Communication Skills? How to Make them an Asset for Young Engineers

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Abstract

There is no doubt that engineers need to develop oral and written communication skills during their engineering degree in order to satisfy the expectations of the profession and employers. According to the Canadian Engineering Accreditation Board, the development of communication skills must be part of any engineering curriculum. These cross-disciplinary skills should be integrated throughout the curriculum in order to create links between technical and communication skills. Project-based design courses provide real-world contexts for the development of communication skills.

Our actions could benefit from a broader view of communication skills. In this respect, this paper presents a chart structured around four communication situations: reception, production, mediation, and interaction. For each situation, the chart associates a general skill and presents the skill elements, learning objectives, skill activation context, and task samples. The chart can help the Faculty and program or department heads to develop pedagogical strategies and integrate them into specific courses or throughout the curriculum.

1. Introduction

Highly successful professional engineers do not only have technical capabilities. In fact, professional engineers spend a lot of time communicating with colleagues, clients and stakeholders. As reported by Hissey [1], «engineers are expected to complement their technical knowledge and capability with extra skills, both to add value to their contributions to the organization and to enjoy personal achievement and success». However, employers and professional boards often complain about communication weaknesses among young engineers as they enter the work force. Adequate communication skills are

generally needed to get a good job. If the young engineer is clear in expressing his thoughts and articulating his accomplishments and attributes, an interviewer is more likely to form a good opinion of him and to better understand his qualifications and abilities. But in general, engineering students are not known for their communication skills. Clearly, learning how to communicate is not the primary reason for students' enrolment in engineering university programs. As the development of those skills is of lesser importance, it should not come as a surprise that communication weaknesses could be observed among students. Varying with each student's aptitude, background, and effort, their communication abilities show great discrepancy. Some of our students complete their degree with strong communication skills while others still have weaknesses. Nevertheless, communication skills will develop as the engineer matures professionally, and job pressure will eventually offer opportunities to make up for those weaknesses. However, is it preferable for all engineering students to develop such skills during their undergraduate studies? The fact that the Canadian Engineering Accreditation Board (CEAB) [2] requires the development of communication skills does not necessarily guarantee that all graduate students will become good communicators before the end of their program.

Developing efficient communication skills in our students is a difficult task. For example, learning to communicate within an integrated context such as a project-based design course is often the approach favored by the Faculty. However, the teamwork promoted in these courses often leads to the exploitation of team members' strengths, which may have the effect of maintaining the communication gaps in some students. We must admit that we do not always successfully achieve the development of these skills in all our students.

Undoubtedly, our actions could benefit from a broader view of communication skills development.

In that respect, a Strategic Communication Skills Development Program (CommUniQ: pour des savoirs qui s'expriment!), fostered by the University du Québec (UQ) and its nine institutions, has been implemented. This paper presents a chart of communication skills to be developed within undergraduate programs. One interesting aspect of this chart resides in the fact that it revolves around four communication situations (reception, production, mediation, interaction). Each situation has been paired with a distinctive skill that can then be divided into skill elements, learning objectives, skill activation context and tasks to help in building the skills. The project CommUniQ of the UQ network is also structuring a repository of pedagogical resources that can be found at communiq.uqar.qc.ca/outils.htm. This paper concludes with some strategic thinking related to the use of the chart from the perspective of engineering education.

2. Communication skills chart for undergraduate programs

2.1 Communication skills for undergraduates

Communication is intertwined with every aspect of learning and society. Communication skills are part of the essentials skills that need to be developed among university students along with comprehension, application of knowledge, critical thinking and life-long learning [4]. Communication skills are part of everyday life as well as a professional asset. An increasingly large number of employers in Quebec and in Canada [5] consider these skills as less important than attitude but more important than academic credentials.

The importance of communication skills development is linked to a chain reaction within Canadian universities that aim to enhance undergraduate studies through the development of learning-centered curriculum. This reflects the international context of curricular reforms [6-7] and national efforts to create new indicators of university accountability regarding student education [8]. The significant pedagogical shift from a teaching-centered to learning-centered approach [9-10] is at the core of faculty/student relationships considered to be the perfect loci of learning development quality [11]. These interconnected opportunities can benefit curriculum development in general, but especially regarding professional programs such as engineering, which is entrenched in professional practice, closely linked to socio-economics demands and characterized by the double development of student professional practice and intellectual endeavors.

2.2 CommUniQ project purpose

The Université du Québec network is composed of nine universities where over 6,500 faculty and associates teach 87,000 students across the province of Quebec. About 80% of the diplomas issued by the network universities are to undergraduates (BA and certificates). The importance of accessibility to higher education studies is part of the statement of purpose of this government-funded University but is now concerned with the quality and pertinence of programs that constitute the next step into the process of providing the means to ensure student success.

The CommUniQ project (CommUniQ : pour des savoirs qui s'expriment !) is funded by a strategic teaching and research development fund (FODAR) allocated by a group of network teaching and research Vice-provosts. As part of a strategic orientation of the network regarding the success of undergraduate students, communication skills along with information skill development is an added value for all students earning diplomas through the network universities. CommuniQ aims at fostering comprehension, expression and interaction among both undergraduate and graduate students. The main objective of the CommUniQ project is to give to the network universities the opportunity to develop, acquire and use tools as well as models of skills integration into curriculum development. The curriculum and institutional levels are the main targets of the CommUniQ project. A series of pilot projects (a total of twelve projects in two separate waves (2005-2006/2007-2008) have been developed in collaboration with faculty and professionals from all the network institutions. They have been directed towards student learning but also teaching efficiency.

CommUniQ project revolves around two main orientations: Integrated approach and Skills Options. The integrated approach aims at faculty development to empower faculty and associates to achieve teaching efficiency. The Skills options is based on changing perceptions among faculty about student learning as well as developing pedagogical variation, linking teaching strategies to professional contexts and developing a better comprehension of skills evaluation. It is based on writing across curriculum (WAC) and communication across curriculum (CAC) movements that are suggesting the construction of a progressive pathway to skill development by collecting teaching and learning pedagogical resources to support this progressive construction. A specific way to achieve this progression is by designing tools to help faculty to spread this skills development process throughout existing curriculum rather than in a specific course.

2.3 Communication Skills Chart: the Central Part of the Project

The corner stone of CommUniQ pour des savoirs qui s'expriment ! is a communication skills chart. As the first tool developed, all twelve CommUniQ pilot projects are linked to this chart as well as the pedagogical resources found in a CommUniQ repository (<http://communiq.uqar.ca>).

The chart was created by a group of linguistics and communication experts, second language education faculty and writing center directors. The Cadre européen commun de référence pour les langues : apprendre, enseigner, évaluer [12] was the working foundation for the experts team. It reflects the same pragmatic approach adopted by CommUniQ which considers language as one, yet not the only component, of every communication situation. To respect all fields, symbolic and mathematical languages were also taken into consideration.

This chart functions as a geographical map. It can be used by faculty to identify essential skill elements to consider or assess. It has been structured in such a way as to guide skill development in courses (which elements to prioritize in disciplinary contexts) or in curriculum development (which elements to organize in a progression that can give sufficient opportunities in a three or four year course for students to master the different aspects of necessary skills). It aims to 1) develop an overview of skills, 2) select which skills are more suitable in the context of specific disciplines, 3) identify skills to be integrated into learning objectives and linked to assessment objectives, 4) specify, guide and change perceptions about specific skills and their components, 5) help to integrate the specific tasks of the pedagogical strategies, and 6) access pedagogical resources to further the integration of skills development.

Professional skills charts are constructed based on professional work analysis. They generally target the construction of professional curriculum. Based on professional work analysis, these charts present technical or discipline-related skills for professional tasks [13-14]. CommuniQ's chart is considered a generic communication skills chart and targets the skills to be acquired regardless of the discipline, the type of curriculum (professional or general) and the specific course (introduction to thermodynamics or communication). The chart can easily be integrated in the underlying assumptions of learning-centered curriculum [15]: learning communities, varied pedagogical strategies and clearly defined outcomes which can be assessable, transferable and relevant to the learner's professional life.

2.4 Communication Skills: Definition

Two kinds of skills have been used in the construction of the chart - language skills and communication skills. Skills from the two categories are expressed through different kinds of communications situations.

Language skills refer to language acquisition and usage in a first or second language in both oral and written form. The broader sense of language also refers to interactions and social and cultural adaptations that are intertwined with general language use. Moreover, communication skills are related to a wider range of knowledge, procedures, and attitudes to be activated by symbols, ranging from mathematical to technological symbols, such as the use of Internet. The efficiency of communication situations depends on situations where those specific codes (linguistic, social, technological) are consciously activated.

This distinction also demonstrates the underlying fact that communication skills are essentially cross-disciplinary and can be related to a wide range of different professional contexts, disciplines epistemologies, procedures and essays that university students have to tackle in order to learn their trade. They are not technical nor disciplinary skills but nevertheless considered skills as they correspond with the following adapted definition: that which aids in handling a series of complex situations by mobilizing different kinds of resources. They can be acquired at different times during training and originate from a variety of disciplines and experiences [13]. They combine knowledge, skills and attitudes [14] and must be repeatedly activated in order to help students attain levels of mastery; this can be achieved if integrated in a curriculum development.

2.5 Chart Structure

Regarding the nature of communication skills and the difference between language and communication skills as well as the concern for creating a user-friendly tool to help curriculum development in different disciplines, the chart presents these specific features (<http://communiq.uqar.ca/>):

1. Place the student in four communication situations:
 - **Reception:** action requiring usage and adaptation of strategies enabling the recognition, comprehension, and appreciation of oral and written productions;
 - **Production:** action requiring planning, structuring, executing and assessing actions

in the construction and production of a message;

- **Mediation:** action requiring reception activation and production strategies to produce a new message based on existing messages;
 - **Interaction:** action requiring reception activation, production and social, relational and mediation strategies, as well as cooperative skills to be effective in a reciprocal context.
2. Skills elements column: detailing general skills and elements to be activated
 3. Learning objectives column: objectives which help determine what kind of pedagogical strategies to be used to enhance skills acquisition and tailor assessment activities
 4. Skill activation context column: generalize professionally related situations that are tagged for their relative importance as well as show how to combine them into a progression and influence according to specifications
 5. Task samples column: these tasks are considered to be examples of situations that allow for the activation of different elements of chosen skills

These features constitute the skeleton of the complete chart in which skills and communication situations are paired. The complete chart can be consulted in annex A. The skeleton is in itself the starting point of a process that can be followed in different kinds of communication situations as they are combined to skill rubric and elements, learning objectives, skill activation context and integration tasks.

3. Use of the chart in engineering education: avenues to explore

Like other professionals, engineers in all positions must be able to communicate successfully both orally and in writing in order to accomplish the objectives within responsibilities. They must communicate with many people: managers, co-workers (many of whom are not engineers), union members, customers, stakeholders, etc. Communication skills are survival skills [3] for a professional engineer and should not be considered optional. Clearly, a professional engineer in his functions encounters reception, production, mediation

and interaction situations. When handling a reception situation, the engineer is constantly processing and interpreting data in order to bring out the meaning of the message. Furthermore, an important task for the engineer is to produce clear, concise and comprehensible oral and written messages. Beyond the function of producing, an engineer is mediating when he adapts, transmits, reformulates, or translates a message while considering the context of a situation. Finally, an engineer is interacting when he/she effectively participates in an oral or written reciprocal communication. In an interactive context, an engineer must choose the appropriate mode, with respect for all parties, so that the communication progresses in accordance with the accepted standards. In other words, professional communications require clarity of expression, ability to structure and organize thoughts, ability to be a good listener, ability to negotiate and other qualities such as empathy. Limited written and verbal communication skills can severely hinder professional growth in engineering. The quality of communication skills can either permit or prevent an engineer's promotion within an organization.

In many programs, there is a compulsory communication course that targets the development of skills by presenting communication-related content. Although our students do need this course, many of them are not motivated because they do not see the relevance of these skills. In such a course, the learning of communication skills is neither linked to design and engineering courses, nor integrated within an engineering context. However as Riemer [16] points out, it is not enough to introduce such a course; the communication skills must be integrated and utilized throughout the curriculum to demonstrate application and reinforcement of the performance. Incorporating elements of communication skills throughout the curriculum, instead of or in addition to a separate course, creates links with technical skills, enhances and contributes to the improvement of communication skills. Communication skills are cross-curricular skills that require careful attention throughout the engineering program. In order to maintain some level of consistency, the oral and written communication exercises integrated into the different courses should be part of the grading process.

In UQAR's engineering programs, the chart is considered as a first step toward the full integration of communication skills throughout the curriculum. It presents an overview of the communication skills that young professionals need. The chart and its various elements (skill elements, learning objectives, skill activation context and integration task samples) will be used to organize the teaching of communication skills and aid the development of pedagogical tools

and strategies. The learning objectives and skill elements of the chart can be used for building rubrics (grids of evaluation). For example, École de Technologie supérieure de Montréal (ÉTS) [17] has already used the chart and built grids for assessing the quality of technical reports. Also, the context of activation and task samples are an excellent starting point for developing specific learning activities.

In most engineering programs, there is a sequence of project-based design courses often beginning in the first semester. A project-based design course gives real-world contexts for the development of design skills. In such a course, the students have the opportunity to work with real customers, meet desired needs, solve real problems using modern tools, apply all the steps of design cycle, deliver a functional prototype, manage a real project, understand the professional and ethical responsibilities of the engineer, work in teams with other students and produce oral and written communications. For these reasons, design courses provide a perfect context for the opportunity to organize communication skills development.

At UQAR, the sequence is composed of four courses, which are an important part (the sixth) of the engineering programs. Communication skills are already integrated in design courses, but the management of communication skills development of each student is a difficult task. We plan to further incorporate them into the design part of our program. To achieve this objective, we will explore two management tools (in addition to grids already used) for assessing and monitoring the communication skills development: the student's individual roadmap of communication skills and professional portfolio. The student's roadmap will constitute a list of skill elements that each student needs to develop. It will then be used to ensure that each student has reached the level required for the skill elements. Because the roadmap is an individualized document, it will allow the tracking of the student's progress from one course to the next. The portfolio is a notebook that will be used to record one's thoughts, strengths and weaknesses related to the development of communication skills. The portfolio will also indicate individual contributions towards the group project. The goal is to promote the development of communication skills among all our students.

4. Conclusion

The Strategic Communication Skills Development Program of Université du Québec and its nine institutions has developed a chart that furthers our

understanding of communication skills. The chart presents an overview of the skill areas and categorizes them into four communication situations (reception, production, mediation, interaction) paired with four distinctive skills. Each skill is divided into skill elements, learning objectives, skill activation context, and tasks samples. The chart was produced to promote better organization of the learning and teaching of communication skills, to develop pedagogical tools and strategies, and to facilitate the integration of communication skills throughout undergraduate programs.

5. References

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Annex A

Chart of communication skills

COMMUNCIATIONAL SKILLS
SKILLS REFERENCE GUIDE

Language Activity in Communication Situations	Skills Standard	Skill Elements
RECEPTION (1) Addresses: <ul style="list-style-type: none"> application and adaptation of strategies to recognize, understand and appreciate oral or written productions. 	Actively treat information to build meaning	<ul style="list-style-type: none"> Adapt listening and reading Understand the meaning of a message Recognize the organisation of a message Recognize argumentative orientation Appreciate the qualities of a message Show respect for the speaker(s) Identify strengths and weaknesses in the integration of skills
PRODUCTION (2) Addresses: <ul style="list-style-type: none"> planning, structuralization, execution and control in the production of a message. 	Produce a clear, organized and effective oral or written communication	<ul style="list-style-type: none"> Define task Consider constituents of the communication situation Organize the content of a message Ensure the credibility of a message Execute the production of a message Adapt presentation strategy Produce an effective oral or written communication Coordinate various operations necessary to accomplish the production Demonstrate rigor and precision Identify strengths and weaknesses in the integration of skills
MEDIATION (3) Addresses: <ul style="list-style-type: none"> strategies of reception and production to produce a new message from one or several others. 	Convey, reformulate, translate, or adapt an existing message while considering the communication situation requirements	<ul style="list-style-type: none"> Analyse selected productions Summarize selected productions Reformulate selected elements stemming from original productions Integrate the content in the production of a second-level message Demonstrate ethics in the treatment of information Adequately use media, didactic modalities and audiovisual aids Demonstrate a concern for aesthetics in productions Identify strengths and weaknesses in the integration of skills
INTERACTION (4) Addresses: <ul style="list-style-type: none"> strategies of reception, production and mediation as well as social, relational and cooperation skills to communicate in a reciprocal context. 	Effectively participate in an oral or written reciprocal communication	<ul style="list-style-type: none"> Identify the communication situation Adapt speech to the communication situation Adapt non-verbal attitudes to the communication situation Adapt posture and gestures to the communication situation Make a contribution which favours communication and ensures the progression of interaction Show respect in interactions Identify strengths and weaknesses in the integration of skills

SKILLS IN RECEPTION CONTEXTS (1)**Actively Treat Information to Build Meaning**

Skill Elements	Learning Objectives		
<p>Adapt listening and reading:</p> <p>Through the selection of:</p> <ul style="list-style-type: none"> appropriate listening or reading strategy to meet various listening or reading needs according to the communication situation <p>Understand the meaning of the message:</p> <p>Through the use of indications provided by:</p> <ul style="list-style-type: none"> intonation and other vocal characteristics titles, divisions, formatting sentence structure grammatical usage (conjugations, agreement, etc.) choice of terms (specialized vocabulary, common meaning/technical) transitional words and thought connectives non-verbal indications specialized language symbols and signs <p>Through the knowledge of governing codes:</p> <ul style="list-style-type: none"> illustrations, diagram, figures, outlines, graphs, spaces, etc. <p>Recognize the organization of a message:</p> <p>Through identification of:</p> <ul style="list-style-type: none"> the type (or genre) of essay/text essay/text outline main ideas and secondary ideas particularities and stipulations unique to the essay/texts belonging to a particular field of training <p>Recognize argumentative orientation:</p> <p>Through identification of:</p> <ul style="list-style-type: none"> the argumentative strategy the argumentative range of terms or expressions used positive or negative connotations of elements in the message the author's presence in the message <p>Appreciate the qualities of the message:</p> <p>Through identification and appreciation of:</p> <ul style="list-style-type: none"> quality of language precision of vocabulary nuances created by terms choice of a suitable tone concern for originality and aesthetics <p>Show respect to the speaker(s):</p> <p>Through choice of appropriate attitudes:</p> <ul style="list-style-type: none"> silence, questions or active listening non-verbal behaviour <p>Identify strengths and weaknesses in the integration of skills:</p> <p>Be aware of listening and reading strategies</p>	<p>Handle information to:</p> <ul style="list-style-type: none"> understand a phenomenon answer a question acquire facts retain, memorize situate a reality obtain background information compare, evaluate, judge make a decision guide actions consider know oneself intervene etc. <p>Skill Activation Context</p> <table> <tr> <td data-bbox="837 730 1149 1234"> <p>Listening to:</p> <ul style="list-style-type: none"> courses conferences audio documents films debates conversations interviews discussions interactions etc. <p>Listening:</p> <ul style="list-style-type: none"> with note-taking without note-taking followed by questions etc. </td><td data-bbox="1149 730 1435 1234"> <p>Reading :</p> <ul style="list-style-type: none"> various types of texts etc. <p>Reading:</p> <ul style="list-style-type: none"> skimming or detailed reading with or without note-taking uniform/variable integral reading selective partial reading partial research reading overview etc. </td></tr> </table> <p>Task Samples</p> <ul style="list-style-type: none"> Compare a scientific and popular article on a same subject and have a debate on the subject Compare two texts, and with partners, compare strategies used for identification of argumentative orientation In pairs, compare note-taking strategies in relation to the same oral or written production At the end of a class, express retained notions in oral or written form Note the steps of a follow-up method in a project 	<p>Listening to:</p> <ul style="list-style-type: none"> courses conferences audio documents films debates conversations interviews discussions interactions etc. <p>Listening:</p> <ul style="list-style-type: none"> with note-taking without note-taking followed by questions etc. 	<p>Reading :</p> <ul style="list-style-type: none"> various types of texts etc. <p>Reading:</p> <ul style="list-style-type: none"> skimming or detailed reading with or without note-taking uniform/variable integral reading selective partial reading partial research reading overview etc.
<p>Listening to:</p> <ul style="list-style-type: none"> courses conferences audio documents films debates conversations interviews discussions interactions etc. <p>Listening:</p> <ul style="list-style-type: none"> with note-taking without note-taking followed by questions etc. 	<p>Reading :</p> <ul style="list-style-type: none"> various types of texts etc. <p>Reading:</p> <ul style="list-style-type: none"> skimming or detailed reading with or without note-taking uniform/variable integral reading selective partial reading partial research reading overview etc. 		

SKILLS IN PRODUCTION CONTEXTS (2)

Produce a Clear, Organized and Effective Oral or Written Communication

Skill Elements	Learning Objectives
<p>Define the task:</p> <ul style="list-style-type: none"> identify the purpose, audience and context of the production clarify intent reiterate written or spoken instructions <p>Consider communication situation:</p> <ul style="list-style-type: none"> intent subject audience physical situation material resources <p>Organise the message content:</p> <ul style="list-style-type: none"> identify the communication intent follow an outline that lines up with the expected genre and area of application structure the content by making links mark out the progression of the message for the audience /speaker highlight the different sections of the essay highlight important ideas consider codes governing figures, outlines, tables, graphs, etc. <p>Ensure the credibility of the message:</p> <ul style="list-style-type: none"> be familiar with the subject demonstrate rigor in the presentation of the content (formulation, specialized vocabulary, etc.) manifest a critical spirit distinguish facts, ideas, opinions and beliefs use valid examples or illustrations respect usage standards of the discipline <p>Execute the production of a message:</p> <p>In oral form-</p> <p>Express oneself using quality language and an unaffected manner:</p> <ul style="list-style-type: none"> speak in an understandable and clear manner (appropriate articulation, pace and strength) use expression (intonation, pauses, accentuation) express oneself in correct Quebec French in the areas of pronunciation, grammar, syntax and vocabulary use a tone suited to the communication situation and remain coherent give a speech which is not the performance of a written text <p>In written form-</p> <p>Write a text using correct French in these areas:</p> <ul style="list-style-type: none"> spelling of vocabulary grammatical usage (conjugation, agreement, etc.) syntax and punctuation vocabulary (adapted and precise) use tone suited to the situation and remain coherent <p>Adapt presentation strategy:</p> <ul style="list-style-type: none"> consider audience characteristics adjust speech according to perceived reactions in the audience consider temporal and material constraints be capable of producing and presenting different types of communications 	<p>Produce an oral or written communication to:</p> <ul style="list-style-type: none"> give an opinion present an argument express reactions share an experience demonstrate understanding restate in one's own words enquire express agreement formulate objections complete the information inform on a subject describe a situation, give a report situate a reality present background information illustrate a situation, a phenomenon compare, estimate, judge clarify decision-making guide actions cause reflection supply directions, advice, instructions explain a phenomenon answer questions discuss a hypothesis explain a solution analyse reflect etc. <p>Skill Activation Context</p> <p>Speak on the occasion of:</p> <ul style="list-style-type: none"> an intervention a statement a conference a course the realisation of an audio document, video, audiovisual or multimedia a debate a discussion etc. <p>Write within the framework of:</p> <ul style="list-style-type: none"> projects reports course notes course reading forms tables preparation notes summaries realisation of an informational document (audiovisual, website, etc.) etc.

	Task Samples
<p>Produce an effective oral or written communication:</p> <ul style="list-style-type: none"> • establish contact with speakers/readers/partners • pique audience interest • adapt to audience (vocabulary style, content density) • be comfortable, have natural posture, gestures and appearance • have non-verbal behaviour that supports the speech • make adequate use of typographic means • adequately use didactic supports (outlines, figures, tables, illustrations, transparencies, PowerPoint presentations, etc.) • choose relevant, simple and legible diagrams, figures or illustrations • demonstrate originality <p>Coordinate various operations necessary to execute of the production:</p> <ul style="list-style-type: none"> • plan the continuation of essay while speaking • be capable of improvising • in written form, coordinate the management of content and shape • coordinate the operations of planning, drafting and revision • coordinate content and use of technical supports (transparencies, posters, PowerPoint, etc.) <p>Demonstrate rigor and precision:</p> <ul style="list-style-type: none"> • diversify sources • prepare carefully • verify conscientiously • refer to dictionaries and grammar resources <p>Identify strengths and weaknesses in the integration of skills:</p> <p>Be aware of the planning, production and execution strategies of an oral or written communication</p>	<ul style="list-style-type: none"> • Draft a text comparing two theories in the same field of training or a theory which is used in two different fields of training • Develop an inquiry questionnaire • Participate in an opinion debate on opposing socio-political positions in relation to a scientific discovery • State inquiry results • At the beginning of a class, a randomly selected student summarizes the previous class • Oral quiz on concepts seen during the class • Identify terms which are false friends (close in meaning)

SKILLS IN MEDIATION CONTEXTS (3)

**Convey, Reformulate, Translate, or Adapt an Existing Message while
Considering the Communication Situation Requirements**

Skill Elements	Learning Objectives
<p>Analyze selected productions: Make sure to:</p> <ul style="list-style-type: none"> • master the intention and organization of the existing speech or text • discern main ideas and secondary ideas of the speech or text used <p>Summarize selected productions: Make sure to:</p> <ul style="list-style-type: none"> • respect the communication intent • consider the context of the production (e.g. knowledge of the author, period, audience) • adequately account for content <p>Reformulate selected elements stemming from original productions:</p> <ul style="list-style-type: none"> • synthesize information originating from a speech or text • reformulate subject matter and writings of others without distorting them • draw parallels, compare and contrast content and writings without distorting or simplifying them • adequately transpose a message from one language to another <p>Integrate content in the production of a second-level message:</p> <ul style="list-style-type: none"> • ensure the pertinence of the usage made • respect standards and procedures set for this task (e.g.: quotation, reference, manner of reporting, etc.) <p>Demonstrate ethics in data processing : Make sure to:</p> <ul style="list-style-type: none"> • integrate content and writings of others into one's own productions respecting content and authorial intent • cultivate a concern for precision and rigor in the treatment, translation or transferring of information <p>Adequately use media, didactic modalities and audiovisual aids</p> <p>Demonstrate a concern for aesthetics in productions</p> <p>Identify strengths and weaknesses in the integration of skills: Be aware of the synthesis, reformulation and integration strategies of an existing message in a speech or text</p>	<p>Ensure mediation to:</p> <ul style="list-style-type: none"> • inform • illustrate • demonstrate • argue • know • retain • stimulate action • cause reflection • etc. <p>+ All the reasons given as examples prior to reception and production</p> <p align="center">Skill Activation Context</p> <p>Respond to an existing speech or text within the framework of:</p> <ul style="list-style-type: none"> • note-taking • summaries • synthesis • report • interviews • forms • debates • discussions • inquiry results • website • exposition • etc. <p align="center">Task Samples</p> <ul style="list-style-type: none"> • Summarize, synthesize or critique an oral or written production • Create a poster integrating information or facts from an external source • Develop a diagram to illustrate the understanding of an idea or concept • Create mental maps to represent a physical process • Assume the role of asking questions to advance reflection on a given project and to explain gathered content in oral and written form • Simplify scientific content for less advanced students or those coming from another discipline • Write an opinion piece concerning certain economic aspects of a new scientific discovery, an introduction of a new product on the market, a new atypical employment, ...

SKILLS IN INTERACTION CONTEXTS (4)**Effectively Participate in an Oral or Written Reciprocal Communication**

Skill Elements	Learning Objectives
<p>Identify the communication situation:</p> <ul style="list-style-type: none"> identify the intervening factors in the communication situation (participants, purposes, context, time, material resources) identify the explicit and implicit contents of the communication situation recognize the speakers' communication intent <p>Adapt speech to communication situation:</p> <p>Choose the right mode of communication according to the context (personal, public, professional or educational)</p> <p>Adapt non-verbal attitudes to the communication situation</p> <p>Adapt posture and gestures to the communication situation</p> <p>Make a contribution favouring communication and ensuring the progression of interaction:</p> <p>In the presentation of point of view:</p> <ul style="list-style-type: none"> explain in a clear manner present supporting arguments develop arguments – as many as / no more than necessary opposite another speaker: demonstrate receptiveness adopt a listening attitude demonstrate interest in opinions and ideas ask for clarification when needed accept divergent opinions highlight positive contributions hand over the floor when necessary <p>In interaction:</p> <ul style="list-style-type: none"> react to others' reactions and feedback honestly answer questions or requests for clarification express and justify reactions in regard to presented ideas reformulate the content of others without deforming it be open to compromise make suggestions, look for solutions <p>In interactive activities:</p> <ul style="list-style-type: none"> encourage participation recapitulate on the discussion or debate summarize content recognize links initiate bring out participants' contributions preserve a neutral position if necessary conclude in a suitable way demonstrate respect in interactions: accept others adapt contribution to others be conscious of the contribution of group interaction and discussions and commit to it in a serious and honest way <p>Identify strengths and weaknesses in the integration of skills:</p> <p>Identify strengths and weaknesses when participating in reciprocal interaction, both oral and written</p>	<p>Interact to:</p> <ul style="list-style-type: none"> transmit information react express opinion show agreement/disagreement obtain information develop an argument regulate behaviour analyse synthesize make decisions draw conclusions consider impacts of the communication educate resolve a problem come to a consensus resolve a conflict etc. <p>Skill Activation Context</p> <p>Interact in the frame of :</p> <ul style="list-style-type: none"> courses teamwork classroom interaction formal discussions debates interviews job interviews project management videoconferences discussion forums correspondence emails project follow-up etc. <p>Task Samples</p> <ul style="list-style-type: none"> Prepare a job interview Challenge judgment on evaluation of written texts Discuss the reason for a well-founded project, practice, action, etc. Participate in a debate Plan the progress of a teamwork project Interview a specialist Discussion following reading on a subject (possibly from precise questions)