CÁTEDRA

A practical approach to the language of research, un curso para la enseñanza del inglés con fines médicos

A practical approach to the language of research, a course of English for specific purposes

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RESUMEN

El curso *Introduction to the language of research* constituye unos de los aportes del quehacer científico pedagógico al diseño de materiales para la enseñanza del ingles con fines médicos, con aplicación tanto para la enseñanza de pregrado como de posgrado. El artículo presenta las tareas que lo conforman y algunos aspectos relacionados con su diseño. El curso contribuye a elevar la calidad en el modo de actuación de los futuros médicos y de los ya en ejercicio, lo que soluciona algunos de los problemas de la comunicación y el manejo de la terminología científica en distintos aspectos de este indicador del encargo científico de los profesionales de la salud. Asimismo, este material didáctico constituye un instrumento útil para el desarrollo de la tutoría de la actividad científica estudiantil, en tanto se devela como material de referencia para el cumplimiento de la labor docente e investigativa en escenarios nacionales y foráneos.

Palabras clave: EDUCACIÓN PROFESIONAL; EDUCACIÓN MÉDICA; MATERIALES DE ENSEÑANZA; INGLÉS CON FINES MÉDICOS.

ABSTRACT

The course “Introduction to the language of research” is a practical and useful piece in the set of teaching materials designed for the teaching of English for Medical Purposes, both in undergraduate and postgraduate levels. Its six tasks and some design-related features are herein presented. It contributes to improve the linguistic expertise of future doctors and those already in service and is meant to be an answer to some of the communication problems dealing with research language. It constitutes a reference tool for tutorial purpose sections and for doctors undergoing their training practice for teaching in universities overseas where the target language is English.

Key words: EDUCATION, PROFESSIONAL; EDUCATION, MEDICAL; TEACHING MATERIALS; MEDICAL PURPOSES, ENGLISH.

INTRODUCCIÓN

La disciplina Inglés pertenece al ciclo de formación general de los centros de Enseñanza Médica Superior. Esta comprende un ciclo de inglés general para los primeros años de las carreras y un ciclo de inglés con fines específicos para el 4to y 5to años. Las crecientes necesidades sociales en relación con el nivel de perfeccionamiento y el propio desarrollo de la ciencia, la obsolescencia de materiales precedentes y la no consecución de objetivos impulsaron a definir científicamente los presupuestos para diseñar programas para la enseñanza de dicho idioma que articularán coherentemente con la calidad del diseño teórico-metodológico y con los objetivos centrales de la formación de los futuros profesionales de la salud y la superación de los que están en ejercicio.

En este trabajo se presenta el curso *Introduction to the language of research*, sus seis tareas y algunos aspectos de su diseño. Dicho curso expresa la contribución de la enseñanza del Inglés con Fines Médicos, en específico, a la sistematización y la integración de los contenidos y a la formación científica y académica de los profesionales de la salud. Asimismo, constituye una respuesta concreta a la imperiosa necesidad de conciliar la metodología de la enseñanza comunicativa de la lengua con textos actualizados de inglés con fines específicos, a la vez que satisface la necesidad que tiene el país de elaborar sus propios materiales.

En sentido general, el curso contribuye al desarrollo de la competencia y el desempeño de los futuros galenos y médicos en ejercicio en la labor científico-investigativa en esta lengua extranjera. El mismo representa una solución a algunos de los problemas de comunicación que limitan la productividad científica de educandos y egresados, y favorece, en particular, el desarrollo de sub-habilidades para la redacción, la presentación oral y la publicación de los resultados del quehacer científico.

A propósito de las últimas, resulta imprescindible considerar el manejo de los rasgos que tipifican y caracterizan el lenguaje de la investigación, en torno a cada uno de sus componentes esenciales acorde a los requerimientos establecidos para las revistas

biomédicas. Igualmente, la habilidad de sintetizar información para el resumen y la presentación digital requieren de recursos lingüísticos que permiten expresar de forma concisa y concreta los elementos claves para abordar cada aspecto del tema, y los conocimientos básicos para satisfacer los requerimientos de estilo de la redacción científica, el manejo de habilidades para la discusión y el debate científico en idioma inglés.

DESARROLLO

El Sistema Nacional de Educación cubano está conformado por diferentes subsistemas caracterizados por la integración, la interacción, los vínculos y las relaciones que condicionan su estructura. La Educación Superior es el subsistema encargado de formar profesionales calificados para las diferentes ramas de la economía, la ciencia, la técnica y la cultura de la nación. Las Universidades de Ciencias Médicas (UCM) son parte de este subsistema. En ellas se forman los futuros profesionales de la salud, bajo los requerimientos del encargo social de este perfil profesional.

La práctica médica cubana tiene un profundo enfoque clínico, epidemiológico y social, con un modelo de medicina familiar de carácter humanista y solidario. La integralidad y la continuidad de este proyecto son garantizadas por la preparación integral y la capacitación del profesional de la salud, desde el inicio de su formación.

El aprendizaje del idioma inglés es parte de esta formación integral, ya que el peso del inglés en el ámbito científico es una realidad innegable. Las razones son obvias: la mayoría de las publicaciones científicas de alto impacto, libros y revistas, están escritas en ese idioma, lo que obliga a muchos a adaptarse a esta norma. Por otra parte está el evidente hecho de la movilidad geográfica, pues es común que muchos profesionales de la salud cubano empleen el inglés para comunicarse cuando laboran en otros países o participan en eventos científicos. Al ser este idioma la lengua franca de la ciencia y la tecnología hoy día, su conocimiento abre nuevas oportunidades de aprendizaje y desarrollo individual y colectivo general y se constituye en una valiosa herramienta de trabajo y en un medio de acceso al conocimiento universal y la cooperación entre los pueblos.

Perteneciente al ciclo de formación general de los estudiantes de las UCM, la disciplina Inglés contribuye a la formación integral de los alumnos y a la elevación de la calidad en el modo de actuación de los futuros profesionales. Las asignaturas de esta disciplina se imparten en las carreras de Medicina, Estomatología, Enfermería, Psicología y las Tecnologías de la Salud. En el caso específico de Medicina, en pregrado se comienza con un ciclo de Inglés General y se culmina con el Inglés con Fines Médicos (IFM). Este último también se imparte en posgrado.

En consonancia con la metodología cubana sobre la organización y la planificación del proceso docente-educativo, en la enseñanza del IFM se manifiesta, de manera especial, la relación entre asignaturas y disciplinas, pues cada asignatura aporta conocimientos y habilidades que las demás emplean, se sostienen mutuamente y se remiten recíprocamente. Un ejemplo de ello lo constituye el vínculo con la asignatura Metodología de la Investigación, que se imparte tanto en pregrado como en posgrado, donde los futuros médicos también aprenden que necesitan escribir y publicar, a veces en idioma inglés, los resultados de su productividad científica. Sin embargo, la realidad es que estos profesionales no disponen de los recursos lingüísticos imprescindibles, ni las habilidades necesarias, que les permiten lograr este objetivo.

Así, las necesidades sociales, cada vez más crecientes, en relación con el nivel de perfeccionamiento y el propio desarrollo de la ciencia, la obsolescencia de los materiales precedentes y, por consiguiente, el fracaso en el logro de los objetivos hicieron impostergable la necesidad de definir científicamente los presupuestos a tener en cuenta en el diseño de textos para el pregrado, los cuales que articularían coherentemente con la calidad del diseño teórico-metodológico y los objetivos centrales para la formación académica de los futuros egresados.

Por dichas razones se diseñaron materiales didácticos complementarios para estudiantes de Medicina y profesionales en ejercicio. Así, parte de este empeño corresponde a lo que devino en un curso de 40 horas de duración que materializa el vínculo interdisciplinario expresado en la contribución del IFM a la sistematización e

integración de los contenidos médicos y los propios de la metodología de la investigación científica.

El curso brinda al estudiante elementos lingüísticos claves para la investigación científica. En el mismo se abordan rasgos lingüísticos esenciales de la revisión bibliográfica, el trabajo científico y sus componentes fundamentales en cuanto a estructura y estilo de redacción, el póster y sus peculiaridades lingüísticas, así como fórmulas lingüísticas para la presentación, la discusión de trabajos en eventos científicos y el lenguaje del arbitraje durante la presentación e la interacción de los participantes.

El mismo surge debido a la necesidad sentida y objetiva, tanto de alumnos como de profesores, de contar con materiales didácticos como medios fundamentales en el proceso enseñanza-aprendizaje del IFM. El análisis de las necesidades de aprendizaje se realizó a partir de la identificación y el estudio de las necesidades objetivas, así como de las subjetivas o sentidas, a esto se añadió el análisis de la situación real de la literatura docente y los recursos para su desarrollo, lo que condujo a la identificación de fortalezas y debilidades, en tanto tiene en cuenta el sistema de habilidades y el conocimiento lingüístico adquirido por el educando que llega al inicio del ciclo del IFM, a través de los diferentes programas de inglés general recibidos. Todo lo anterior devino en la identificación de las carencias y la fundamentación del problema conceptual y, por consiguiente, la conformación del sistema de habilidades necesarias para el diseño y la implementación del curso.

El curso presenta e introduce elementos teóricos y actividades prácticas dentro del campo del lenguaje de la investigación científica y la escritura académica y se ha aplicado con resultados satisfactorios en cursos como: *English for congresses, Academic writing,* Diplomado para médicos y Curso intensivo para el cumplimiento de la labor docente-investigativa en países de habla inglesa, que forman parte del proyecto de desarrollo de la enseñanza posgraduada del Departamento de Inglés de la Universidad de Ciencias Médicas de Camagüey.

El presente material se insertó, además, como una unidad en los contenidos del primer texto de la serie *English Through Medicine* I, para el cuarto año de la carrera de Medicina, concebido con proyección hacia el posgrado, a un nivel intermedio que supone una formación básica general del idioma inglés adquirida en los niveles precedentes. Aunque se sugiere impartirla en todas sus partes, esta unidad es de referencia y como tal puede utilizarse en cualquier momento del curso, pues es un instrumento para el desarrollo de la tutoría de la actividad científica estudiantil. De ahí la flexibilidad en términos metodológicos para su modificación y uso según las necesidades.

El curso está escrito íntegramente en inglés, manteniendo la tradición de los textos del IFM de los anteriores Institutos Superiores de Ciencias Médicas. Se compone de un material para el estudiante y las orientaciones metodológicas correspondientes para el profesor. Estas últimas contienen las respuestas de las tareas y los fundamentos teórico-metodológicos para el manejo e implementación. El mismo cierra con un glosario de términos inglés-inglés del lenguaje de la investigación científica que define y explica vocablos claves que aparecen explícita o implícitamente en el mismo, y puede emplearse en clases o en actividades fuera del horario docente para reforzar el trabajo independiente o garantizar su uso como material de referencia.

El diseño se encausó con un enfoque de tipo integral u holístico, tomando como fundamento la concepción estudiante-céntrico, que ubica al estudiante en el centro del proceso y sobre quien gira todo el ejercicio de la praxis pedagógica. El enfoque utilizado se sustenta en la pedagogía de aprendizaje por tareas comunicativas en sus dos dimensiones: la pedagógica, en tanto potencia los procesos de interacción y negociación lingüística, y la psicolingüística, por su potencial para estimular los procesos internos de adquisición de una lengua extranjera vinculadas a la búsqueda y la adquisición de los conocimientos y al desarrollo de habilidades.

En sentido general, se contribuye a la preparación y el desarrollo de los futuros médicos, así como de los médicos en ejercicio, en las cuatro habilidades de la lengua, lo que representa una solución a los problemas de la comunicación científica

internacional, el cumplimiento de misiones y colaboraciones internacionalistas en países donde el idioma inglés sea el medio de comunicación.

El diseño didáctico permite aprovechar la preparación y el bagaje de los estudiantes respecto al tema, fundamentalmente en el cuarto nivel de enseñanza donde se puede explotar mejor el caudal de conocimientos y experiencias de los profesionales en su quehacer científico.

El curso se estructura en seis tareas docentes que fluctúan desde el tratamiento del lenguaje más general de la actividad científica hasta las particularidades específicas de la redacción científica. Permite la inclusión de materiales auténticos y el necesario equilibrio entre los niveles de dificultad y complejidad en las actividades que se realizan. Se ajusta a la estructura IMRD (Introducción, Métodos, Resultados y Discusión), en correspondencia con las normas del grupo Vancouver y proporciona una práctica extensiva en el uso de los recursos lingüísticos necesarios para su abordaje.

Asimismo, estudia aspectos esenciales de la revisión bibliográfica a partir de la presentación de variados textos de lectura en los que se orienta al alumno hacia la búsqueda y el reconocimiento de los recursos lingüísticos necesarios para la revisión científica, entre los que se destacan las estrategias de reconocimiento de términos de referencia, palabras de enlace, partes del habla, etc. De manera especial, se pone en práctica el trabajo para desarrollar las habilidades de resumir e interpretar y la predicción analítica. Las tareas están orientadas a desarrollar las habilidades orales en la presentación y la discusión de trabajos científicos, a través de la anatomía de la presentación.

El fundamento metodológico utilizado permitirle al profesor contar con un margen de acción que le facilite la activación de una serie de procesos que tienen un elevado grado de imprevisibilidad y que pudieran conducir a identificar el *cuándo* y el *porqué* de los contenidos lingüísticos, elementos que resultan interdependientes y, que en este modelo, vienen exigidos por la tarea antes, durante y después de su desarrollo.

Las tareas se desarrollan en una secuencia que incluye momentos esenciales, que pueden o no seguir el orden que a continuación se plantea:

- Preparación para la tarea: Introducción al tópico y tarea.
- Ciclo de desarrollo de la tarea: Planeación de la tarea, ejecución y reporte de los resultados de la misma.
- Análisis lingüístico: Sesión de *feedback* y práctica de ejercitación.

Las seis tareas del curso se presentan a continuación:

Task 1

The following words are all connected to the term **research**. Study them and in pairs insert them into one of the categories presented in the chart below. You may add other words to each category.

introduction	bibliographic review
round table	abstract
panel discussion	discussion
material and methods	qualitative research
results	chairperson
presenter	oral presentations
poster	board member
case study	quantitative research

Research types & approaches	**Types of presentations**	**Roles of the participants**	**Paper structure**

Task 2

a) The notes below concisely summarize **paper organization criteria as required for manuscripts submitted to biomedical journals**. How do they match with the major components of *paper structure* in the chart above? What questions do they basically answer in a research?

1. Findings usually with figures and tables.
2. Comments on main implications of every finding, comparing, concluding and recommending.
3. Purpose and rationale for the study or observation.
4. Material and patients and then the procedure.

b) These jigsaw bits were taken from the article ***Effectiveness of paramedic practitioners in attending 999 calls from elderly people in the community: cluster randomised controlled trial*** but they are in the wrong sequence. Work in groups and arrange them in the correct order. That is, *Introduction, Materials & Method, Results & Discussion*. Then be ready to explain the reasons for your answers.

A

This randomised controlled trial evaluated the impact on processes and outcomes of paramedics with extended skills managing patients with acute minor conditions. The service conveyed considerable benefits for patients and the NHS in terms of reduced overall attendances at an emergency department and hospital, shorter episode times, and higher levels of satisfaction among patients. The new service also seems to be safe in that we identified no differences in mortality or health outcomes after 28 days. More than a quarter (29.6%, n=459) of patients in the intervention group did not receive the paramedic practitioner service. These patients therefore received the "normal service" but were still included in the "intervention" group as the results were analysed on a pragmatic intention to treat basis, reflecting the outcomes that could be expected were the intervention to be introduced more widely, and standard for the reporting of the results of health services research. This had the effect of considerably weakening the impact of the intervention.

B

The UK Department of Health's strategy has been to encourage the increased use of non-medical staff to carry out assessments and treatments traditionally carried out by doctors. The introduction of new models of care, including further assessment, triage, and treatment skills for paramedics, has been recommended to help manage ever increasing demands for health care. Current evidence concerning safety, effectiveness, and costs to support these changes in practice, however, is lacking.

Seven experienced paramedics were selected through open competition and completed the training course to enable them to provide community based clinical assessment for patients aged over 60 who contacted the emergency ambulance service with minor acute conditions.

We conducted a cluster randomised controlled trial to evaluate the effectiveness and safety of this new service.

C

Patients were recruited from 1 September 2003 to 26 September 2004. Patients aged 60 and above were eligible for inclusion when the call to the ambulance service originated from a Sheffield postcode between 8 am and 8 pm, with a presenting complaint that fell within the scope of practice of the paramedic practitioners. We used cluster randomisation to reduce the risk of contamination (practice in the control group being influenced by the presence of the paramedic practitioner in the community) and to allow service level, rather than individual patient level, evaluation of the intervention. Weeks were randomised before the start of the study (to allow for rostering of the paramedic practitioners) to the paramedic practitioner service being active (intervention) or inactive (control), when the standard 999 service was available.

D

During the trial, the paramedic practitioners identified 96% (3996/4175) of all eligible calls at the time of the incident (figure). There were no significant differences in terms of sex and presenting complaint between those identified by the paramedic practitioner and those identified retrospectively by the research team. Those identified by the paramedic practitioner, however, were a little older than those who were not identified.

Of the 2087 patients identified during the intervention weeks and 1909 during the control weeks, 978 patients did not consent to participate, resulting in the inclusion of 3018 patients into the trial. The figure shows details of why patients did not take part. There was a small difference in recruitment rates between intervention (74%) and control (77%) weeks, but no significant differences between the baseline demographics of those who were recruited and those who were not. (Adapted from BMJ 2007; 335:919)

- **Introductions** are known to be troublesome, and nearly all academic writers admit to having more difficulty with getting started than they have with its continuation. Do you agree with that assertion? What does an introduction do? Discuss your answers with a partner. Then read carefully and proceed as suggested below:

Introductions are further divided into three main stages:

Orientation towards the paper: to indicate the appropriate context in which to understand the content of the paper. There are many ways in which the writer can choose to provide a context or point of departure for the paper, but these two general categories are worth noting:

General background information.

Usually consists of facts of various types or basic known information about an issue or a concept to be discussed. There is often a statement highlighting the **importance of the subject area** under discussion. Sometimes definitions and explanations of key terms or concepts are included. e.g.

- There has been much interest recently in the concept of…and its relevance for…
- …has been the focus of much attention in the literature for…

Existing literature.

In the second the writer refers to **existing scholarship in the area** under discussion, research findings, scientists and theorists opinions, etc. In this part of the paper the authors have to make clear that they are familiar with all relevant scholarship. Here the focus may narrow to citations of specific studies directly related to the present topic. e.g.

- A number of recent studies have provided evidence that…
- There is now considerable body of research which suggests…

Justification of the paper: to persuade the reader that what you have to say is worth saying. That might be called "the marketing function of a paper". You need to persuade your reader that what you have to say is worth saying; in other words, you have to explain the role of your work, sometimes by pointing out faults or gaps in previous works, without rejecting it altogether. Two typical strategies are to indicate a gap in the covering of previous scholarship or to point to a question or problem which remains unanswered or still has to be solved. e.g.

- The limitation of all this interpretation is that…
- But the question remains whether…
- …yet several questions remain unanswered: (1) What…? (2) What? and more importantly,…?

Focus on the paper: (typically the last part of an introduction) to let the reader know what to expect. Here **aims and purposes** of the paper are defined.

- The object of this paper is to look critically at…
- The aim of this paper is to demonstrate that…
- The purpose of this article is to …

Sometimes this stage includes statements which indicate the limits of the investigation and /or outline the way the paper is organized. e.g.

- It is not the purpose of this study to…, but rather to…
- Since…is beyond the scope of this study.

Statements outlining the way the paper is organized and the methodology or approach used are sometimes combined with aims. e.g.

- To illustrate this, the authors of the present paper shall look at…

Consequently, in this paper, findings will be reviewed and synthesize in order to…

c) These two excerpts belong to the **introduction** section of major research summaries**.** Work in pairs and decide which of the features in the panel are present in each of them.

A

The main problem with preterm labour is our lack of progress in the successful management of this condition. We need to reassess our approach to this problem because preterm labour is not a disease, but an event, which may result from multiple independent pathways. This problem has also been affected significantly by medical advances such as infertility treatments and changes in neonatal survival at the limit of viability. The specific challenges that we face in managing preterm labour include: problems with definition; aetiology, including genetic and infection components; diagnostic problems, such as true versus false labour and role of cervical length and fetal fibronectin; and specific interventions according to the antepartum, intrapartum and postpartum challenges. In order to address the main issue, and make future progress in the management of preterm labour, we should consider the implementation of a 'Postpartum Preterm Labour Diagnostic Workup Protocol'. Taken from Problems and Challenges in the Management of Preterm Labour.McNamara HM BrJ Obstet Gynaecol. 2003; 110 (Suppl 20):79-85

B

Stroke is the second leading cause of death in the world and the leading cause of serious, long term disability in adults; about half of those who survive are dependent on others for assistance with personal activities of daily living six months after the stroke.

Occupational therapy is an essential element in the rehabilitation of patients after stroke. It entails "use of purposeful activity or interventions designed to achieve functional outcomes which promote health, prevent injury or disability, and which develop, improve, sustain or restore the highest possible level of independence."

A systematic review of therapy based rehabilitation services delivered to stroke patients living at home within one year of stroke onset found that those who received rehabilitation based on therapy were more independent in personal activities of daily living and more likely to maintain that ability during the study period. This review, however, covered a heterogeneous group of interventions (physiotherapy, occupational

therapy, or multidisciplinary staff working with patients primarily to improve task orientated behaviour) and concluded that the "different groups of interventions might differ in their effects." Adapted from BMJ 2007; 335:922 (3 November), doi:10.1136/bmj.39343.466863.55 (published 27 September 2007).

- The next section of the IMRAD structure is **methods.** It usually describes the selection of the observational or experimental subjects (patients or laboratory animals), identifies variables and procedures and evaluates their limitations. Reports present information on all major study elements such as: study population, interventions, outcome and the rationale for statistical analysis.

d) The following paragraph describes the study design and the participants of a research report section. Work in pairs and use the words or phrases to complete the text below. Each missing word is signaled by a consecutive number.

enrolled	approved	carried out	study protocol	medication
received	exclusion	trial	informed	consent

This prospective, double blind, placebo-controlled, multi center study was (1) _____ between August, 1997 and June, 1998, in four centers in the USA infants were recruited from August, 1997until Dec 12, 1997, and all infants (2) _____ their second dose of vaccine by Feb 12, 1998, before the rotavirus season (as assessed by surveillance in each community) The (3) _____ and informed consent were (4) _____by the institutional review board at each site. A parent guardian for each child gave (5) _____ before the child was (6) _____ in the study. Reasons for (7) _____ were an immunosuppressed or pregnant individual in the same household and births at less than 36 weeks of gestation, participation in any other clinical (8) _____ or no telephone in the household. Vaccination was delayed if the infant had a fever (temperature ≥ 38.1ºC), had had gastrointestinal signs within the previous 3 days, or was receiving (9) _____ that commonly causes gastrointestinal signs.

- The **results** section, usually with tables and figures, will largely depend on the nature of the study, and the results to be highlighted. Each main finding should be in a separate paragraph with a brief objective evaluation or comment (usually statistical significance; sometimes comparison with another result, or additional explanatory information). Typical patterns are chronological or by variable.

e) The following table presents the **results** of a preliminary study. Analyze the information it provides and work with a partner to complete the statements below.

Table 1. Cases of AIDS in Aurora

	men	**women**
1995-2000	316 (96%)	14 (4%)
2000-2005	311 (73%)	114 (27%)

1. The data can be simply stated:

Between 1995-2000, 316 men and 14 women had AIDS.
Between 1995-2000, 316 men had AIDS _____ with 14 women.
316 men and 14 women had AIDS, accounting _____96% and 4%_____

2. Or attention can be drawn to the similar numbers for men (316 and 311)

The number of men with AIDS was similar (or almost the same) in 1995-2000 and 2000-2005.
The number of men with AIDS in 1995-2000 was almost the same _____ _____ 2000-2005.
We found _____ many men with AIDS _____ 2000-2005 _____ _____ 1995-2000.

3. **Or attention can be drawn to different numbers for women (14 and 114)**

The number of AIDS cases in women _____ from 14 in 1995 _____ 114 in 2000-2005.
The number of women with AIDS increased _____ from 14 in 1995- 2000 to 2000-2005.

4. **Attention can also be drawn to the comparison of figures for both men and women**

In 1995-2000, 316 men had AIDS; _____ only 14 women were affected.
The number of men _____ AIDS was far _____ than the number of women.

- A typical discussion section, on the other hand, contains most of the following information, but the sequence varies:

1. Stating the main research outcome. (Related to the aim of the study at the end of the introduction). The most significant finding usually comes first.
2. Findings are compared with findings of other studies (sometimes contrast, but more often indicating that they are in accordance).
3. Interpreting and/or explaining the most significant findings and making appropriate generalizations from the results of the investigation.
4. Stating limitations of the study, perhaps raising questions for further studies.
5. Pointing the way forward: making recommendations for application or further research.

f) Now, work with a partner and using the information for the IMRAD structure presented so far, the typical sequence provided above and the data in e) try writing a brief **discussion** text stating the main implications of this study. You may start:

Although the study was small, the results suggest that AIDS…

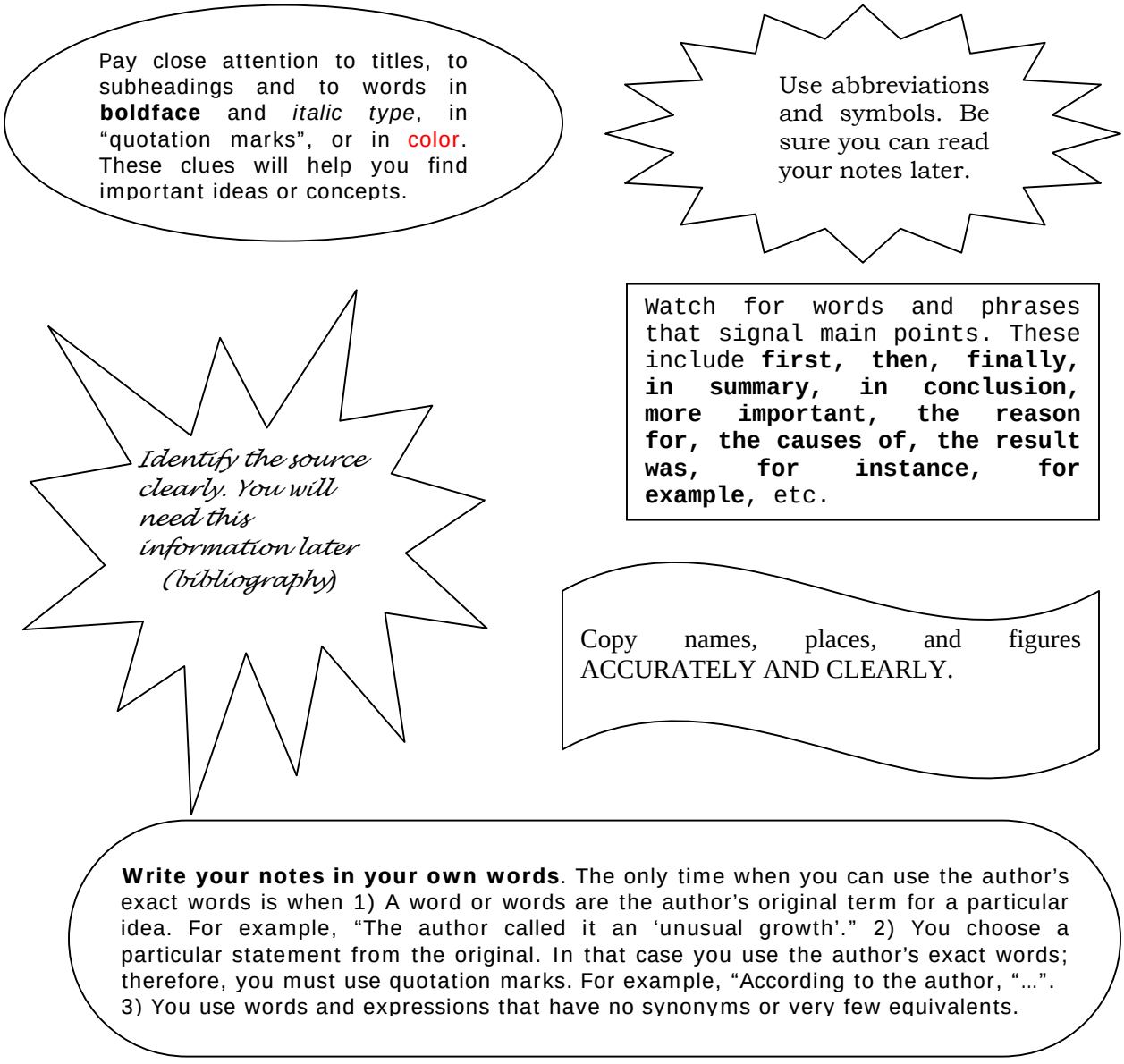
- This chart will help you recognize and approach the IMRAD structure in terms of typical linguistic features.

Introduction	Typical sequence of tenses (1) establishing the importance of the field: **Present or present perfect**, (2) summarizing previous research: **past**, (3) indicating a problem or gap in knowledge: **present perfect**, (4) introducing the present study: **present or past**
Methods	Verbs in the procedure are predominantly **passive**, presumably because the focus is on the action not the subject
Results	Predominant use of **be** and **have** in short and simple sentences. Focus not on the verb but on what was found. The **past tense** is used to report findings. e.g. *Ibuprofen was the most widely prescribed medication*. When referring to tables and figures the **present tense** is used. e.g. *table II shows*/ gives…Though the **past tense** is frequent with a *bracket reference. e.g. Ibuprofen* was the most frequently prescribed medication (table II)
Discussion	Typical linguistic features are contrastive signals (**although, however**, etc); expressions of cause and effect (*due to, result from*, etc.); tentative language (**would**); and expressions of probability rather than certainty. Recommendations are made using **should, ought to, must**. Here the present tense is dominant.

Task 3

- Now, let's turn to **bibliographic reviews** as a process of critical evaluation of retrospective and current views of a given topic. Taking notes is a major step of bibliographic reviews. Before you take notes, skim the selection that is, run your eyes over the text, reading a few sentences here and there and recognizing certain words and expressions as clues to the functions and ideas of what follows. It is not

necessary to read the text in detail. The strategies below can be useful not only for note-taking but also for organizing your material and writing your first draft.



- The activities suggested below all look at the way language works when you take notes, organize your material and start writing your first drafts. This text will help us use some of the strategies and techniques required in the process of bibliographic review. Read the text and proceed as suggested.

The exercise stress test

The exercise stress test, which is described in detail in Chapter 10, serves to alert the physician to the possible presence of heart function abnormalities that may be triggered or worsened by exertion. During the test, a person exercises to 85 percent of his or her maximum ability (or until symptoms of heart disease or other problems result, at which point the test is immediately stopped). Meanwhile, blood pressure, heart rhythm, and, in some cases, oxygen consumption are continuously recorded. It should be noted, however, that exercise stress tests have a false positive rate (a result indicating disease when none is present) of anywhere from 15 to 40 percent; this rate is even higher in young women with no symptoms of heart disease. The results may also be less reliable in trained athletes. The stress test is especially important for determining the safe level of exercise during heart attack recovery and may be performed at intervals during cardiac rehabilitation to monitor progress. Anyone over 40 who has symptoms or a family history of coronary heart disease, or more than two risk factors for it - including being male (See Chapter 3.) needs to be tested before starting a program of activity. Adapted from The Heart Book: Yale University School of Medicine 1992

a) The following can be abbreviated when you take down notes. Work with a partner and write the corresponding abbreviations and symbols.

Chapter: _____
Percent: _____
Blood pressure: _____
Female: _____
Family history: _____
Coronary heart disease: _____
Male: _____

b) If you need more detailed information on exercise stress test and risks for CHD. Where can you find it in this same book?

c) To guess the meaning of a new word from the context, you might find it helpful to know its "part of speech". That is, is the word a noun, a verb, an adjective?) The words *exercise*, *test* and *result* all belong in the text and have been used with more than one function. Go back over the reading passage and determine their functions.

d) This chart contains some other words commonly used in medical writings. They also belong in the text and may as well have different grammatical functions. Work with a partner and complete the chart accordingly. Notice that in the majority of cases you will need to make changes (add suffixes, create new words, etc)

Nouns	Verbs	Noun modifiers	Adverbs
ability			-
	describe		-
detail			-
presence			-
	trigger	-	-
	record	-	-
abnormality	-		
	-	higher	
-	-	safe	
recovery			-
progress			

e) Distinguishing **facts** (F) - true according to what is stated or implied- from **opinion** (O) - statements that are views and beliefs derived from what is stated- contribute to the objectivity of your writing. Read the text again and write **F** or **O** depending on the nature of the statements.

1. ____ If the results of the exercise stress test are abnormal, further testing may be recommended.
2. ____ Some signs are constantly recorded during the test performance.
3. ____ Results indicating disease may appear during the test.

4. ____ The decision to perform a stress test should be made in consultation with a team of doctors.
5. ____ All athletes must take the stress test.
6. ____ All heart function abnormalities can be detected during the stress test.

f) Now you have a complete understanding of the text so you are in a better position to write a summary on the information you consider to be significant and worth including in it. Discuss your choices with a partner.

Remember that a successful summary should be:

- Neutral: you should not express your own opinion of the text
- Balanced: it should contain roughly equal coverage of all sections of the text
- Condensed: it should be shorter and less detailed than the original
- Clear: use simple language
- In your own words

You may start with a sentence containing two elements: the **source** and the **main idea.** Here are some sample first sentences:

I*n "_____" article… _____ (main idea)*
According to _____ in his article "_____" _____ (main idea)
_____ in his book "_____" states that _____ (main idea)
claims that
argues that
maintains that

- Academic writing makes use of linguistic devices that help you present arguments, assertions, cause-effect relationship, reasons, conclusions, etc. These are some of the most common signals. Notice that they may overlap**.**

Giving reasons (cause & effect): because, because of, so therefore, for this reason, as since, due to, owing to, given the (fact that), as is shown/ implied/ suggested.

Concluding: therefore, then, consequently, as a result, this leads/points to/ suggests/indicates/implies/proves that, from this we can conclude, finally.

Expressing counterarguments: It is true that…but, certainly…however, opponents/critics of this position…, it may be objected that…, a possible objection is…, another argument against X is…

Refusing: but, however, on the other hand, nevertheless.

Linking ideas: additionally/in addition to, also, furthermore, moreover, first of all.

Defining: A definition or explanation usually follows the expressions, *that is* or *in other words.*

Moderating opinions; that is stating opinions with an adverb of frequency. However there is a lot more than *never, always, all, or none*

Instead of *never*, use *rarely, almost never, hardly ever*, or *usually…not.*

Instead of *always* use frequently, usually, almost always, or often

Instead of *all*, use *almost all, almost every, most*, or *many*

Instead of *no* or *none*, use *very few, hardly any, almost no,* or *almost none*.

Task 4

a) Writing is preceded by long hours of reading. Because a good reading requires an active mind, fluent readers make use of "predictions" about the material they are reading. Read the text below and try to guess the meanings of the words in **bold** by completing the blanks. The reference to the paragraphs may be of help.

THE PATIENT-PHYSICIAN RELATIONSHIP

1
The combination of medical knowledge, intuition, and judgment defines the *art of medicine*. It is as necessary to the practice of medicine as is a sound scientific base. No greater opportunity, responsibility, or obligation can fall to the lot of a human being than to become a physician. In the care of the suffering he needs technical skill, scientific knowledge, and human understanding.

2 Medical workups and records often fail to include essential information about the patient's origins, schooling, job, home and family, hopes and fears. Without this knowledge, it is difficult for the physician to gain rapport with the patient or to develop insight into the illness. The ideal physician-patient relationship is based on thorough knowledge of the patient, on mutual trust, and on the ability to communicate with one another.
3 *Tact, sympathy and understanding are expected of the physician, for the patient is no mere collection of symptoms, signs, disordered functions, damaged organs, and disturbed emotions. He is human, fearful, and hopeful, seeking relief, help and reassurance. To the physician, as to the anthropologist, nothing human is strange or repulsive. The misanthrope may become a smart diagnostician of organic disease, but he can scarcely hope to succeed as a physician. The true physician has a Shakespearean breadth of interest in the wise and the foolish, the proud and the humble, the stoic hero and the whining rogue. He cares for people.*
4 Many trends in contemporary society tend to make medical care impersonal. Some of these include (1) vigorous efforts to reduce the escalating costs of health care; (2) the increasing reliance on technologic advances and computerization for many aspects of diagnosis and treatment; (3) the increased geographic mobility of both patients and physicians; (4) the need for more than a single physician to be involved in the care of most patients who are seriously ill; and (5) an increasing tendency on the part of patients to express their disappointments with the health care system by legal means (i.e., by malpractice litigation). Given these changes in the medical care system, maintaining the humane aspects of medical care and the empathetic qualities of the physician is a major challenge. It is now more important than ever that the physician consider each patient to be a unique individual deserving of humane treatment, regardless of personal or financial circumstances.

5
Moreover, the accumulation of laboratory data does not relieve the physician from the responsibility of careful observation and study of the patient. Because diagnostic tests often do not provide important new information even when their results are accurate, several questions should be considered in deciding when to order diagnostic tests. First, how likely is the disease in question? Second, what would be the clinical consequences if the diagnosis were missed or if the patient were mistakenly treated for a disease that is not present? The physician should consider the probabilities, the risks, the likelihood and costs of obtaining new information.
6
Finally, it may be convenient to emphasize that physicians need to approach patients not as 'cases' or 'diseases' but as individuals whose problems all too often transcend the complaints that bring them to the doctor. The famous statement of Dr. Francis Peabody is even more relevant today than when delivered more than a half century ago: "One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient." Adapted from Harrison's 14th Edition CD

1. ***Sound*** scientific base is to have a ***sol*****_____** base. *(Par 1)*
2. …it is difficult for the physician to ***gain*** rapport with the patient; that is to ***obt***___ *rapport**...*** (Par 2)
3. The ideal physician-patient relationship is based on ***thorough*** or **comp___** knowledge of the patient, on mutual ***trust***; i.e. **conf_____**. (Par 2)
4. ***…regardless*** *of* personal or financial circumstances or what is the same not ***cons*****_____** them. *(Par 4)*
5. Because diagnostic tests often do not provide important new information even when their results are ***accurate***, that is ***ex*****____** or ***prec*****____**. *(Par 5)*
6. …how ***likely*** is the disease in question? I mean is it ***prob*****____**? *(Par 5)*
7. …what would be the clinical consequences if the diagnosis were ***missed…****?* Not even misdiagnosed, simply ***not diag*****_____**. *(Par 5*

b) Now using the strategies for note-taking and organizing your material together with the linguistic devices discussed above reread the article and proceed as suggested below.

1. Why are italics used in Paragraph 3?
2. What expression is used in Paragraph 4 to express cause and effect? What is the cause here? What about the effect?
3. Is there any explanation in Paragraph 4? Which?
4. What is the function of *moreover* in Paragraph 5? Explain.
5. What words and phrases signal main points in Paragraph 5?
6. What is the function of *because* in that same paragraph?
7. Why are double quotations used in Paragraph 6?
8. What word is telling us that we have come to the end?

c) Work in groups and write a summary. Make use of the hints for writing you have learned so far.

Task 5

- The spotlight now moves to a particular form or variety of paper presentation, which has become a widely accepted and meaningful part of many meetings, because many people have come to believe that some types of materials can be presented more effectively in graphic outlines, than in the confines of a traditional 10 minutes oral presentation. **The poster**

a) The word *poster* generally means *a bill or placard usually decorative or pictorial, for posting in a public place*. In the field of medical research, however, it gets a very special implication. Work in groups and discuss your preferences, then try to reach a general agreement on the advantages of this type of scientific presentation. Be ready to report your answers to the rest of the class.

b) The words in the box below are all connected with the language to describe the organization of a poster. Work in pairs and use them to complete the summary provided in the text.

purpose - visible - section - introduction - results - brief - available - evaluation - conclusion - discussion - describe - methods - designed

The (1) _____ should present the problem succinctly; the poster may fail unless it has a clear statement of (2) _____ right at the beginning. Sometimes (3) _____ are included within the introduction. If you set this (4) _____ aside it will be very (5) _____ perhaps just a sentence or two will suffice to (6) _____ the type of methodology used. The (7) _____ which is often the shortest part of a written paper is usually the major part of a well (8) _____ poster. Most of the (9) _____ space should be used to illustrate results. The (10) _____ should be brief and some do not even use this heading, instead the heading (11) _____ appears in a very (12) _____ part in the form of numbered short sentences. Discussion is usually left for interested participants and for the (13) _____ committee.

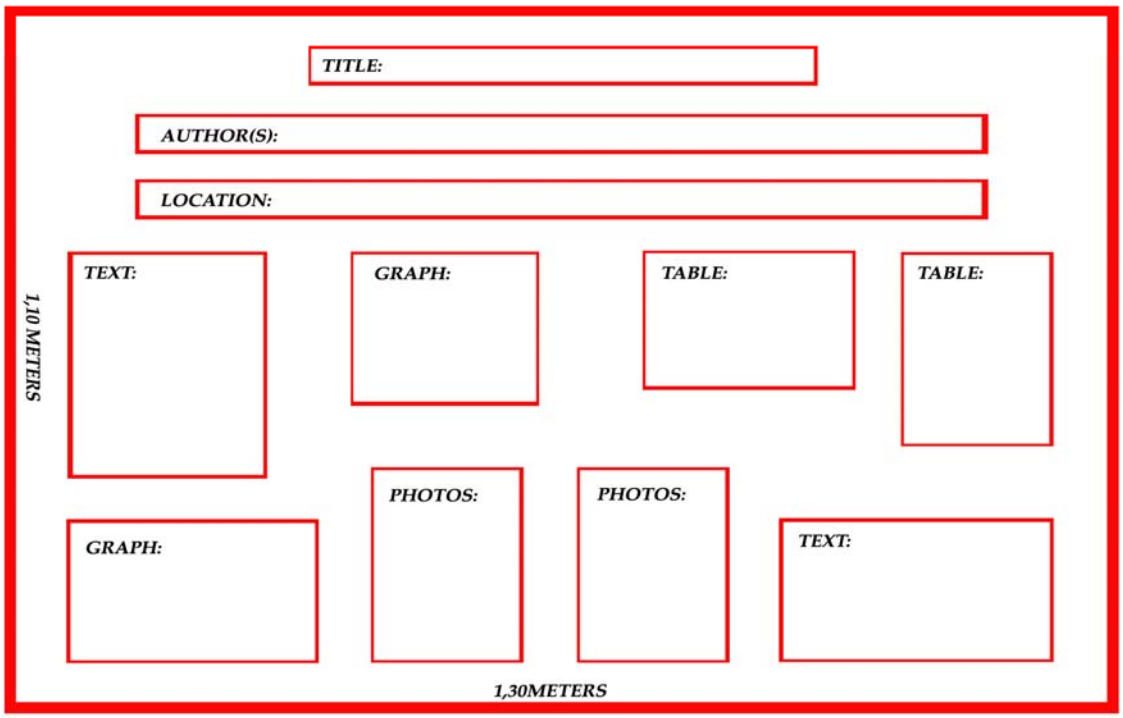
c) What is the format the organization of a porter usually follows?

- The following text is meant to be read and analyzed thoroughly. It provides useful guidelines on how to produce a poster

  - The **size** of a poster is usually defined by the organizers of the meeting, most commonly 80 cm wide and one meter high or one meter wide and 120 cm high. There is a tendency, however, to present wider posters (150 cm wide) × (110 high to ease visualization and reading)
  - The **title** should be short and attention grabbing. It should be readable out to a distance of at least four feet. Poster titles, using a font size of 60 point (30 mm high) will stand out and be easy to read. (bold and black typeface).
  - The name of the **authors** and their location should be somewhat smaller.

- The minimum **type size** should be no less than 18 point, (4 or 5 mm high) and the **style** should be bold or semi-bold in simple, clean looking type (usually Arial). Studies show that a text written in all capital letters is hard to follow.
- Number your poster to agree with the program of the meeting.
- Design the poster to cover the entire tack board surface.
- The number of words should not exceed 500.
- Lots of white space throughout the poster is essential. Tightly packed space tires the eye and the mind.
- Citations should be kept to a minimum.
- Posters should contain highlights so that passers by can easily discern whether it is something of interest to them.
- Preferred colors are black, blue and green.
- Make clear what is meant to be looked at first, second, etc. Generally from left to right, from top to bottom.

Sample Layout for a medical poster



Task 6

This final section is normally the last part of an academic text to be written. **The Abstract.**

An abstract is a type of summary of a paper or a presentation which you may be required to submit or to send in advance. After the title, it is the second most read part of a paper. Abstracts should be short, intelligible, informative, and interesting. And what's more important; it should stand alone.

What should an abstract contain?

Why what was done was done?

What was done?

What was found?

What was concluded?

Useful hints for writing the abstract

- Write the abstract as one paragraph
- Use the techniques of continuity to make the paragraph flow
- Use signals to indicate the parts of the abstract. Signal **what you found** by **"We found that…"** or something similar; **the answer** by **"We conclude that…"** or **"Thus…"** or something similar; **implications** by **"We suggest that…"**
- The **question** and **what was done** can usually be written in one sentence. **"To determine X, we…"** If not you may write "**We asked whether…To answer this question…"**
- Use appropriate verb tenses**. Present tense** for the **question** and the **answer. Past tense** to state **what was done** and **what was found.**
- Write short sentences. Avoid noun clusters.
- Use simple words. Avoid jargon. Avoid abbreviations

The permissible length varies but **200** words is a good average target. An unstructured abstract contains a maximum of **150** words while **250** are suggested for fully structured formats.

The abstract should contain short answers to the IMRAD questions.

a) The abstract below corresponds to the article presented in jigsaw bits in task 2b). Read it and with your partner answer the questions that an abstract should contain.

Paramedic practitioners have been trained with extended skills to assess, treat, and discharge older patients with minor acute conditions in the community. To evaluate the benefits of paramedic practitioners assessing and treating older people in the community after minor injury or illness we conducted a cluster randomised controlled trial involving 56 clusters. Weeks were randomised to the paramedic practitioner service being active (intervention) or inactive (control) when the standard 999 service was available. The participants were 3018 patients aged over 60 who called the emergency services. Patients in the intervention group were less likely to attend an emergency department or require hospital admission within 28 days. They were more likely to report being highly satisfied with their healthcare episode. There was no significant difference in 28 day mortality. We conclude that paramedics with extended skills can provide a clinically effective alternative to standard ambulance transfer and treatment in an emergency department for elderly patients with acute minor conditions.

- Presenting a paper at an academic meeting is a small but significant part of a doctor's work. Below are useful hints that will help you prepare and deliver your academic talks.

Techniques for a good presentation

- Prepare it well in advance
- Identify the main points.
- Make the prose conversational
- Practice delivering the talk over and over again.
- Don't read all the time.
- Prepare cards for the salient points to use as prompts.
- Do not overcrowd your OHTs, or slides, or posters with too much information.
- Time yourself.

- Get your colleagues to give you constructive and critical feedback.
- Face the audience instead of looking at your OHTs, or slides, or notes all the time.
- Make eye contact with a variety of different people in the audience.

ANATOMY OF A PRESENTATION

Greetings

- Good morning. Thank you, Mr. Chairman…/Mr.____/Mrs.____
- I'd like first of all to thank the organizers of this…

Opening remarks

- The title of my presentation is…
- I'd like to talk about…
- My topic today is…
- Today I'm going to tell you about…

The plan

- I have divided my talk into four…
- The first point I'm going to make concerns…
- My first point concerns…
- The first part of my talk is…
- My second point concerns…
- My third point is about…
- In the fourth part I deal with…
- Finally, I'd like to talk a little about…

Opening the main section

- Let me begin (start) by suggesting…
- (…) by drawing your attention to…
- I'd like to start (begin) by…
- Moving to a new point
- Let me now turn to...
- Moving on to the question of…
- If we now look at…

- Let's now look at the question of…
- Can we now turn to…?

Elaborating a point

- I'd like to look at this in a bit more detail.
- Let me elaborate on this point.
- Let's look at this problem in a bit more detail.

Postponing

- I'll be returning to this point later.
- I'll be coming back to…
- As I'll show later…
- Later I'll come back to…

Referring back

- Getting back to the question of…
- As I said earlier…
- As I mentioned earlier
- As we saw earlier…
- As you will remember…

Highlighting

- The interesting thing about…is…
- significant
- important
- The thing to remember is…
- What you have to remember is…

Indicators

- Ok…, right…, right then…, good…, now…, well…, well now…

Summarizing

- The main points that I have made are…
- In conclusion I'd like to say…
- Just before concluding I'd like to say…
- Summing up then…
- To sum up…

CONCLUSIONES

El curso *Introduction to the language of research* forma parte del proyecto de desarrollo de la enseñanza posgraduada del Departamento de Inglés de la Universidad de Ciencias Médicas de Camagüey pues manifiesta la contribución del IFM a la sistematización y la integración de los contenidos y a la formación científica y académica de los profesionales de la salud. Es una unidad de referencia insertada dentro de los contenidos de la serie *English Through Medicine* I y II, para el cuarto y el quinto años de la carrera de Medicina, respectivamente, porque brinda elementos lingüísticos claves para la investigación científica y constituye un instrumento para el desarrollo de la tutoría de la actividad científica estudiantil. Igualmente, contribuye a elevar la calidad en el modo de actuación de los futuros médicos y de los que están en ejercicio, lo que representa una solución a los problemas de la comunicación en el cumplimiento de misiones y colaboraciones internacionalistas en países donde el idioma inglés sea el medio de comunicación.

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