to evaluate unit #3.</p> <ul style="list-style-type: none"> Ss will complete the end-of-unit assessment checklist in order to get students feedback regarding the contents of the unit and the student teachers' performance as well. Then, they will also complete a self-assessment checklist regarding unit #3. 	L S R W			10 min.
	<p>If there is time, Ts will thank Ss for being part of the course.</p> <p>T will ask Ss to share in English or Spanish how they feel about the course and any feedback they would like to share.</p>	L S			5-10 min.

	<ul style="list-style-type: none"> If possible, some Ss will do pending evaluations. In case, there is not enough time, Ss will arrange a day and time with the teachers. 	L S R W			15 min
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Abbreviations: L= listening, S= speaking, R= reading, W= writing, Ss= students, T= teacher, UL= Useful language

Vocabulary already studied in class #11: Cluster randomized controlled trial, target, Idiopathic, Paucity, prevalence
Cross sectional studies, Centile, hyperlipidaemia, hyperinsulinaemia, body mass index, overweight, measure, cut off points



Warm-up

Material #48

Instructions: Read the sentences and write **C** if they are correct or **I** if they are incorrect.

1. The consumption of alcohol increased dramatically in the last year. _____
 2. The researchers don't mention why is important this study. _____
 3. Two variables is associated with the main results of the study. _____
 4. The graph shows a drastic decline in 2015. _____
 5. It's important include at least three different variables in this study. _____
-



Warm-up

Material #48

Instructions: Read the sentences and write **C** if they are correct or **I** if they are incorrect.

1. The consumption of alcohol increased dramatically in the last year. _____
2. The researchers don't mention why is important this study. _____
3. Two variables is associated with the main results of the study. _____
4. The graph shows a drastic decline in 2015. _____
5. It's important include at least three different variables in this study. _____



Challenge #1

Handout # 74

A. Read the following definitions and match them with the corresponding word. Write the number in the parentheses of the correct word.

Words
1. Skinfold ()
2. Thickness ()
3. Lack of ()
4. Stroke ()
5. Delayed ()
6. Threshold ()

Definitions
A. Noun. Deficiency or absence.
B. Noun. A sudden change in the blood supply to a part of the brain, sometimes causing a loss of the ability to move particular parts of the body.
C. Noun. The layer of skin and subcutaneous fat. It is used to estimate the percentage of body fat.
D. Noun. The action of having to wait longer than expected.
E. Noun. The magnitude or intensity that must be exceeded for a certain reaction, phenomenon, result, or condition to occur.
F. Noun. The layer of something. The measurement of how dense or fat something is.



Challenge #2

Handout # 75

A. Read the abstract of the article and answer the following questions.

1. What is the topic of the study? _____

2. Where was the study applied? _____

3. When was the study carried out? _____

4. What were the main findings? _____



Challenge #2

Handout # 75

A. Read the abstract of the article and answer the following questions.

1. What is the topic of the study? _____

2. Where was the study carried out? _____

3. When was the study carried out? _____

4. What were the main findings? _____

Prevalence of overweight and obesity among Costa Rican elementary school children

Hilda Patricia Núñez-Rivas,¹ Rafael Monge-Rojas,¹ Hania León,²
and Marlen Roselló¹

ABSTRACT

Objective. *Given that excessive body weight during childhood influences the development of several chronic diseases in adulthood, this study was conducted to determine the prevalence of overweight and obesity in urban and rural Costa Rican elementary school children.*

Methods. *The study was carried out from July 2000 to April 2001. A total of 1 718 students, ages 7–12 were selected from 34 schools in the capital city of San José and in other near urban and rural areas. Both younger children (ones aged 7 through 9 years) and older children (ones aged 10 through 12 years) with a body mass index (BMI) at or above the sex-specific 85th percentile were considered overweight. The younger children were classified as being obese if their triceps skinfold was greater than or equal to the 85th percentile for age and sex using the percentiles by age for children in the United States of America as normative standards. The older children were considered obese if they had a BMI at or above the sex-specific 85th percentile and both the triceps and subscapular skinfold thickness at or above the 90th percentile.*

Results. *The prevalence of overweight was 34.5%. Children aged 7–9, boys, children from urban areas, and children of a higher socioeconomic status had a higher prevalence of overweight. The prevalence of obesity was 26.2%. A higher prevalence of obesity was found among children aged 7–9, boys, children from urban areas, and children of middle socioeconomic status.*

Conclusions. *Given the high prevalence of obesity that we found in the Costa Rican children, primary and secondary prevention measures are needed in order to reduce the proportion of deaths due to chronic nontransmissible diseases among Costa Rican adults in the coming decades.*

Key words Child, body mass index, obesity, risk factors, Costa Rica.



Challenge #3

Handout # 76

A. Read the introduction of the article and answer the following questions.

1. What is the research territory of the article?	
2. What is the niche of the research?	
3. What is the purpose of the study?	



Challenge #3

Handout # 76

A. Read the introduction of the article and answer the following questions.

1. What is the research territory of the article?	
2. What is the niche of the research?	
3. What is the purpose of the study?	

The prevalence of obesity is increasing worldwide at an alarming rate in both developed and developing countries (1). The current lack of consistency and agreement among different studies in the classification of overweight and obesity in children and adolescents makes it difficult to give an overview of the global prevalence of overweight and obesity in younger age groups. Nevertheless, irrespective of the classification system used, most studies of overweight and obesity during childhood and adolescence have reported that the prevalence of both has increased. Generally, excessive body weight during childhood influences the development of coronary heart disease, hypertension and stroke, type 2 diabetes mellitus, certain types of cancer, and other diseases in adulthood (2–5). This is of particular concern in developing countries such as Costa Rica, which has a “delayed” model of epidemiologic transition, where chronic and infectious diseases coexist (6). Life expectancy in developing countries has increased; however, the possibility of improving it will depend not only on a decrease in infant mortality, but also on a decrease in chronic nontransmissible diseases associated with premature mortality (6). A decrease in the prevalence of overweight and obesity early in life could contribute towards achieving this goal. As has been widely demonstrated (1), it is possible to reduce the proportion of deaths due to chronic disease, and furthermore, prevent the occurrence of new cases by applying strategies directed to the modification of lifestyle risk factors. Because of their public health importance, excessive body weight and obesity in childhood should be closely monitored. This offers the best hope for preventing progression of the disease and its associated diseases into adulthood. This report is the first to describe the prevalence of overweight and obesity in urban and rural Costa Rican elementary school children.



Challenge #4

Handout # 77

A. Read the methods section of the article and answer the following questions.

1. What was the sampling size?	
2. What was the procedure of the study?	
3. What were the variables of the research?	
4. How were the data examined?	



Challenge #4
Handout # 77

A. Read the methods section of the article and answer the following questions.

1. What was the sampling size?	
2. What was the procedure of the study?	
3. What were the variables of the research?	
4. How were the data examined?	

METHODS

Sample

The sample was selected from the Greater Metropolitan Area (GMA) of Costa Rica and its bordering rural districts. The GMA itself includes the central cantons of four provinces: the province of San José (which includes the capital city of San José) plus the three nearby provinces of Alajuela, Heredia, and Cartago. The GMA and the neighboring rural areas have the country's greatest concentration of elementary school children. A total of 1 780 children ages 7–12 were selected from 34 schools; 68% of the children were from urban areas, and 32% were from rural areas. The schools were selected with probability proportional to size from a list of schools in the study area. In each school, 50 students—half of them boys and half of them girls—were selected at random. Schools were classified as either urban or rural according to the sociodemographic characterization of the geographic-population areas of Costa Rica, as has been defined by the National Department of Statistics (7).

Procedure

Permission for the study was obtained from the Ethics Committee of the Costa Rican Institute for Research and Education on Nutrition and Health. Consent to participate in the study was obtained from the head or principal of each school. Written parental consent was required for children to participate in the study.

Anthropometric measurements

Height, weight, and triceps and subscapular skinfold measurements were obtained according to the guidelines established by Lohman et al. (8). Weight was measured without shoes and heavy outside clothing. Height was measured with the student shoeless and facing away from the scale. Standing height was measured to the nearest 0.1 cm, and weight was measured to the nearest 0.1 kg. Independent identical measurements were obtained for height and weight, and the average of both readings—required to be within ± 0.5 cm or 0.5 kg, respectively—was used in the data analyses. Body mass index (BMI) was calculated as weight (kg) divided by height (m) squared. Triceps skinfold (TRSK) (posterior upper arm, halfway between the elbow and acromion) and subscapular skinfold (SSK) (1 cm below the scapula's lower tip) were measured using a Lange skinfold caliper (Cambridge Scientific Industries, Cambridge, Maryland, United States of America) to the nearest 1.0 mm. Each skinfold was measured two times on the left side of the body, with it done a third time if the difference between the first two measures exceeded 4 mm. Younger children (the students aged 7 through 9 years) and older children (the students aged 10 through 12 years) with BMI at or above the sex specific 85th percentile were considered overweight.³ In the absence of other data specifying optimum cutoff values for BMI in younger and older children, the BMI values by age for children in the United States were used, as recommended by the World Health Organization (WHO) Expert

Committee on Physical Status (9). Younger children were classified as obese if their triceps skinfold was greater than or equal to the 85th percentile for age and sex, using the percentiles by age for United States children as normative standards, as recommended by the WHO (9). This criterion was chosen because the triceps skinfold has generally been found to be the best predictor of fat in children (10, 11). An additional consideration was the need to compare our results with those from other studies. In most studies in Canada and in the United States, children are defined as obese based on the measurement of triceps skinfold (12, 13). Older children with a BMI value at or above the sex-specific 85th percentile and both triceps skinfold and subscapular skinfold thickness at or above the 90th percentile were considered obese, as has been suggested by the WHO (9). The subscapular/triceps index (STI), which measures the body fat distribution pattern, was calculated as SSK/TRSK (10). An STI value between 0.76 and 0.99 was considered indicative of high risk of central fat distribution, and a value ≥ 1 as an indicator of abdominal obesity (14).

Sociodemographic information

The survey included 12 sociodemographic items. Of the 12, the ones we used for our analysis were: age, gender, area (urban, rural), educational level (years of formal education) of parents, familial structure (nuclear, matriarchal, extended), homeownership, and having such services or household facilities as the Internet, cable TV, a hot water system, or a microwave oven. Possession of the particular services or services was used to determine an index of socioeconomic status according to the methodology described by Madrigal (15). That methodology uses weighting for each service or household amenity so as to obtain a score that has a high, positive correlation with family income. The resulting scores were categorized in order to classify the population by socioeconomic status (SES): a score < 5 , low SES; 5–15, middle SES; and > 15 , high SES.

Statistical analyses

Data were examined with SPSS 10.0 for Windows computer software (SPSS Inc., Chicago, Illinois, United States), using analyses of variance as appropriate for continuous variables and chi-square tests for categorical data.

Logistic regression models were developed concurrently to test the effects of seven independent variables on overweight and obesity. Gender and area were included as dummy variables. Age, socioeconomic index, number of family members, and parents' educational level (years) were included as continuous variables. After examining bivariate relationships between variables, multivariate backward conditional models were initially used to identify which of the correlated variables provided the best model with a particular dependent variable. Collinearity was minimized by this approach, and correlation coefficients between independent variables included in the logistic regression models did not exceed 0.3. A level of $P < 0.05$ was considered statistically significant.

Challenge #1

Useful language

What did you write in the first one?

I think it is A.

I think number 1 and the definition C match. Do you agree?

I agree/disagree with you.

Challenge #2

Useful language

What do you think about #1?

I think the answer is March 2011.

I agree/disagree with you.

The correct answer for #4 is cross sectional study.

Challenge #3

Useful language

What do you think about #3?

I agree/disagree.

What did you write in number 2?

The purpose of the study is to identify the common causes of obesity in Finland.

Challenge #4

Useful language

I'm not sure, but I think the sampling size was non-random.

What do you think about #3?

I agree/disagree.

What did you write in number 2?

The researchers used age, weight and height as the main variables.