

Making Engineering Graduation Theses Presentations in English

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This course is specifically designed for 4th year engineering students at the University of the Ryukyus (Ryudai) from the departments of information engineering, mechanical systems engineering, electrical engineering and civil engineering who are preparing to make a formal academic presentation in English based on their graduation theses. Course members are introduced to the full range of appropriate communication skills and necessary presentation techniques and linguistic structures which they then apply directly to their own thesis presentations.

Introduction to the Text

The fruits of academia include new theories, revolutionary approaches or groundbreaking research, however the ability to be able to express any of these effectively is almost as important. Increasingly, whatever the discipline, students are required to demonstrate their command of subject matter by giving presentations. In order for international academic collaboration and the furthering of both academic endeavor generally and individual achievement, the ability to present work not only in a native language but also in English has also become evermore necessary.

This text, and the course of which it is a part, aim to address this reality by teaching students how to make an effective presentation in English, which is an area of study of in itself. It covers all aspects of preparation and delivery, and, is based on materials developed for the Technical English Seminar, or Gijutsu Eigo Seminaa (技術英語セミナー) that has been principally operated out of the Department of Information Engineering for the last 6 years. The two individuals most responsible for recognizing the need for such a course, organizing and administering it since its inception, then commissioning a text, are Professor Morikazu Nakamura and Professor Takeo Okazaki.

Some materials herein derive directly from ideas developed by others (in such instances the original source will be indicated), some were the result of adapting ideas from related sources for use in this context (all contributing materials are listed in this document), and the rest was developed by myself to address the specific needs of engineering students from the various branches. Whatever the origin, everything contained within has been utilized on the course over the years and has proven effective. The hope is that this current text will prove a useful basic tool for future teachers and students in the ongoing improvement of students' graduation thesis presentations.

John Michael Purves – Ginoza Village, Okinawa Prefecture – 24th August 2010

Introduction to the Course

Making a presentation in your native language is daunting enough let alone attempting it in a foreign language. Most students who take this course have received little if any training in the art of public speaking in Japanese and this fact combined with limited English language skills and time, renders the goal of the course, 'making a final graduation thesis presentation in English', an extremely challenging one. Fortunately even such fundamental obstacles to its achievement are by no means insurmountable.

The most essential element of the presentation is naturally the thesis material and, given that students have command of their subject matter, the hardest part is over and what remains is for teachers to provide them with a range of presentation skills and enough survival presentation English for them to convey their research successfully in English. Learning the best ways of getting a message across physically, organizationally, linguistically and visually, is particularly useful for those presenting in a foreign language as, if adhered to, this information helps to balance out their linguistic disadvantage, and make them more comprehensible. Despite such help, the task of making a smooth and easily understandable presentation in English still represents a considerable challenge for Japanese engineering students, but with hard work former students on the course have risen to it admirably.

It should be noted that although teachers may succeed in awakening in the student a desire to improve his or her English during the course and hopefully after too, we should not be under any illusions as to whether we are going to bring about any great increase in students' general ability in 15 weeks. The primary goal is to give them all the practical skills and linguistic help we can to accompany the technical knowledge they possess about their subject matter in order to equip them to deliver a solid presentation.

In the belief that the greatest exposure to English by teaching and learning in English over the relatively short period of the course will most stimulate their immediate ability to communicate in English, most of the teaching on the course and the accompanying text are in English. However, given the timeframe and the specific goals of the course, if students' English language levels are more limited, it may prove beneficial to deal with the presentation theory and feedback on presentations in Japanese. With this in mind, good Japanese references for explaining the necessary theory have been included.

Course Plan Overview

Primary Course Objectives

The primary course objectives are as follows:

- a) to teach the required presentation skills for making effective engineering thesis presentations
- b) to provide practice opportunities and feedback within the 90-minute class context
- c) to fit the course roughly within the same timeframe as student research progress

The assumption is that there will be approximately 10 students per class. The course is spread out over 16 weeks with one class per week. Classes are a combination of presentation theory and specific student *sotsugyou ronbun* (graduation thesis) work. The purpose is to teach presentation skills which students then apply directly to their own work. The classes are organized consistent with the ongoing process of the student completing their *sotsugyou ronbun*. Although, this course is predominantly devoted to presentation theory and practice, the course also deals with answering questions as this is a prerequisite accompanying skill in an academic context.

Class Themes

The most relevant aspects of presentation theory have been selected and performance opportunities planned for within the allotted 16 class hours:

- [01] Orientation (Modes of Communication and Effective Presentations)
- [02] Physical Skills (The Body as a Communications Device 1 – Eye Contact and Posture)
- [03] Physical Skills (The Body as a Communications Device 2 – Gestures and Voice)
- [04] Structure and Organization (Guiding the Audience 1 – Structure, Time and the Introduction)
- [05] Structure and Organization (Guiding the Audience 2 – Transitions and Sequencers)
- [06] Presentation Performance – Introduction and Background
- [07] Developing Visual Materials (Basic Slide Design Aspects)
- [08] Developing Visual Materials (Explaining Slides)
- [09] & [10] Presentation Performance – Methodology
- [11] Dealing with Questions (Recognizing Question and Comment Types)
- [12] Dealing with Questions (Responding to Questions and Comments)
- [13] & [14] Presentation Performance – Experimental Processes and Results
- [15] Structure and Organization (Guiding the Audience 3 – Summary and Conclusion)
- [16] Final Presentation

Each class covers some aspect of presentation theory or a review of previously focused areas, and practice tasks aimed at developing presentation skills. Some classes will be predominantly theory-based whilst others will focus mainly on presentation practice and feedback from the teacher and other members of the group. In critiquing presentations the search is for presentation best practice.

Course Plan

This course plan has been designed to enable students to prepare comfortably for their final presentation in class/week 16 of the course. After each class students are given a homework assignment (carefully coordinated not to coincide with times when students are too busy with other academic commitments) to prepare for the following or a later in-class practice task. They receive feedback, and corrected work is then ready to slot into their full scenarios for the final presentation. The aim is to gradually assemble their scenarios. The listed in-class practice tasks represent a minimum, but depending on time and progress, instructors may include other suitable tasks.

Class	Class Themes & Objectives	In-class Practice Tasks	Homework Assignments
1	<p>Orientation (Modes of Communication and Effective Presentations)</p> <ol style="list-style-type: none"> 1) to introduce the course, the grading system and define the nature of engineering presentations 2) to discuss what makes one presentation better than another 3) to assess how students cope with public speaking 	<p>Task 1 – Students make a brief self-introduction.</p>	<p>Assignment 1 – Write your name, the name of your lab, your presentation title and a 1–2 sentence summary of your contents on a piece of A4 paper.</p>
2	<p>Physical Skills 1 – Eye Contact and Posture</p> <ol style="list-style-type: none"> 1) to explain the communicative power of the human body, beginning with eye contact and good posture <p>to assess students’ initial ability to discuss their work</p> <ol style="list-style-type: none"> 2) 	<p>Task 2 – Students come to the front of class in turn and practice making eye contact for 2–3 seconds with other class members.</p> <p>Task 3 – Students adopt a comfortable pose for presentations and receive feedback on its appropriacy from the class.</p> <p>Task 4 – Students present their titles and topics in front of the class. Presentations are short, but will be followed by clarification questions. Students need to try to adopt a good posture and make eye contact.</p>	<p>Assignment 2 – Locate an academic journal article written in English that relates to your specific area of research. Please bring this to the next class.</p>

3	<p>Physical Skills 2 - Gestures and Voice</p> <ol style="list-style-type: none"> 1) to explain that gestures support speech and other elements of presentations, and what gestures are appropriate in an academic context 2) to look at voice projection (intonation is tough for non-native speakers) 	<p>Task 5 – Students perform a gesture exercise (‘Speaking of Speech’ pages 20–21 or similar)</p>	<p>Assignment 3 – Read through the abstract and introduction of your journal article and use a highlighter pen to mark the key terms and concepts that also feature in your work. Remember that you will need to be able to explain all your key words and concepts simply and effectively in English.</p>
4	<p>Structure & Organization (Guiding the Audience 1 – Structure, Time & Introduction)</p> <ol style="list-style-type: none"> 1) to explain what guiding the audience is all about and why it is critical for their understanding 2) to explain the need for good organization and how structure can help delivery, understanding and memorization 3) to teach how to make an introduction 		<p>Assignment 4 – Make a graphical representation of your presentation and insert your content. Mark how much time you will devote to each section. Please bring to class.</p> <p>Assignment 5 – Prepare your introduction, organized according to the structure presented in class. Please make slides.</p>
5	<p>Structure & Organization (Guiding the Audience 2 – Transitions & Sequencers)</p> <ol style="list-style-type: none"> 1) to explain the need for clear transitions, how to make transitions between main sections and how to use sequencers between subsections 2) to see how students fare presenting their own work with some physical skills and a good structure 	<p>Task 4 – Students present their basic introduction. Students need to adopt a good posture and make eye contact.</p>	<p>Assignment 6 – Prepare your background and objectives section for presentation next week in combination with your introduction. Use slides, and make sure that you use a transition between the two sections. Be ready to answer questions on key words and technical terms. Prepare extra slides where necessary to help answer possible questions.</p> <p>Assignment 7 – Begin thinking about your methodology presentation in 3–4 weeks.</p>
6	<p>Presentation Performance – Introduction, and? Background and/& Objectives</p> <ol style="list-style-type: none"> 1) to assess student performances during their first major research presentation, checking that physical skills are being demonstrated, and that structure and organization advice is being followed 	<p>Task 5 – Students present their introduction and background. Presentations will be 5 minutes maximum. Students will demonstrate good posture and make eye contact. They must include a transition and use slides.</p>	<p>Assignment 8 – Start solid preparation work on the presentation of your methodology section.</p>

	<ul style="list-style-type: none">2) to offer targeted criticism and advice to students3) to test students with questions about their work4) to stimulate group interest and participation in presentation best practices (what works and does not work)		
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7	<p>Developing visual materials – (Slide Design Aspects/Aspects of Slide Design)</p> <ol style="list-style-type: none"> 1) to get students thinking about visuals and how they affect presentation delivery (negatively and positively) 2) to outline the basic slide design principles 		<p>Assignment 9 – Considering the points raised about slide design, evaluate and re-design your slides. Prepare 3–4 slides that you will present and explain.</p>
8	<p>Developing visual materials – (Explaining Visual Materials/Slides)</p> <ol style="list-style-type: none"> 1) to teach students how to introduce visual materials, how to define parameters and explain what the critical aspects of presenting visuals are 2) to assess what the students learned and applied to their own work from the lesson on design principles 3) to continue to stimulate group participation in determining presentation best practices 	<p>Task 6 – Students present example slides, explaining where and why they made changes. This is followed by group feedback.</p>	<p>Assignment 10 – Finalize your methodology presentation. Stick to the time limit and be ready to answer questions on keywords, technical terms and other possible methodological approaches. Prepare extra slides for this purpose.</p>
9 & 10	<p>Presentation Performance – Methodology</p> <ol style="list-style-type: none"> 1) to assess student performances during their second major research presentation. (Physical skills should be fully developed, structure and organization should be strong and slides improved.) 2) to offer targeted criticism and advice to students 3) to assess student ability to respond to questions about their work 4) to continue to stimulate group participation in determining presentation best practices 	<p>Task 7 – Students present their introduction, background and methodology. Presentations will be 6–7 minutes in total. Students will use good physical skills, make 2 transitions and show well-organized and coherent slides.</p>	<p>Assignment 11 – Prepare answers (and slides where useful) to answer any questions that you could not answer. Then start working on your experiments and results.</p>
11	<p>Dealing with questions – (Recognizing Question and Comment Types)</p> <ol style="list-style-type: none"> 1) to negate the fear of Q&A by teaching how to plan and prepare for it 2) to teach students how to recognize different kinds of questions by carefully listening for question-type markers 		<p>Assignment 12 –Continue preparation of your experiments and results presentation. Prepare answers for possible questions, and slides for this purpose if necessary.</p>

12	<p>Dealing with questions – (Responding to Questions and Comments)</p> <ol style="list-style-type: none"> 1) to give students all the information they need to be able to respond appropriately to questions and comments 2) to teach strategies for coping with difficulties in understanding and answering questions 		<p>Assignment 13 –Finalize for your experiments and results presentation. Be ready to stick to the time you set and to answer questions.</p>
13 & 14	<p>Presentation Performance – (Recognizing Question and Comment Types)</p> <ol style="list-style-type: none"> 1) to assess student performance during their third major research presentation 2) to offer targeted criticism and advice to students 3) to assess application of instruction on how to answer questions 4) to continue to stimulate group participation in determining presentation best practice 	<p>Task 8 – Students present their experiments and results. Presentations will be 6–7 minutes in total. Students will use good physical skills, make 2 transitions and show well-organized and coherent slides.</p>	<p>Assignment 14 –Put together the full scenario for your final presentation. Memorize it and time yourself as you practise.</p>
15	<p>Structure & Organization – (Guiding the Audience 3 – Summary & Conclusion)</p> <ol style="list-style-type: none"> 1) to teach students how to conclude their presentations 2) to briefly review all of the presentation techniques taught throughout the course and help students with any problems 3) to offer advice on how to prepare for the final presentation 		<p>Assignment 15 – Rehearse the full scenario for your final presentation and answers to likely questions.</p>
16	<p>Final Presentation–</p> <ol style="list-style-type: none"> 1) to assess students’ final presentation performances according to whether they have incorporated the elements essential for an effective presentation that were taught on the course. 	<p>Task 9 – Students make final presentations. These will be 10 minutes in total length with 5 minutes of Q&A. Students will demonstrate good physical skills, organization and structure, show organized and coherent slides and demonstrate an ability to handle questions.</p>	

[01] Orientation (Modes of Communication and Effective Presentations)

Overview

You make a presentation in the first place to get your ideas across. You want people to understand the research you have been doing or perhaps some kind of theoretical approach you have been developing. A university education is not simply the passive absorption of knowledge. Through research reports, short assignments and presentations you are obliged to show your understanding of a topic. Instructors set presentations specifically to assess your abilities in this regard, and it is highly likely that a successful presentation will push your course grade upwards as much as a poor one will mean the reverse.

Presentations may not have always been integral to the completion of one's degree, but they are very much so these days. Increasingly, instructors expect students to be able to deliver presentations and create slides. Consequently, making an effective presentation is extremely important. Obviously, good research and sound content is at the heart of any presentation, but demonstrating them clearly is another matter worth studying so that you can do it well.

Watch any effective presentation* and you will come to the conclusion that the best presentations are a combination of speech, physical skills and visual materials, with the key being an understanding on the part of the presenter of when to focus the attention of the audience on each of them together or individually. Speech, physical skills and visual materials constitute different modes of communication.

Typically, we want the audience focused on the speaker at times when the most important information is being delivered. The speaker is the authority on the material and should be the focus when it is being introduced and conclusions about it made. Good visuals can display (if constructed and utilized properly) processes, data and other complex technical information in a more effective way for the audience than by speech alone. Another effective visual aid, handouts (or abstracts in the Ryudai context), can be used during the presentation to help clarify the audience's understanding or referred to as a way of getting more information after the presentation has finished. In planning a presentation, thought should be given to when the audience's attention is switched from speaker to slides (or handout) and vice-versa. Your presentation plan should factor in these considerations.

***Examples of effective presentations:**

- 1) Any Macworld presentation (e.g. iPhone or iPad) by Steve Jobs & Co. These combine excellent physical presentation skills with well-designed and effective visuals.
- 2) Al Gore's environment-related movie 'An Inconvenient Truth' (2006). Clearly, most people cannot afford such lavish equipment and technical backup, but Gore's demonstrates excellent physical skills and includes well-designed and effective visuals.
- 3) A selection from the most successful presentations given by former engineering students on the course.

Teaching notes

- 1) Explain the specific course objectives and how the grading system fits in with these.
- 2) Define the nature of engineering presentations (length of presentation and Q&A, basic structure etc.) and how the course will guide them through the process.
- 3) If there is little time to show examples of effective presentations, or presentation techniques, students could be directed to online sources.

*In-class Practice Task 1 – Students will stand up in front of the class and make a self-introduction. They will say as much as they can about themselves (4 or five things). Encourage other students to ask questions.

*Homework Assignment 1 – Students will bring one piece of A4 with their name, lab, research presentation title and a 1 or 2-sentence summary of their contents (no more than two sentences) to the next class.

*Supplemental Materials 1 – “Important English” (In Appendix or Download from course site)

Such instruction may be necessary in order to keep using English as far as possible in class. Get students to start thinking in English and using these expressions.

*Supplemental Materials 2 – “Talking About Yourself” and “Asking Others for Information” (In Appendix or Download from course site)

This is useful for general English purposes to extend self-introductions if conversation opportunities present themselves.

[02] Physical Skills 1 – Eye Contact and Posture)

Overview

A presentation is not simply about what we say as we are not simply disembodied voices. Our bodies send messages as we speak and these may distract or confuse our audience or even conflict with our verbal message if we do not first take them into account. In a presentation we are looking for the physical and verbal input to compliment each other. Although physical skills might seem fairly obvious they are a crucial initial consideration when attempting to make yourself understood, particularly important when you must address your audience in a foreign language. The first of the physical skills to concern us is eye contact.

Eye Contact

A conversation without eye contact between participants is quite strange, perhaps even disconcerting. Try it in class. Most people agree that it feels unnatural. This is because while conversation may technically be ‘the verbal exchange of ideas’, the visual information we receive as a result of making eye contact is critical to our comprehension of those spoken words. We can assess mood, pick up on speaker’s enthusiasm or boredom, quickly detect insincerity or something underlying or unspoken. In reverse, the speaker can judge quickly how the listener is affected by what is said, be they surprised, angry, sad, or perhaps confused.

Although presentations are not conversations (except for the Q&A session at the end when members of the audience comment and ask questions or engage in debate with the speaker), making eye contact with the audience sometimes en masse and, at other times with certain members of the audience individually, is nonetheless important. Especially at the beginning of a presentation, you need to make eye contact with the audience as a whole to declare your intent to communicate information. Your eyes are saying: “I have something to tell you”, “I want you to listen”, and “Please participate with me in this presentation.” Without eye contact you do not engage the audience and, as a result, they will likely pay you far less attention.

You also need to engage in eye contact to ensure that the audience is following your message throughout your speech. If you notice a few bemused expressions you might need to back up and explain something more effectively. Either way, you need to monitor the audience. You cannot do this by reading directly from a hand-held scenario or your PowerPoint notes. Making eye contact with your audience is your main means of gaining feedback and a significant tool in grabbing and maintaining their attention. You cannot hope to engage people if your eyes are elsewhere.

***Tip 1 – To make eye contact with the whole audience (or as many people as possible) to focus attention on you at the beginning of your presentation or when making important points, direct your gaze to people’s foreheads or**

hairlines if you cannot look directly into everyone's eyes. It gives the impression of making full eye contact. Try it.

Posture

Adopting a good posture is a way of showing the audience that you have respect for the occasion and are in control both of your materials and your presentation space. Even if you are the authority on your topic, fully prepared for your presentation and speaking in your native language it is still difficult to feel confident when you are faced with an audience. Appropriate posture alone can help you to adjust to the situation and instill a feeling of strength and confidence even before you gain reassurance of your abilities as you proceed through your presentation. This physical boost is very helpful if you are suffering from the added stress of having to make a presentation in a second language.

An ideal posture falls at a midway point between being too relaxed or too stiff. An overly relaxed posture is not appropriate for a formal presentation and may give the impression that you do not take the situation seriously even if it is unintentional and/or the result of nervousness. This is not good when the room is filled with professors and you are hoping to get accepted for the Master's course. Being overly stiff clearly shows nervousness, which at the very least will distract your audience and may even shake their faith in you.

You need to stand upright in a comfortable position (one that you can easily maintain for a few minutes) and (if not loaded up with microphone, remote controls or pointers) with your hands by your side or crossed and/or clasped in front of you (hands clasped behind looks like an 'at-ease' military posture). How to achieve the most comfortable posture and what to do with your hands will logically be different for each person and certainly for men and women. Just find something that works for you. Ask a colleague how it looks. Your instructor will also give you feedback.

Additionally, and this can be a problem for some people, be aware of nervous ticks or seemingly uncontrollable movements that will greatly affect your posture. Fairly common ones include wandering hands, body swaying or other jittery leg or head movements. Some people also have non-posture-related ticks such as nervous coughs or producing other noises.

***Tip 2 – Make your posture comfortable but formal.**

Teaching notes

1) Briefly demonstrate as well as explain how the physical message that accompanies the verbal message can confirm or contradict what we are saying. Then start with the detailed consideration of the physical aspect of presentations, starting with eye contact.

***In-class Practice Task 2 – To get students used to making eye contact, have each of them come to the front of class and make eye contact with each person in the class for 2–3 seconds. You can have them do this silently or**

counting out loud the number of seconds while they are focusing on a particular student. Students will be very uncomfortable doing this and will try to complete the exercise very quickly. Don't let them!

2) To illustrate the importance of posture, demonstrate a few of the bad examples of overly relaxed or stiff postures.¹ Discuss with the students what they think is most appropriate.

*In-class Practice Task 3 – Have the students stand up and find a comfortable posture. Ask other students to comment.

*In-class Practice Task 4 – Students come to the front of the class and present their titles and topics. Presentations will be short, but ask questions to get them to think about how to explain things. Focus on keywords or technical terms. Can they explain them in English? Check pronunciation of keywords.

Students need to adopt a good posture during this exercise and make eye contact (ask the audience whether eye contact was made or not). These skills are expected in all subsequent presentation exercises.

*Homework Assignment 2 – The student will locate an academic journal article written (if possible) by a native speaker of English in their specific area of research (or something as close as possible). Perhaps they could consult with their professor for assistance. Instruct them to bring this to the next class.

If there is a need for guidance in Japanese on these two physical skills and why they are necessary introduce the students to the text below.

On eye contact (目を合わせる) see:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 84-85

On posture (姿勢) see:

アカデミック・プレゼンテーション, Pages 102-104

¹ See, for example: *Speaking of Speech* (Pages 10-11).

[03] Physical Skills 2 – Gestures and Voice

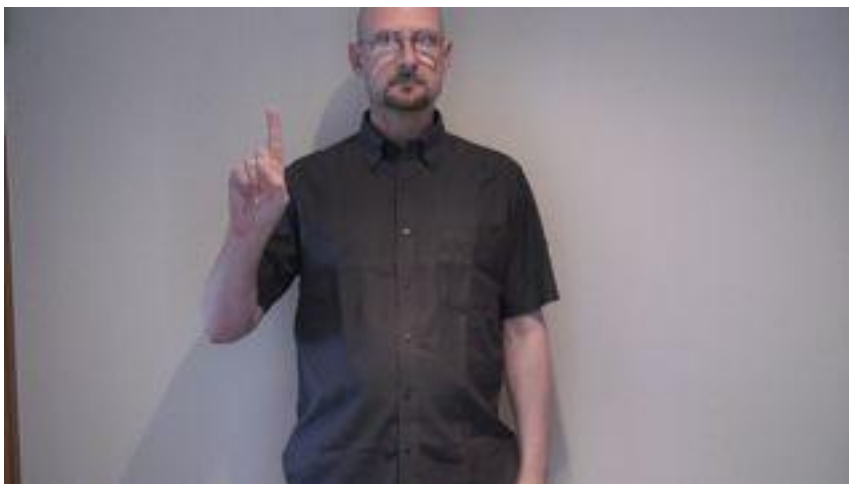
Overview

Gestures²

There is no doubt that gestures can make a presentation more interesting by supporting, complementing and/or adding emphasis to what is being spoken in a visually powerful way. The primary concern in an academic context is that this power is not overplayed. We are not signaling with semaphore or enthusiastically selling cars at Honest John's Used Motors. Gestures should be kept to a dignified minimum and used only when there is a clear purpose in doing so. Much will depend on the nature of the presentation but in the main it is possible to utilize the following gestures:

1) Sequential gestures to guide the audience:

When you lay out your presentation overview you can support this with numerical gestures. For example: “in my **first** section I'd like to discuss my background and objectives, in my **second** section I'll explain my research methodology, and in the **third** section I will cover my experiments and results”. These can also be applied to the past tense overview you might provide in your conclusion. Simple numerical gestures can also be used for stages and steps.



“First, I will discuss my background and objectives”

² A broad range of possible gestures can be found in *Speaking of Speech* (2009) from pages 18–21, although many of these (most of the gestures for emphasis and illustration) are not appropriate for academic presentations.

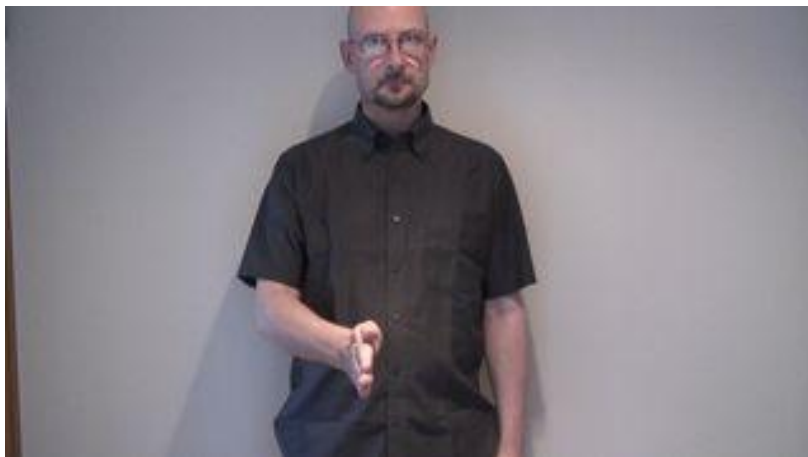


“Fourth, I will focus on my experiments and results”

Another way is to use more specific gestures to illustrate steps or stages, as in an experimental process (for example, the introduction of mist into a chamber and the monitoring of its behavior in stages). Mechanical systems engineering students typically make good use of diagrams and focusing techniques to describe processes. You could potentially use gestures to provide an overview of the process stages before going into more detail in your slides.



“The first step is…”



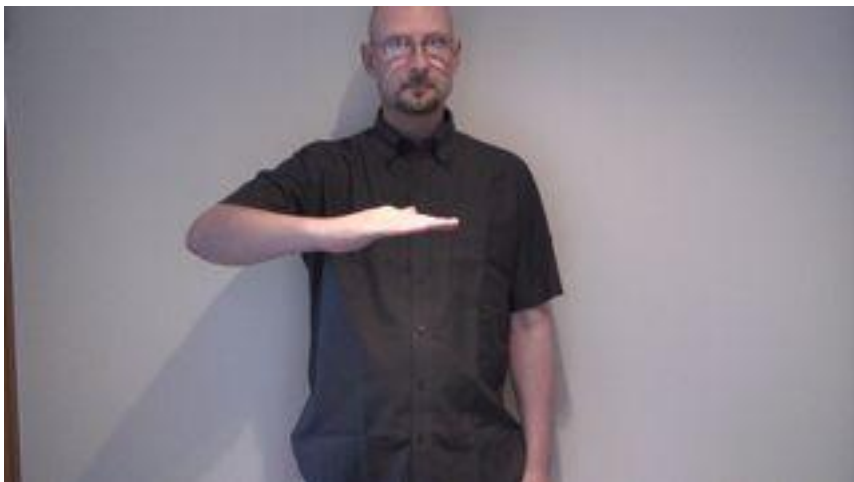
“The second step is…”



“Lastly…”



“The first step is…”



“The second step is…”



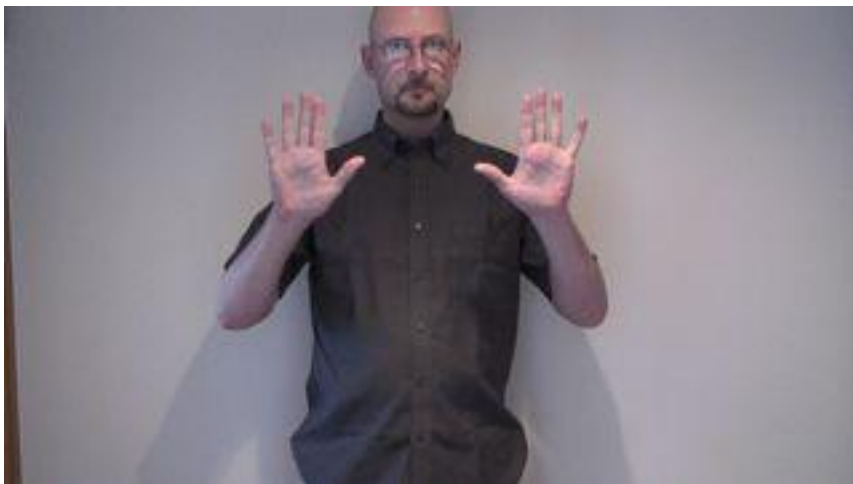
“Lastly...”

2) Numerical gestures for added emphasis:

You can support any spoken number with gestures.



“Seven”



“Ten”

3) Gestures for comparing A and B and showing increases, decreases or balance:

In academic presentations comparisons are common: last year's data compared with 2010, previous research compared with your new research, results for one method versus another, or for one geographical area in contrast with another. Increase and decrease gestures are probably not required if your visuals are effective in presenting the data but may be useful in your conclusion when the main findings are restated.



“Last year's figures were lower...”



“Last year's figures were higher...”



“They were equal”



“On the one hand...”



“On the other...”

*Tip 1 – Do not be excessive with your gestures. For an academic presentation keep things simple. Sequential gestures are good, such as “first, second, third.”

*Tip 2 – Do not be vague with your gestures. This is just hand-waving.

Voice Inflection and Projection

Voice inflection is the most difficult physical skill for second language learners at this level to grasp because they have to isolate which part of the sentence to emphasize and understand what is most important while not necessarily understanding a lot of the language. It is possible to provide guidance in terms of what or when to place emphasis on in any given sentence but excellent results should not be expected.

1) The Three Main Ways of Inflecting the Voice: Stressing, Stretching and Pausing

The ability to add voice inflection is heavily dependent on one's understanding of the appropriate location(s) for inflection in any given sentence. Once you have isolated these points it is possible to add inflection in a number of ways. We can do this by adding stress, by stretching a word or by pausing. Each method serves to isolate and add emphasis at a particular point. Understanding where and when to add inflection is more important than the precise method. For example:

a) **NUMBERS** “In Okinawa Prefecture there has been a 500% increase in the adoption of broadband since 2007”.

Our focus in this sentence is on the amount of increase, hence we add special emphasis to the 500%.

b) **NEGATIVES** “Since 2008, there has been no increase in the amount of harmful emissions”.

Our focus here is on the absence of an increase, hence the emphasis on no.

c) **COMPARISON** “Therefore, the method adopted in my research has proven far more effective than previous works”.

Our focus in this sentence is on the extent to which the newer research improves upon earlier work, hence the emphasis on far more effective.

2) Compensating for lack of voice of inflection – varying the choice of verbs in presentation scripts (scenarios)

Voice inflection helps convey meaning and also keep the audience interested as they listen out for the next piece of important information. As it can be very difficult for non-native speakers, who may speak in more of a monotone (particularly when nervous and faced with the burden of recalling content information and how to express that in a foreign language), another way to hold interest is to vary the verbs used. For example, when organizing your presentation script try to make sure that you vary the verbs used. In an introduction section, for example, don't say:

“in my first section I'd like to tell you about my background and objectives, in my second section I'll tell you about my research methodology, and in the third section I will tell you about my experiments and results”.

Think about using a wider range of verbs such as “discuss”, “explain”, “focus on”, “lay out”, “talk about”, “cover”, “show you”, etc. You might end up with something like this:

“in my first section I will explain my background and objectives, in my second section I’ ll discuss my research methodology, and in the third section I will talk about my experiments and results”.

3) Projecting your voice

It goes without saying that you should speak slowly and clearly, giving yourself time to think and the audience time to listen and the chance to understand, however, even if you manage this, if you do not project your voice no-one will hear. Although your practice classes are mostly in small rooms, your final presentation will be in a large room or main hall. You will need to make yourself heard with or without a microphone. Speak at the audience and get used to comfortably raising your voice.

- a) You should always remember to begin your presentation with your voice at about 150% of its normal level. This will grab everybody’ s attention quickly and help you to start assertively. Depending on the equipment and size of room you may have to continue at a higher volume than usual. Don’ t be afraid to ask the audience: “Can everybody hear me?”
- b) Do not read from a script, laptop computer or main screen. This effectively means that you will not be speaking in the direction of the audience, therefore making it harder for them to hear you.

*Tip 3 – Although you should start your presentation strongly by speaking at about 150% the level of your normal speaking voice and must not let this drop too much as you continue, for some people a physical manifestation of nervousness is a pronounced drop in volume, and they may find it impossible to keep the volume up. If this is your problem, you will benefit from using a microphone.

Teaching notes

Continue to highlight the four main physical components and discuss what an impact they can have. Continue with gestures and voice. Keep gestures to the minimum, just concentrate on those you might need in an academic presentation.

Gestures

Show the students examples of inappropriate gestures as well as the most useful ones. If you have time, ask the students why some gestures are appropriate while others are not. Emphasize subtlety and moderation.

*In-class Practice Task 4– use a few of the gesture exercises in “Speaking of Speech” (Pages 8, 23–24) to show the power of non-verbal

communication. A range of appropriate and inappropriate gestures can be found in [“Speaking of Speech” \(Pages 19–21\)](#).

Voice

* In-class Practice Task 5 – The use of stretching, stressing and pausing in a number of contexts is covered in [“Speaking of Speech” \(2009\) pages 28–31](#) ****[audio CD required]**, although many examples are too generic and not appropriate for academic engineering presentations (because students are not selling or attempting to persuade the teaching staff in the audience, per se, but rather providing information on their research in a logical and effective manner).

For the very best results in instructing students about voice inflection, students will need very specific guidance on the application of these principles in their own presentation scripts (scenarios). In previous years, instructors have made mp3 recordings of the student’s own script approximately a week prior to the final presentation. Those students who studied hard with this resource in the remaining time made enormous strides in terms of voice inflection. However, this is very labor-intensive for the instructor.

*Homework Assignment 3 – Students read through the abstract and introduction section of their academic journal article and use a highlighter pen to mark the key terms and concepts that also feature in their work. If they understand easily enough they could continue doing this further into methodologies and/or experimental approaches. Students might find it useful to highlight linguistic items too, e.g. useful phrases and vocabulary. They must prepare to explain the key terms and concepts simply and effectively in English. The instructor will focus on the highlighted terms in terms of pronunciation and the speaker’s ability to define them concisely.

If there is a need for guidance in Japanese on these physical skills and why they are necessary introduce the students to the texts below.

On aspects of voice level, pace and intonation (発音) see:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 88–93.

On aspects of body language and gestures (ボディー・ランゲージとジェスチャー) see:

アカデミック・プレゼンテーション, Pages 89-94.

[04] Structure & Organization (Guiding the Audience 1 – Structure, Time & Introduction)

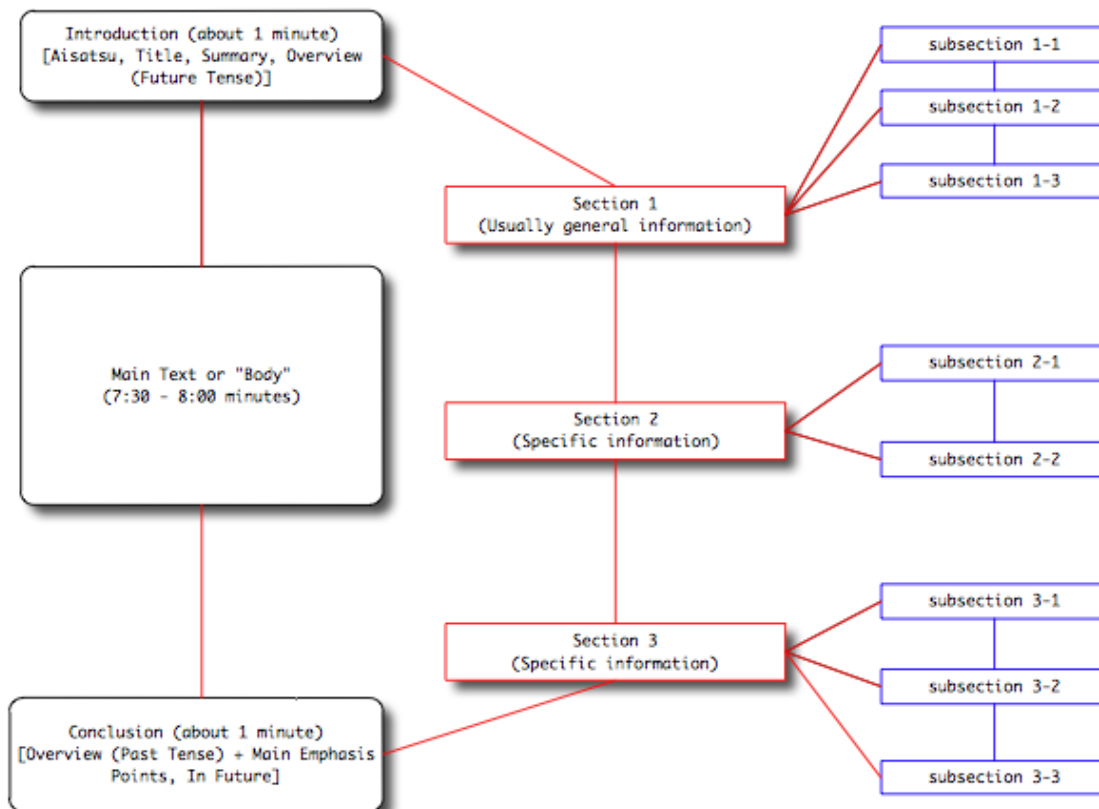
Overview

Structure and Organization

1) The need for good organization

Organization is key in helping the audience understand and, make no mistake, they will need help with your presentation. The vast majority of the audience may be engineering specialists but it is unlikely that they will be specialists in your area. Typically, only your professor and lab colleagues will have a solid understanding of your research.

It is important to think carefully about the number of sections and how long each section will be. A common presentation structure (the number of sections in the main text may vary, and the number of subsections certainly will vary from person to person) is shown in the figure below. It resembles the basic structure of novels, academic textbooks, movies, or even musical pieces, in that it has a beginning, a middle section and an end. The audience expects such a structure.



One reason for good organization is because of a practical problem that afflicts all presenters: the time limit! You need to use as much time as possible to explain your research but do not exceed it. Too short a presentation means that either you have not

really prepared enough information to satisfy an audience of your engineering peers or that you have read through it far too quickly. Too long a presentation shows both that you did not prepare well enough and that you are not respecting the time limit that everybody else is subject to. These do not serve to make a good impression on the gathered professors. The typical time within the engineering faculty at Ryudai (shown in the previous diagram) is 10 minutes for the presentation plus 5 minutes of Q&A.

Clearly, you are not going to be able to condense your whole graduation thesis into 10 minutes. But that is not the exercise. You are expected to be able to understand and pick out the most important information concerning your research topic and method and slot it all into a 10-minute presentation. This is the discipline. Only good organization and an awareness of how little time you actually have will allow you to achieve it.

2) Guiding the audience with effective signposting

If good organization is vital, so too is explaining your structure to the audience so that they know what to expect and can follow your presentation. Imagine that the audience members are driving their cars through your presentation and it is up to you to provide road signs so that they can successfully navigate their way through the information you are presenting.

You must give the same kind of detailed information to the audience. We use an introduction to explain our structure and signpost the contents using an overview (gaiyou 概要). This provides the audience with a brief description of what to expect. We chart our progress through the presentation with the use of transitions to mark the end of one main section and the start of another consistent with the overview we gave, and sequencers to link the smaller subsections. This allows the audience to follow. Finally, we use a conclusion to emphasize the main aspects of the research and to summarize the main findings. Without these features your presentation may end up as a confusing lump of information that nobody can penetrate.

The Introduction

1) What purpose does the introduction serve?

The first organizational element in your presentation is the introduction. Content-wise, your main presentation sections are the most critical parts of your presentation, but your introduction provides the important structural information that will enable your audience to follow you through to your research conclusions.

The introduction is also where the audience gets its first impression of you, the presenter and the specialist in your area. Although you will not be able to banish nerves entirely, you need to begin strongly. You need to convey a measure of academic authority in, and enthusiasm for, your chosen area. You must show that you take this presentation seriously and have prepared for it, and demonstrate to the audience that you came to communicate your ideas to them rather than mumble to yourself. The impression you

make on the audience in these regards will determine the way that they relate to your presentation.

2) What your introduction needs to contain

It should ideally contain the following main elements:

Greetings:

“Good Morning/Good Afternoon/Good Evening”.

“My name is _____”.

“I’m a member of _____ lab, the Department of _____”.

Title:

“The title of my presentation today is _____”.

Brief Summary of topic:

“My research deals with the issue of/the topic of/the problem of _____”.

Overview:

“My presentation is divided into 3 sections.

In the first section, ……

In the second section, ……

In the third section, ……

Finally, I’ll sum everything up in my conclusion”

*Tip 1 – Saying “Hello” or “Hi” to the audience does not allow them a realistic response whereas “Good morning” does. It can be helpful confidence-wise to have the audience hit you with a nice “Good morning” in response to your nervous call.

Teaching notes

Explain the need for good organization to the students and discuss some of the problems they will face. You can discuss various methods they might employ to organize their thoughts, from putting together a basic outline and progressively filling in the gaps, to mind-mapping ideas or storyboarding (like one would for a movie). Perhaps a combination might work.

Most engineering students on this course, however, already have a lot of information organized in logical fashion as they construct their graduation thesis. Right now they think that 10 minutes is a long time for a presentation but it is, in fact, probably not

enough time for the amount of research they have. Very few presentations run short. Most run over. Knowing what to put in and leave out is critical.

Show the presentation structure diagram and break it down into sections and timing. Encourage them to begin thinking about how their content would fit in. Perhaps 4 main sections would be more appropriate given their contents, but how will they apportion time to each section? Where can they save time in order to increase it elsewhere in the presentation?

Introduce the homework assignment which is designed precisely to get them thinking in this way. ***They will present these structures in class next week

*Homework Assignment 4 – Draw or make (on a computer) a graphical representation of your presentation and insert your content sections. Also mark how much time you intend to devote to each section. Please bring a copy of this to class.

Use whatever metaphors are required to explain the importance of guiding the audience. Signposting has consistently proved effective but other methods may work as well or better.

*Homework Assignment 5 – Prepare your introduction organized according to the structure presented in class. Please make slides. You will stand up in front of the class and present this next week.

If there is a need for guidance in Japanese on good structure and organization and on various strategies to achieve this introduce the students to the text below.

On aspects of presentation organization (プレゼンテーションの構成) see:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 23-45.

[05] Structure & Organization (Guiding the Audience 2 – Transitions & Sequencers)

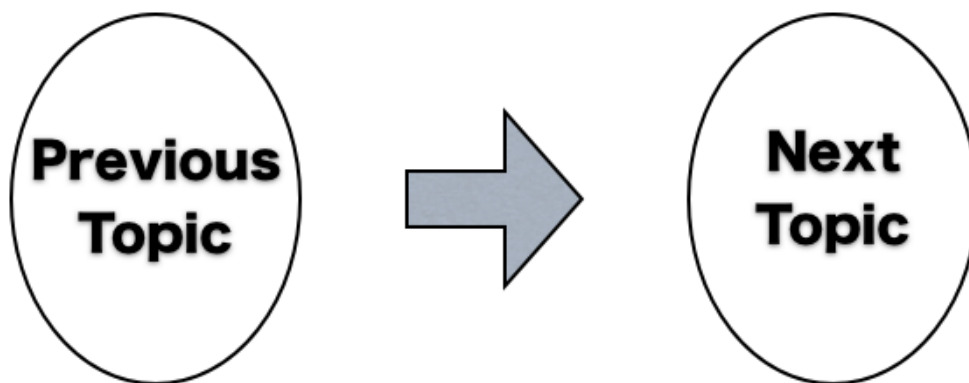
Overview

Transitions

Linking larger sections and subsections together in an effective way is critical for audience understanding. The audience expects a certain flow of information based on your overview. Do not forget that your presentation research is very complex and only really understood by your lab colleagues and professor. Failure to highlight and to differentiate between sections will make your presentation very confusing.

Transitions are required for your main sections:

intro>background
background>methodology
methodology>experiments and results
experiments and results>conclusion



A basic transition combines the end of one topic with the beginning of another, as in:

“I’ve finished discussing the background and objectives of my research. *I’d like to move on to* explain my methodological approach”.

“I have outlined my research methodology. *Next I want to tell you about* my experiments and results”.

Few more examples from presentations?

Just as with signposts, transitions are helping the audience to navigate through and stay in touch with your presentation.

Sequencers

Sequencers are simply the transitions within the main sections of your presentation. They join the pieces of information and are often single words, such as: first, next, then, after.

Few examples from presentations?

*Tip 1 – Try to vary your transition expressions between sections by changing the verbs. For example: “I’d like to move on to discuss/explain/tell you about/show you _____”.

Teaching notes

You will need to get across the importance of transitions. There are some very useful and simple transition and sequencer-related exercises in “Speaking of Speech” (Pages 79–83).

*Practical 4 – Students come to the front of the class and present their introductions. Presentations will be short, but we will ask questions to get them to think about how to explain things. Students need to try to adopt a good posture and make eye contact (you can ask the audience whether eye contact was made). Check pronunciation and keyword definitions (including acronyms).

*Homework Assignment 6 – Students will prepare the background and objectives section for their first major presentation next week in combination with the introduction (improved by feedback). They will use slides and employ a transition between the two sections. Be aware of the time the student sets and have them ready to answer questions on keywords and technical terms. They might usefully prepare extra slides to help with possible questions.

*Homework Assignment 7 – All students should start thinking about their methodology presentation in 3–4 weeks.

[06] Presentation Performance – Introduction and Background & Objectives

Overview

This is the first serious presentation of your research thus far. Targeted feedback from instructors in these sessions will help you improve weak areas if you apply it and make the necessary changes. The primary focus here is on physical skills and ensuring that these are well adopted, mainly because there is a need to move on swiftly to the more complex visual and organizational matters.

Teaching notes

Not being a specialist in engineering (as is likely), enlist the assistance of a professor (or graduate students) to ask a few tough(-ish) and direct questions and, if possible, get other students engaged in asking questions of the presenter, especially those related to keywords.

The reality of the situation is that the more good questions a student receives during practice sessions the more likely that that same student will be able to successfully negotiate the real Q&A session. Every question received in practice could potentially surface during the real presentation. As such, students should be encouraged to take on as homework the job of answering any question they could not adequately cope with in practice. Students should be encouraged to think about preparing extra slides for logical question topics, such as keywords, concepts and methodologies.

Given the shortage of time on the course these sessions must be professionally run. Timing should be organized and tight. It is amazing how easily you can lose 20–30 minutes. Equipment should be booked and set up in advance.

*In-class Practice Task 5 – Students come to the front of the class and present their introduction and background. Presentations will be no longer than 5 minutes in total (1:00–1:30 for the introduction and 2:00–3:00 for background). Students will demonstrate good posture and make eye contact. A transition will be used, as will slides.

Areas for Comment and/or Criticism

*Good posture should be noted and poor posture commented on, as with nervous ticks of any variety. Catching these early is best.

*Any gestures? It is unlikely that you will see anything other than numerical or sequential gestures here. Comment on the appearance of gestures and the absence at times when perhaps appropriate.

*Equipment use may prevent the use of gestures if the speaker needs to hold a microphone and/or pointer of some sort. Comment on stick waving or other distracting use of equipment.

*Eye contact should be assessed (Did he/she or didn't he/she?). Ask the student audience. Permanent eye contact with the audience is not required but regular eye contact is.

*Voice projection is vital here. Students must begin strongly and always be aware of the size of the room. If students continue to speak too quietly the use of a microphone is preferable.

*Pronunciation of keywords and concepts should be monitored.

*Timing is not critical right now, but if overly long it should be pointed out that 10 minutes is exactly that. Encourage students to time themselves before practice sessions in readiness for the real thing.

*General observations can be made on presentation slides: design, spelling, amount of space, etc, but don't go into too much detail. It is just interesting at this early juncture to see how the students organize slides since it is the next main topic.

*Did the presentation have a proper introduction? Was it fairly clear in organization or difficult to follow? Again, just general points here.

*Did the presenter use a transition? If not, they should be encouraged to do so.

*Overall, how was the information presented? Subjectively speaking, was it an effective first step?

*Pick up on really good aspects and explain how these are examples of best practice. Encourage all students to copy effective aspects and avoid common pitfalls. Ask the other students their opinions.

***Homework Assignment 8 – Students start solid preparation on the presentation of the methodology section.**

[07] Developing Visual Materials (Basic Aspects of Slide Design)³

****N.B. There may be a need at the start of class to devote time here to finish up introduction and background presentations from the preceding week. Try to leave half the class for theory.**

Overview

Making presentations can be very tough, requiring a basic capability in a broad range of skills. As well as the organizational and physical aspects that you need to try to master, you must also give consideration to visual material design and aesthetics. Visuals should be used sparingly and created to have the greatest effect. The objective of this lesson is to try to give you some practical guidance on how to do this.

For presentation design more broadly, but certainly for visual materials, you should bear the following interrelated ideas in mind:

STAY FOCUSED – You need to think about what it is specifically you want the audience to focus on and then organize text and visuals in your slides to achieve it. Microsoft's PowerPoint or Apple's Keynote are very powerful. If possible, take some time to study how to use these pieces of software to your advantage. Lynda.com offers video training guides in English to major software programs.⁴ Many training books are available in Japanese (some for free in the Ryudai library!).

DETERMINE NECESSITY – Keep your slides targeted towards this specific presentation. This is a 10-minute presentation based on your thesis. You don't need to put everything in. In fact, remove anything from your slides that does not serve a specific purpose in this presentation. Knowing what to leave out is as important as knowing what to put in.

BE CONCISE – Keep everything short and sweet (簡潔な). Limit the amount of text on screen (remember that the audience can read this faster than you can speak it). Don't use a second example to make the same point unless it is a key point and necessary for audience understanding. You don't have enough time to be staying too long in any one area.

³ In creating this section on slide design principles I found Jeff Van West's Microsoft PowerPoint training course entitled *Effective Presentations* (Released by Lynda.com on 3/10/2006) particularly useful.

<http://www.lynda.com/home/DisplayCourse.aspx?lpk2=192> (Retrieved on 1st July 2010)

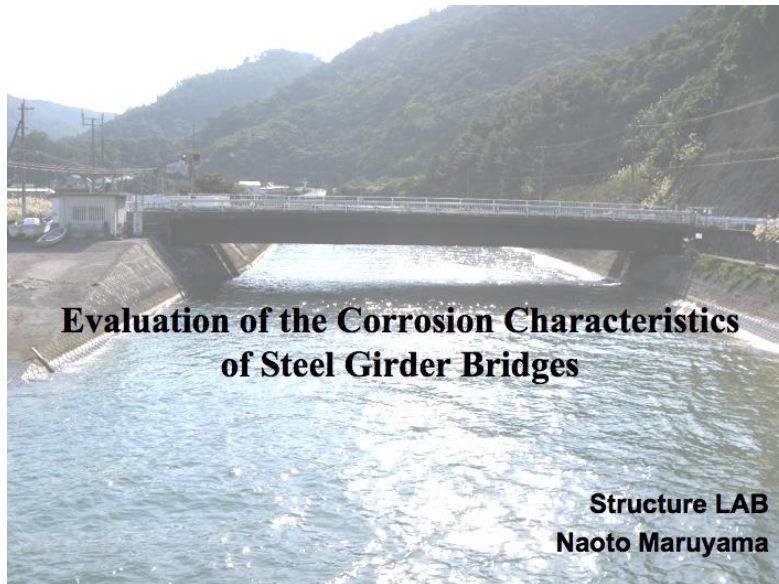
Graphic Secrets for Business Professionals, presented by Lesa Snider (Released by Lynda.com on 9/27/2007) was also of use.

<http://www.lynda.com/home/DisplayCourse.aspx?lpk2=425>

⁴ A listing of all available Lynda.com presentation-related training videos is available from the following URL:

<http://www.lynda.com/home/ViewCourses.aspx?lpk0=148> (Retrieved on 1st July 2010)

REAL WORLD APPLICATION – to understand the nature of your complex research often all the audience needs to follow along better is a sense of how it is applied in the real world. As such, think about how you can use photographs or other visuals to show this. Your research may relate to cell phones or computers, deal with structural weaknesses in bridges or focus on fuel efficiency for jet engines. Find some relevant photos to help the audience to connect with complex ideas. Use these images early on in your slides (even your first slide). See below:



After you have considered your slide contents in the context of the broad principles above please be aware of the following points related to slide design and layout:

Alignment

Unless you have a purpose in doing otherwise, try to make sure that your content is aligned and as far as possible consistent across slides. Humans naturally and quickly detect asymmetry (非对称) and one's eyes are instantly drawn to it (think about how quickly you spot a misaligned poster or painting). If an audience is confused about the relationship of and between images and text on your slides as a result of your alignment choices this is taking them away from concentrating on what you are trying to communicate.



Aligned Shapes



Misaligned Shapes

The Use of Space

One of the biggest problems with slides, and academic conference (学会) presenters do this probably as much as undergraduate students, is an excess of information. The presenter seems to think that the more information on each slide the better. This is wrong because it ignores the human eye's need for empty space on a slide. You need to leave breathing room (十分なスペース). Don't be afraid to leave space on your slides between text and images. It is easier for the audience to view and, serves then to highlight the importance of what remains. The audience looks to the presenter to select and focus on what is most important rather than leave them to struggle to extract what is relevant.

Color

The appropriate use of color can add greatly to the impact of your slides. You can use color for emotional impact, as a focusing tool, or just stick with black and white for the stark contrast. Just as when you get up in the morning and decide what to wear (unless your own style is utter randomness), you have to think about what goes with what and how particular colors suit your mood at that moment. Slides are no different in this regard. Think about what suits the material and about which colors match.

What is different about colors in a slide context is that you have to consider how things will look on a big screen (it is never identical to your laptop's display, unfortunately). Check to make sure that text is readable on the chosen color background, and definitely check how your slides look on the big screen before your final presentation. Always think about consistency across slides. Pick your background and the colors you want to use for whatever purposes and stick with them. Don't go crazy. Badly chosen colors can put the audience off as quickly as good choices can draw them in.

Fonts

A simple rule to remember in picking fonts is that Sans serif fonts look much better for short lines or paragraphs on presentation slides projected onto large screens than Serif fonts that are better for reading lengthier texts such as books, newspapers or journal articles. Serif fonts are designed for continuity, flowing from one letter to another and one word to another to another. Examples of common Sans Serif fonts are as follows (the ones below are standard on both Windows and/or Apple operating systems):

Arial

Trebuchet MS

Verdana

Helvetica

Gil Sans

Lucida Grande

Charts and Tables

We will get to the business of how to introduce and explain tables and charts shortly. For now, please remember just one critical thing: In using tables or charts your job is not to show what the numbers are *but what the numbers mean*. The audience will expect you to be able to explain the relationship(s) between data rather than present a bunch of figures and let them sort it out. Summarize the most important findings on the slide above or beside the data. Cut to the main point. Focus on the critical details to get across during your presentation and suggest perhaps that the audience read more at their leisure in your handout (abstract).

Also, look at ways of presenting data in a way that the audience can best understand it. This might mean picking a different type of chart over another or it might just mean considering and implementing ways to highlight or focus the audience's attention in on particular parts of charts or tables. And how about the occasional use of 3D rather than traditional flat 2D?

Using images

Images can convey both information and emotion. They can complement what you say or add friction by contrasting with it. Napoleon (I think?) put it very nicely by saying that “a picture paints a thousand words [百聞は一見にしかず].” Images can help the audience to better understand at least some of what you are discussing and in some cases images can express something more economically than through words. Of course, it will depend on how you present and frame them. Assess whether color, grayscale, or black and white is most appropriate in your context. Again, consistency is key throughout your presentation.

As suggested before, you should take time out to study image-use, focusing and/or adjustment techniques in Microsoft PowerPoint or Apple Keynote.⁵

⁵ A listing of all available Lynda.com presentation-related training videos is available from the following URL: <http://www.lynda.com/home/ViewCourses.aspx?pk0=148> (Retrieved on 1st July 2010)

Bullet Points

Remember the different modes of communication? If your audience is looking at the screen all the time they are not looking at you. If all your main points are presented onscreen your audience can read them faster than you can deliver them. Think about times when you can remove the bullet points and have the audience just focus on you. Yes, it's scary, but you are the authority on your research. Think about speaking rather than showing sometimes.

Better Backgrounds

You may need to think beyond default Microsoft PowerPoint or Apple Keynote backgrounds to find an appropriate one for your research. There's a lot of free stuff to download.

Transitions

Microsoft PowerPoint and Apple Keynote have a large range of very cool slide-to-slide transitions. You should settle on one style unless it is your intention to distract the audience from your speech.

Consistency

Just as you should decide on one style for slide-to-slide transitions, you should bear consistency in mind for fonts and text sizes, colors, backgrounds, transitions and almost every other design element. The rule of consistency is better adhered to as it gives slides much greater visual impact, unless you have a good reason to distract the audience by ignoring it. Audiences will notice the lack of it and wonder why.

***Tip 1 – Be consistent in design and avoid asymmetry.**

***Tip 2 – Consider the audience's perspective: Are your slides effective? Ask colleagues for feedback.**

Teaching notes

You will need to cover all of the main areas outlined above. You can develop your own visual materials to accompany these points or, for greater ease, access the Jeff Van West training course entitled Effective Presentations (Released on 3/10/2006)⁶ or something similar.

***Homework Assignment 9 – Ask students to think about the points raised in this lesson and go away and think about their own slides and whether or not they need changing. They should prepare for the next class 3–4 slides to present and explain.**

⁶ <http://www.lynda.com/home/DisplayCourse.aspx?pk2=192> (Retrieved on 1st July 2010)

For some general visual materials guidance in Japanese you might want to introduce the students to the following books:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 46-68.

If there is a need for guidance in Japanese on structuring, organizing and introducing slides in a technical scientific context in English you can introduce the students to one or both of the texts below:

廣岡慶彦著, 理科系のための入門英語プレゼンテーション (東京: 朝倉書店, 2003.4) ISBN 4-25410-184-8. Pages 14-57.

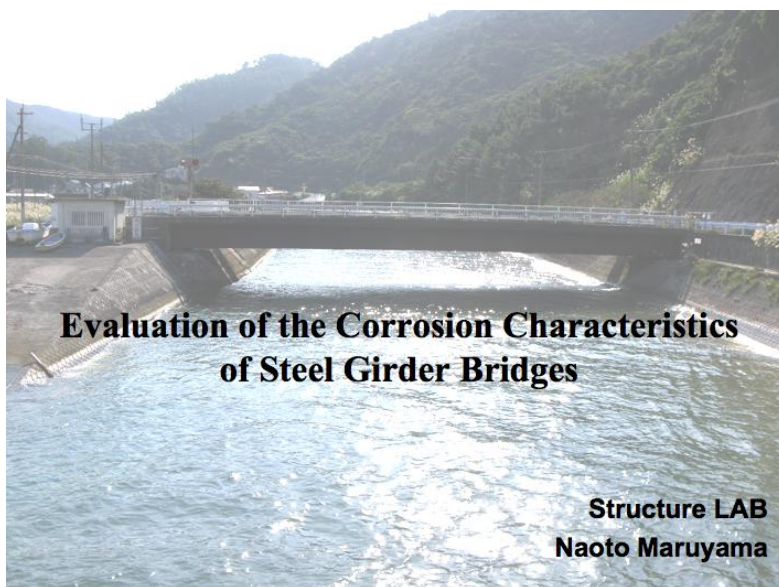
廣岡慶彦著, 理科系のための実戦英語プレゼンテーション (東京: 朝倉書店, 2002.4) ISBN 4-25410-182-1. Pages 9-74.

[08] Developing Visual Materials (Explaining Slides)

Overview

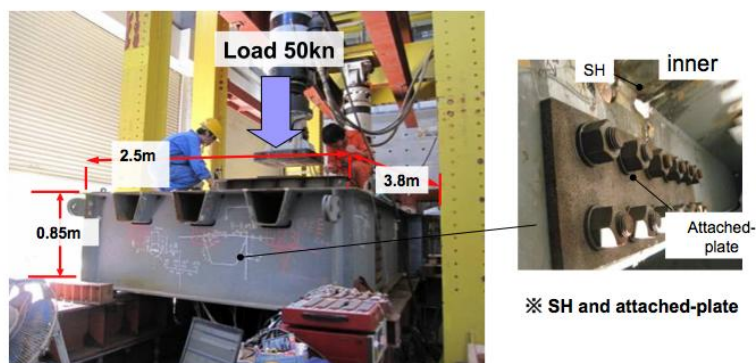
There is a wide range of visual and/or audio-visual materials that can be used in a presentation. These would include photographs, diagrams, tables, bar and line graphs, flow charts, bullet charts or video footage of experiments. What kind of visual materials are most appropriate to include in your slides will probably be decided in discussions with your professor. You will more than likely combine several types of visuals in your presentation. Consider some of the following typical examples:

Photographs



2. Experimental Methodology :Static load test

(1) Real size specimens

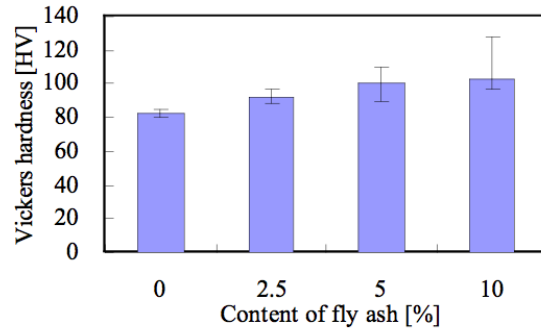


**Designed to have the same stress conditions as an
actual bridge**

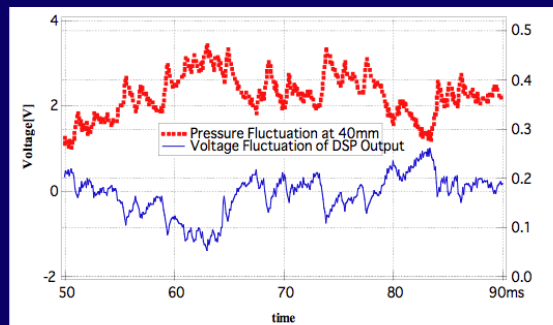
3

Charts

Comparison between Fly Ash Content and Vickers Hardness



DSP Working Check



(b) $p_r/p_b=1.70$

Fig. Comparison of pressure fluctuation with voltage fluctuation

Experimental Results

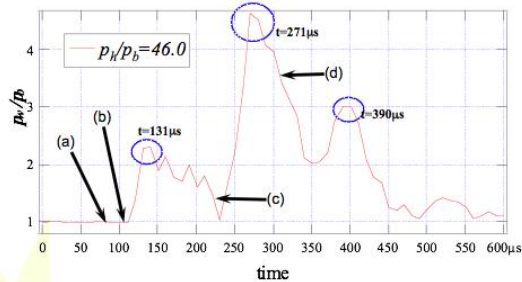
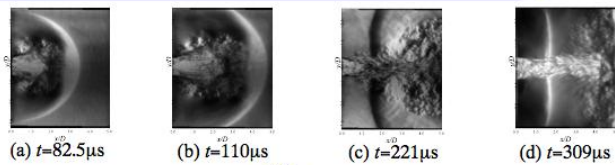
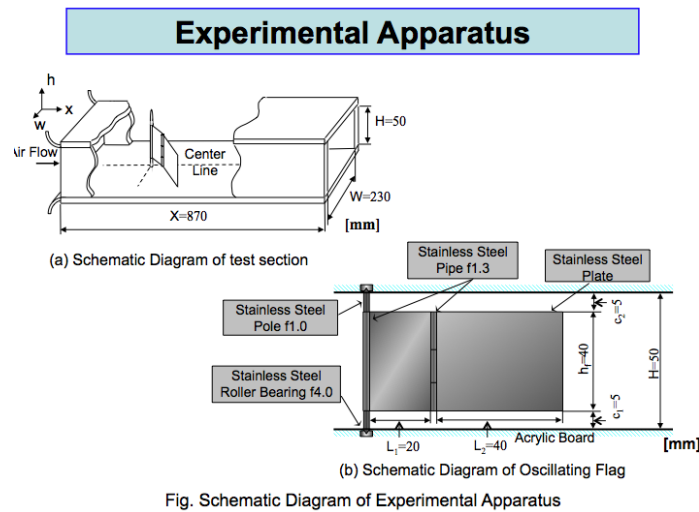
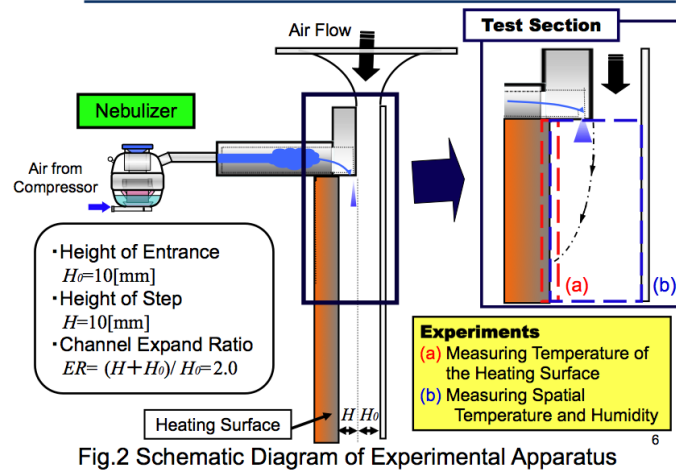


Fig.8 Wall static pressure variation for L/D=5.0

Diagrams



Experimental Apparatus and Procedure



Bullet Points

Contents

- **Background and Objects:**
catastrophic forgetting, rebirth neuron, sparse encoding
- **Methodology:**
the sparsely encoded autoassociative memory model with replacing units
- **Computer Simulation Results:**
searching for the optimal number of replacing units to maximize the memory capacity and the information capacity of the network



Whatever the type of visual you employ your job as presenter is first to introduce the audience to the visual by describing it. If you are using a chart to display data you will then need to define the axis, scale or parameters. Finally, and most importantly, you must explain what point the data makes.

Figure 1 may be described as follows:

INTRODUCTION: “This bar graph **shows** a comparison between the fly ash content and Vickers Hardness.

PARAMETERS: The horizontal axis **illustrates** the percentage of fly ash content and the vertical axis Vickers Hardness.

POINT: As you can see by this graph ... (*explain meaning*)”

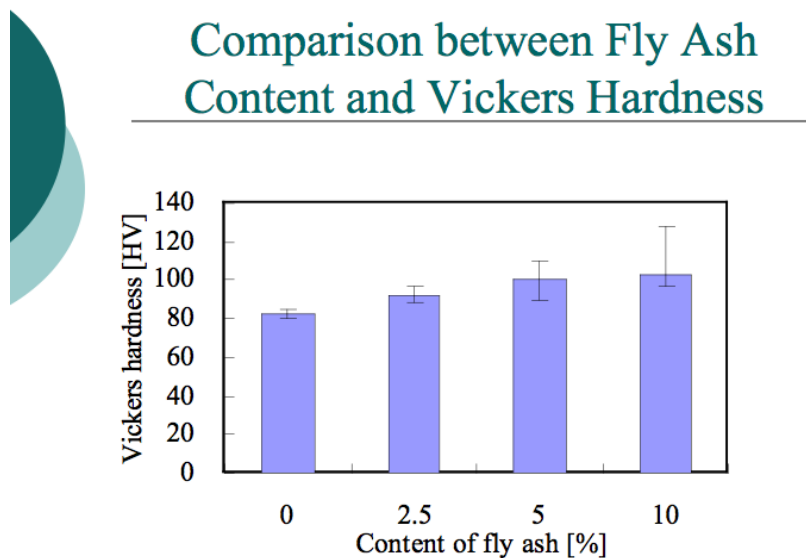


Figure 1.

List of Types of Visuals for Presentations⁷

Know what kind of visual you are using so that you can properly introduce it.

Pictures

Photograph

Map

Diagram

Illustration

Graphs

Bar Graph

Line Graph

Pie Graph (with segments)

Function Graph

Scatter Plot

Charts

Flow Chart

Bullet Chart

Histogram

Tables

Video/Audio-Visual

Video Footage

Animation

Features of Charts and Graphs

You will need to know the English for certain of these features of charts and graphs in order to be able to define the axis or parameters.

Colored line

Solid line

Dotted line

Upper box

Lower box

Horizontal axis

Vertical axis

⁷ Wikipedia is a useful location for information on the broad range of visuals that are typically found within presentation slides of a technical nature. See, for example:

http://en.wikipedia.org/wiki/Technical_illustration

<http://en.wikipedia.org/wiki/Diagram>

http://en.wikipedia.org/wiki/Bar_graph

http://en.wikipedia.org/wiki/Pie_chart

http://en.wikipedia.org/wiki/Line_graph

Large segment
Red segment

Useful Verbs for Describing Presentation Visuals

As when giving your presentation overview, try to vary the verb you use to describe different visuals.

Shows
Illustrates
Details
Describes
Explains
Displays
Represents

Ways of Describing Trends⁸

In explaining the meaning of the data you will have to comment on particular trends and/or changes. Some of the examples below will help you cope with increases, decreases or equilibrium.

Upward

To increase/to rise/

To go up/to grow/to expand

Downward Verbs

To decrease/to fall/to decline/

To drop/to contract/to shrink

No change

To remain constant/stable/

To stay the same/at the same level

Degree of Change

Greatly/considerably/significantly/slightly/moderately

Speed of Change

Swiftly/rapidly/suddenly/gradually/steadily/slowly

⁸ A useful glossary can be found in: Jeremy Comfort, *Effective Presentations* (Oxford: Oxford University Press, 2004), p. 34.

Teaching notes

You will need to cover all of the main areas outlined above. You can develop your own visual materials to accompany these points or use some of the visuals that students already have embedded in their slides. Most important with charts and graphs is that students follow the pattern of introducing the type of visual, (if necessary) defining its parameters, and providing the audience with the meaning of the information. You can also point out the absence of clearly defined parameters on slides and the use of undefined acronyms.

***Tip 1 – Vary your verbs, e.g. “This chart shows/illustrates/compares…”**

***In-class practice task 6 – Students come to the front of the class and present their example slides, explaining where and why they made changes. This is followed by group feedback.**

***Homework Assignment 10 – Students will finalize their methodology presentations. They need to be ready to stick to the time set in their outline and answer questions on keywords, technical terms and other possible methodological approaches. Prepare extra slides for this purpose.**

For some general visual materials guidance in Japanese you might want to introduce the students to the following books:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 46-68.

If there is a need for guidance in Japanese on structuring, organizing and introducing slides in a technical scientific context in English you can introduce the students to one or both of the texts below:

廣岡慶彦著, 理科系のための入門英語プレゼンテーション (東京: 朝倉書店, 2003.4) ISBN 4-25410-184-8 (Pages 14-57).

廣岡慶彦著, 理科系のための実戦英語プレゼンテーション (東京: 朝倉書店, 2002.4) ISBN 4-25410-182-1 (Pages 9-74).

[09] & [10] Presentation Performance – Methodology

Overview

For the professors attending your final presentation the methodology section will be of great interest. What method did you choose? Why this method? To what extent are you aware of other possible methods that may be equally, or perhaps more effective? Again, targeted feedback from instructors in these sessions is critical in helping you to improve your ability to explain yourself logically. The primary focus here is on you being logical and understood, both in your speech and in your presentation slides. Solid organization is essential. You need to be fully aware of the main concepts critical to your research and also be able to explain them in English. You need to be aware of other approaches (if there are others) and of the relative strengths and weaknesses of these and your own. Professors will quiz you on these areas and will expect a basic level of understanding on your part.

You can help yourself greatly by working in advance on keywords and viable alternate methodologies (if they exist). You should consider preparing extra slides for this section to assist you in answering questions. Professors will be very impressed with students who have anticipated possible questions and considered alternate methodologies.

Teaching notes

Students will present everything they have to date, including introduction, background and methodology. The previous sections are required in order to have context for the methodology. If a non-engineering specialist, you will become a little more familiar with the student's work each time they present, thereby giving you a better chance of being able to ask a question. Acronyms are a good place to start.

The emphasis of questions must be away from general matters and specifically on their methodology and at how this works in the context of their stated background objectives. Hopefully, you will have enlisted the assistance of a professor (or graduate students) for this session to ask questions that will ideally make the student a little uncomfortable. This is not cruelty but necessary preparation. It is better that the student is challenged in the practice sessions and can go away and find answers to legitimate questions before the real thing. Undergraduate engineering students only rarely investigate alternate methodologies in much detail, so this likely prepares them properly for their presentation and helps them evaluate their research too. Any question that cannot be answered effectively must be regarded as homework for the student to work on before the next session (instructors can give the student an identical question later in the course to check whether an answer has been prepared).

If possible, get other students engaged in asking questions of the presenter, especially those related to keywords and to methodological approach. Students in the same lab often (not always) are engaged in the same type of research and therefore are able to ask even more direct and problematic questions than a professor from a different area.

*In-class Practice Task 7 – Students come to the front of the class and present their introduction, background and methodology. Presentations will be 6–7 minutes in total (1:00–1:30 for the introduction, 2:00 for background and objectives and 3:00–3:30 for methodology). Students will demonstrate good physical skills, make 2 transitions, and show well-organized and coherent slides.

Timing should be organized and tight. Equipment should be set up in advance. You need to try to get students to ask some questions of the presenter, especially those related to keywords and to methodological approach, but have a clear idea of the maximum time you can devote to each presenter. You have only two weeks to complete these sessions. Comment on good technique and suggest areas for improvement.

Areas for Comment and/or Criticism

General Areas

*Good posture should be second nature by now. Comment on poor posture and nervous ticks.

*Comment on the lack of gestures when perhaps appropriate.

*Comment on the distracting use of equipment such as pointers.

*Eye contact is essential at regular points. We want to discourage students from reading from the screen, laptops or notes.

*Memorization is a slow process as each student's research is still undergoing processes of change. That said, basic introduction and background elements should be committed to memory. Comment on the absence of this.

*Voice projection is vital. Weak voices must be addressed. The benefits of memorization should be stressed. Recommend the use of a microphone, if necessary.

*Pronunciation of keywords and concepts should be monitored.

*Timing is becoming critical. Overly long presentations need to be trimmed. Typically, 1:00–1:30 minutes for the introduction and 2:00 for background and 3:00 for methodology are reasonable.

Specific Areas

*Presentation slides should be reasonably well designed and consistent in design. Pick up on spelling mistakes, excessive amounts of text, slides that are crowded, or use too many colors, transitions and font types. Most important, however, is how effectively information is presented. If ineffective, offer comments on how to improve.

*In terms of audience guidance, did the presentation have a proper introduction? Were there transitions between the introduction and background and between the background and methodology? Did the presenter vary the verbs used? Was the presentation clearly organized?

*How did the student deal with questions? Knowing the answer but not being able to find the words in English is much better than having no clue at all about the meaning of the question or how to begin answering it. Being familiar with his or her research is critical here. Where did the student have difficulty? Was it a linguistic problem, or an inability to answer because of a lack of knowledge? Would pre-prepared slides on keywords and methodology help?

*Overall, how was the methodology presented? Was it logical enough for you to be able to understand?

*As usual, pick up on really good aspects of the presentation and explain how these are examples of best practice. Encourage all students to copy effective aspects and avoid common pitfalls. Ask the other students their opinions.

***Homework Assignment 11 – Students prepare answers (and slides where useful) to any questions they were unable to answer. Then, start working on experiments and results.**

[11] Dealing with Questions (Recognizing Question and Comment Types)

****There may be a need to make time to finish up methodology presentations.**

Overview

Questions in Principle

Questions are the toughest part of a presentation for non-native speakers because they represent something unknown. We can rehearse almost everything else but questions are spontaneous and impossible to predict, aren't they? Well, no actually. A little thought will allow you to prepare quite well for many possibilities. You need to do two things:

- 1) Think logically about the kind of information the audience may seek based on the presentation content and then prepare responses (including, if possible, extra slides).
- 2) Learn how to identify and categorize, from a linguistic point of view, the kind of question or comment received in order to offer an appropriate English response.

At the same time, questions are a positive challenge for us. They allow us to show how well we are aware of our materials. You may regard them as something to be feared but you will find yourself sad in most cases if nobody bothers to ask a question. All that work you put in on this research and nobody has a question! It is almost an insult! As such, be grateful for anything you receive. You must thank the audience member. Pick one of the responses below:

- “Thank you for your question”
- “Thank you very much for your question”
- “Thank you for that/your interesting question”

Questions: The Linguistic Challenge

One of the biggest problems you may face as a second language learner is understanding precisely what the questioner wants in order to respond. This can be very daunting. Sometimes there actually is no question, rather a comment or suggestion. As such, you have to try to quickly recognize what information is being requested or being given.

In general, the main types of question/comment you will encounter are as follows:

- 1) Clarification (分かりやすく表現してくれる)
- 2) Additional or More Information (追加情報)
- 3) Agreeing and/or Disagreeing (同意する/同意しない)

- 4) Trying to suggest something useful (建設的な/面白い提案)
- 5) Nonsensical or Unconnected with your work (くだらぬ質問)

1) Clarification (分かりやすく表現してくれる)

This will probably be related to a word (e.g., impinging), idea (e.g., digital watermarking) or acronym (e.g., V.G. fin or RGB). Listen carefully for the “WHAT” at the beginning of the main part of question, followed by “MEAN” or “MEANING”. Most people will use this kind of question. You might also hear a question containing the words “DEFINE” or “DEFINITION”. For example:

What is [***]?

What does [***] mean?

What do you mean by [***]?

How do you define [***]?

But be careful! Sometimes these questions can be disguised when delivered in more polite forms. Don't panic. Just listen out for “WHAT”, “MEAN” or “MEANING”, “DEFINE” or “DEFINITION”, for example:

Can you tell me what [***] is?

Would you mind clarifying what you mean by [***]?

Could you explain to me how you would define [***]?

2) Additional or More Information (追加情報)

These are probably related to your methodology, experimental process, equation, or algorithm. Listen very carefully for “CAN YOU”, “COULD YOU” or “WOULD YOU” at the beginning, followed by a verb (動詞) such as “EXPLAIN”, “TELL” (me), “GIVE” (me), and then the words “MORE ABOUT”. For example:

Can you explain a little more about [***]?

Could you give me more information about [***]?

Would you tell me more about [***]?

Could you tell me why [***]?

3) Agreeing and/or Disagreeing (同意する/同意しない)

This may not necessarily be a question, but something you have to respond to. Probably also related to your methodology, experimental process, equation, or algorithm. Listen very carefully for someone to repeat some or part of what you said and then use “BUT”. This usually indicates that someone is disagreeing with what you’ve said, or at least part of it. This is not always the case but you should probably assume disagreement if you hear “BUT”.

You said that [***], but isn’t it the case that…
You used method A, but don’t you think that method B is…

“YET” or “HOWEVER” would also mean disagreement.

You stated that [***], yet in fact…
Your results show that [***], however…

Agreement is much more difficult to spot.

You said that [***], and I agree with you.
You said that [***], and I think that’s right/correct.

4) Trying to Suggest Something Useful (建設的な/面白い提案)

This can be a question or statement. It may follow a request for more information (2) or perhaps a disagreement (3) with one of your ideas. It can be another way of asking for additional information if it is in a question form, and is probably related to your methodology, experimental process, equation, or algorithm.

Listen carefully for the obvious words “SUGGESTION” or “SUGGEST”. Then you have two options: if you agree with the suggestion simply thank the person and add something like “that is a really good idea”, or give your views on the suggestion.

I suggest that you [***].
My suggestion is that you [***].
One suggestion would/might be that [***].
Maybe you could [***].

Have you considered the possibility [***]?
Have you thought about [***]?
What would happen if you [***]?
Don’t you think it might be more effective if [***]?

5) Nonsensical or Unconnected with your work (くだらぬ質問)

An audience member may be confused about your work. Maybe they arrived late and did not hear the whole presentation. Sometimes there is confusion due to language. Regardless, you must always stay polite. Say thanks. Deal with the question properly. Explain in brief whatever you can or that your work doesn't deal with that issue.

****In all cases, if you don't understand what kind of information the questioner is asking for, or whether there is a question at all, ask them to repeat what they said and/or simply repeat what you thought their question was to check your understanding. See the next chapter.**

Teaching notes

Your job here is to show students that they can prepare for the vast majority of questions they will receive by spending some time putting themselves in the position of the audience. Logically, what kind of things might be asked? This really is where all the keyword and methodology work you have been doing throughout the course comes in to play. Students who have prepared extra slides will have a distinct advantage during Q&A sessions. Additionally, question survival skills can be taught. Careful listening as well as strategic requests for the audience member to repeat a question will allow the student to be able to respond.

***Homework Assignment 12 – Students will prepare for their experiments and results presentations. They should predict possible questions and prepare answers at the same time, making slides for this purpose if necessary.**

For some guidance on questions in Japanese you might want to introduce the students to the following books:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 107-113.

廣岡慶彦著, 理科系のための入門英語プレゼンテーション (東京: 朝倉書店, 2003.4) ISBN 4-25410-184-8 (Pages 58-63).

廣岡慶彦著, 理科系のための実戦英語プレゼンテーション (東京: 朝倉書店, 2002.4) ISBN 4-25410-182-1 (Pages 75-84).

[12] Dealing with Questions (Responding to Questions and Comments)

Overview

Unfortunately, preparing answers for potential questions and learning how to recognize different types of questions (previous lesson) does not necessarily mean that you will be able to understand what is being asked and how to answer in real time. Even when you understand the question and are able to answer, there are certain protocols/criteria and strategies for giving the best possible answer, as is the case when you are unable to answer the question although you understand what has been asked or cannot understand the question in the first place. These eventualities are explored below so that you learn how to respond in whatever situation you face.

We move on then to how to respond to questions if:

1. you know the answer
2. you do not know the answer
3. you do not understand the question

1. If you know the answer

Answer as clearly and concisely as possible, directing your response to what the questioner specifically asked about. Giving clarification or more information is quite straightforward. For responding to disagreement or suggestions the following may be useful:

The short answer (to your question/to that) is “Yes/No”.

Yes, you are correct/right.

No, that is incorrect/not right.

No, that’s not quite/really what my research is about.

No, that’s not what I’m trying to suggest. What I’m saying is that [***]

You are right in saying that, but I must add that [***]

You are definitely right on that point, although I would also have to say that [***]

You are quite right, though I must disagree with your suggestion that [***]

You are correct in making that point, but/however [***]

You may extend your answer to make additional points or to take issue with the questioner, but answer the question first and foremost.

Sometimes you are faced with a very tricky question, something that you need time to answer. One way is to thank the questioner for their question and comment on it, for example:

Thanks very much for your question. That's a very difficult one to answer. Let me see [*****]

Another way is to use reflective (反射) questioning. You do this by seeking clarification from the questioner about what he or she asked by repeating (繰り返し), paraphrasing (言い換え), or summarizing (要約する) the question. On the one hand, this is a way of showing the questioner that you have heard and understood the question. On the other, it is a good way of buying yourself extra time. For example:

Question: Why did you concentrate your research on monochrome images rather than color ones when the kind of compression technique you propose is logically for internet-bound image files? With the rapid uptake of broadband connections throughout Japan and the rest of the world few people these days use monochrome images on websites.

Answer: Let me get this straight. What you're asking me is why I focus my research on monochrome images files when the spread of high-speed Internet connections means that people can quickly and easily upload or download color image files, is that right?

2. If you do not know the answer

If you really do not know the answer to the question, be honest about it. Sometimes the questioner may spot some flaw (欠陥) in your work or your argument, or at least something that you should perhaps have picked up on but didn't.

I'm sorry, but I can't answer your question
I'm sorry, but I really can't give you an answer to that
I'm sorry, but I don't have an answer to that question

I'll need to look that up/investigate that. If you would like to give me your e-mail address (or contact number) I'll get back to you with a full/proper answer.

(BUT, if you say you will follow something up, please make sure you do so.)

I probably/really should have addressed/covered that in my work.
Thank you for pointing that (problem/flaw/inconsistency) out.

However, there may well be a good reason why you don't know the answer. In the first part, your research may not have covered the theme or area the questioner is interested in, therefore you can't answer their question.

I'm sorry, but I really can't give you an answer to that. The question you ask does not fall within the scope of my current research/falls outside the scope of my current work.

I'm sorry, but I really can't give you an answer to that. It is something that I would certainly like to look into in the future.

Sometimes, the questioner is confused about what your research is about, meaning that you will not be able to answer their question.

That's a very interesting question, but my work does not look at/deal with/focus on/concentrate on/examine [***].
I examine [***] rather than [***]

3. If you do not understand the question

This is NOT the same as being unable to answer the question. In this case the questioner may have used English words you did not understand, may have been overly technical, may have spoken too quickly, may have spoken too far from a microphone (so you did not hear properly), etc. In such cases:

I'm sorry, but could you repeat the question?
I'm sorry, I didn't catch that. Would you mind repeating your question?
I'm sorry, but I don't understand your question.

Another useful thing to remember is that the chairperson's job is to facilitate interaction between presenter and audience. If you really don't know what is going on turn to the chairperson (who should be watching everything intently) with a "help me!" expression. Then, if the chairperson does not intervene, say to your questioner:

*I'm sorry, but could you rephrase (言い直す) your question?

*One thing you should be well aware of is the possible consequences of this "rephrase" option. If the questioner is a non-native speaker, it may have been very difficult to formulate and ask the question in the first place. By requesting that they rephrase the question you may actually be killing it off altogether or throwing things

into confusion. Although such an outcome would not be your responsibility as presenter, you should try to avoid it if at all possible. Even if you have a minimal understanding about what has been asked try repeating (繰り返し), paraphrasing (言い換え), or summarizing (要約する) the little that you did understand of the question (which constitutes reflective (反射) questioning as above if you really understand the question and are simply buying time to answer) rather than choosing the “rephrase” option.

*Your question was [***]

*You asked me [***]

Finally

Whatever the circumstances were, when you have finally answered your question you need to check that the questioner is satisfied. Perhaps they need more information or different information.

“Does that answer your question?”

Teaching notes

Your job here is to give students advice on how to respond to questions or to deal with tricky situations in which they may not understand what is going on. A typical response in the case of a lack of understanding (and this is painfully common!) is for the student to stand looking confused and saying nothing for what seems an eternity. You must get through to them that this is unacceptable. They need to be proactive during Q&A, if only saying “Could you please repeat that?”

*Homework Assignment 14 - Students should continue preparing for their experiments and results presentations. They should be ready to stick to the time set and to answer questions on experimental processes and results. They should prepare extra slides for this purpose.

For some guidance on questions in Japanese you might want to introduce the students to the following books:

D.E.ウォルターズ, G.C.ウォルターズ著 ; 小林ひろみ, 小林めぐみ訳、アカデミック・プレゼンテーション (東京: 朝倉書店, 2003). ISBN 4-25410-188-0. Pages 107-113.

廣岡慶彦著, 理科系のための入門英語プレゼンテーション (東京: 朝倉書店, 2003.4) ISBN 4-25410-184-8 (Pages 58-63).

廣岡慶彦著, 理科系のための実戦英語プレゼンテーション (東京: 朝倉書店, 2002.4) ISBN 4-25410-182-1 (Pages 75-84).

[13] & [14] Presentation Performance – Experimental Processes & Results

Overview

Whereas the methodology section revolved around the explanation of the hows, whys and relative advantages and disadvantages of chosen approaches, your experiments section details your findings. Here, data becomes the focus of attention and the critical issue is going to be how effectively you explain your findings and the meaning of data. Professors will probably take issue with your setting of experimental conditions and parameters. They may ask, in the case that you show simulated results, what real world results might be in comparison.

Solid organization is essential. You need to be fully aware of why you set parameters or conditions in a certain way and at possible results if conditions were changed. It is not good enough to just state that conditions were set in such a way because you are extending previous research. You may be asked, if you are using data and conditions from previous research, what your unique contribution in this current research is.

Your data (charts, graphs, etc) must be well laid out in your slides. The axis values or scales, as well as elements such as dotted lines or boxes, should be clearly defined on the slide. You need to use the right language to introduce and define your charts and graphs. You should consider preparing extra slides for this section showing results under different conditions. Professors will almost certainly be impressed by students who have anticipated alternate conditions or parameters. They will also be impressed by those who can identify reasons for failure under certain conditions or aberrant behavior.

Teaching notes

Unless there are tight time limitations, students should present everything they have to date, including introduction, background, methodology, experiments and results. We need to listen to the previous sections in order to have context for experiments and results. This will also be their last formal practice session before their final presentation.

The emphasis of questions must be on their experiments and results in the context of the methodology. You will probably need the assistance of a professor or graduate students to ask difficult technical questions. As before, this is necessary preparation. It is better that the student is challenged in the practice sessions and can go away and find answers to legitimate questions before the real thing. Any question that cannot be answered effectively must be regarded as homework for the student to work on before the final presentation.

If possible, get other students engaged in asking questions of the presenter, especially those related to keywords and to methodological approach. Students in the same lab often (though not always) are engaged in the same type of research and therefore are

able to ask even more direct and problematic questions than a professor from a different area.

*In-class Practice Task 9 – Students present their introduction, background, methodology, experiments and results. Presentations will be about 9–10 minutes in total (1:00 for intro and 2:00 for background. 3:00 for methodology and 3:00–3:30 for experiments). Students will demonstrate good physical skills, make 3 transitions and show well-organized and coherent slides.

Timing should be organized and tight. Equipment should be set up in advance. Try to get students to ask questions of the presenter, especially those pertaining to methodology, experiments and results, but have a clear idea of the maximum time you can devote to each presenter otherwise time will slip away. You have only two weeks to complete these sessions. Comment on good technique and suggest areas for improvement.

*Homework Assignment 15 – Start working on final presentations and the memorization of your scenario (if you have organized one). See below:

*Supplemental Materials 5 – Appendix 3 – Download from the course site – “Structuring a Presentation Scenario シナリオ (Script スクリプト)

Areas for Comment and/or Criticism

General Areas

*Good posture should be second nature by now.

*Comment on the lack of gestures when perhaps appropriate.

*Comment on distracting use of equipment such as pointers.

*Eye contact is essential at regular points. We want to avoid students reading too much from the screen, from laptops or notes.

*Memorization is a slow process as each student’s research is still undergoing processes of change. That said, introduction, background and basic methodology should be reasonably committed to memory. Comment on absence of this.

*Voice projection is vital. Weak voices must be addressed. The benefits of memorization should be stressed.

*Pronunciation of keywords and concepts should be monitored.

*Timing is critical. Overly long presentations should be commented on.

Specific Areas

*Presentation slides should be well designed and consistent in design elements throughout. Pick up on spelling mistakes, excessive amounts of text, slides that are too crowded, **and any excessiveness in color, inclusion of transitions and use of different font types.** Most important herein is how information is presented. Are axis and parameters clearly defined? How about lines, boxes and other element in charts and graphs? Was the presenter able to explain the meaning of data in charts and graphs?

*In terms of audience guidance, did the presentation have a proper introduction? Were there transitions? Did the presenter vary the verbs used? Was the presentation clear in organization or a little fuzzy?

*How did the student deal with questions? Knowing the answer but not being able to find the words in English is much better than having no clue at all about the meaning of the question or how to begin answering it. Being familiar with his or her research is critical here. Where did the student have difficulty? Was it a linguistic problem, or an inability to answer because of a lack of knowledge? Would prepared slides help?

*Overall, how were experiments and results presented? Was it logical enough for you to be able to understand?

*As usual, pick up on really good aspects of the presentation and explain how these are examples of best practice. Encourage all students to copy effective aspects and avoid common pitfalls. Ask the other students their opinions.

*Since this is the last real presentation practice the students will likely get before the actual presentation offer them some comments on their best aspects and point to any specific problems they will need to address.

[15] Structure & Organization (Guiding the Audience 3 – Summary & Conclusion)

*****If there is time to cover the conclusion prior to class 15, it would be better to do so, and then leave this last class as a final practice opportunity.**

Overview

The final part of your presentation is your conclusion. Organizing one is quite straightforward. A full length conclusion (if you have time) is a past tense (過去形) version of your introduction overview with the addition of emphasis points and future research suggestions. Emphasis points focus in on the main findings of your research and (often) at aspects of your methodology. The idea of the future research part of the conclusion is for you to make some judgment as to the success or failure of your research in the context of your chosen approach. If yours was not entirely successful or perhaps somewhat inconclusive, you can make suggestions as to the way to proceed for better results. Professors will always be impressed by a student who grasps where he or she went wrong. Even if you achieved success, consider mentioning ideas that might improve your approach further or extend the research into new areas.

Consider the following (actual) example from last year:

Finally, I'd like to sum everything up in my conclusion.

My presentation was divided into three sections. In the first section I introduced the application of supersonic mixing. In the next section I explained the supersonic mixing enhancement device in my research. In the final section I discussed my experimental results. There were two main points.

1. In the case of rods, average total pressure in both my experimental results and the numerical calculation results showed similar tendencies, except at 111.
2. In the case of jets, average total pressure in both results showed almost the same tendencies, although there were differences in each at 030.

In terms of future research, I would like to clarify the direction of flow in the cavity utilizing a thermal tuft probe.

As you can see, the first part of the conclusion is just a past tense version of the future tense (未来時制) introduction as shown below:

My presentation today will be (was) divided into three sections.

In the first section I will introduce (introduced) the application of supersonic mixing. In the second section I will explain (explained) the supersonic mixing enhancement device used in my research. In the final section I will discuss (discussed) my experiments and results.

How you evaluate your research in order to summarize your main findings in the second part of your conclusion will likely be done in conjunction with your supervisor. You cannot mention every finding in a short conclusion (1:30–2:00 minutes maximum in a 10 minute presentation!), just the most unique aspects of your methodology (if unique) and your main experimental findings. Hopefully, you will be able to discuss these in more detail during the Q&A session. Methodology and experimental results are the primary focus of questions in final engineering presentations (one reason, of course, why you should always try to prepare extra slides).

The future research ideas that you will mention at the end of your conclusion should probably also be discussed with your professor.

Teaching notes

Here comes the pep talk! With only one week remaining you should review the main presentation points you feel that this group needs to hear again. By now, most aspects have been adopted and are largely second nature.

At this late stage your primary problems will be as follows:

1) Some student scenarios may still be in need of serious proofreading. Theoretically, the student's academic supervisor is responsible for the integrity of the technical English while you cope with the general sections of the scenario and slides. In reality, of course, you may also be faced with the job of making technical sections look better. If this is the case, all you can do is do what you can.

It is probably best to leave the most complex technical parts well alone rather than end up inadvertently altering the meaning as you try to cut through dense thickets of English chaos. Going back to the student's original Japanese text may help to clarify meaning in some instances, though you could well end up doing a lot of translating to make things look better.

It might be best for your sanity if you set a final deadline for proofreading of slides and scenarios (perhaps one week prior to the final presentation). This also helps you in regard to points 2) and 3) below.

2) Partly because of issue raised above and partly because new information is still being introduced, students have not yet managed to memorize their

presentation scenarios, meaning that their physical skills suffer greatly. You should advise them (their professor might disagree and will certainly trump you in this regard) not to make any further changes to their scenario and just concentrate on memorization. At the very least, introductions and conclusions should be memorized so that physical skills can be employed for short parts of the presentation.

3) Student pronunciation of many key terms might still be weak and voice inflection limited. This will be an individual instructor decision, but recording the student's scenario and e-mailing them an mp3 in advance of the final presentation will be of enormous help to some.

4) Presentation timing might still be running over. Have them practice with a stopwatch from here on in. Suggest areas where cuts can be made. Typically, methodology and experiments sections should stay as is. It is usually possible to shave more than a few seconds by cutting unnecessary information from the background and objectives section and by compressing the introduction. If overly long you will need the student to consult with his or her professor.

***Homework Assignment 17 – Practice, practice, practice!**

[16] Final Presentation

Teaching notes

The job here is simply to assess the final performance in all respects and award a grade. It is likely that there will be considerable instructor autonomy in this regard. The following evaluation sheet may or may not be of use to you in assessing performance:

=====

Student Name: _____

Evaluate the presentation in terms of the application of techniques covered on the course: the nature of good physical skills; structural elements such as introduction, conclusion and audience guidance; the making and use of visual materials and; how questions were prepared for and handled.

Physical Skills (Circle the most appropriate number)

	Poor				Excellent	
Posture/Movement	1	2	3	4	5	6
Eye Contact	1	2	3	4	5	6
Gestures/Equipment Use	1	2	3	4	5	6
Voice (Level/Intonation)	1	2	3	4	5	6

Noteworthy points: _____

Organization and Audience Guidance (Circle the most appropriate number)

	Poor				Excellent	
Introduction	1	2	3	4	5	6
Organization/Structure	1	2	3	4	5	6
Transitions & Sequencers	1	2	3	4	5	6
Conclusion	1	2	3	4	5	6

Noteworthy points: _____

Visual Materials (Circle the most appropriate number)

	Poor				Excellent	
Design (Look/Consistency)	1	2	3	4	5	6
Organization/Alignment	1	2	3	4	5	6
Use of Visuals	1	2	3	4	5	6

Noteworthy points: _____

Questions (Circle the most appropriate number)

	Poor				Excellent	
Understanding	1	2	3	4	5	6
Ability to Answer	1	2	3	4	5	6
Prepared Slides	1	2	3	4	5	6
Language Use	1	2	3	4	5	6

Noteworthy points: _____

Overall Score (out of a possible 90) _____

1) Appendix One – Important English

What do you say when…?

…とき何と言いますか

…you want someone to repeat something?

もう一度聞きたいとき

Pardon?

Pardon me?

One more time, please

Once more, please

Can you repeat that please?

Could you repeat that please?

Could you say that again please?

…someone is speaking English too quickly?

相手の英語が早すぎて聞きとれないとき

Please speak (more) slowly.

Could you speak more slowly, please?

More slowly, please.

…you don't understand?

分からない(理解できない)とき

I don't understand.

I'm sorry, (but) I don't understand.

…you want to know what something means?

何か単語の意味を知りたいとき

What is […]?

What does […] mean?

Could you tell me what […] means?

Could you explain what […] means?

…you understand the question but don't have an answer

分かったけど答えられないとき

I don't know.

I'm sorry, (but) I don't know.

I'm not sure.

…you want to know how to spell something?

単語の綴りかたを知りたいとき

How do you spell that?

How do you spell […]?

…you want to know how to pronounce something?

単語の発音の仕方を知りたいとき

How do you pronounce that/this/[…]?

…you want to know how to say a word in English/Japanese?

単語を英語／日本語で何と言うかを知りたいとき

How do you say that in English (or Japanese)?

How do you say […] in English (or Japanese)?

What is […] in English (or Japanese)?

2) Appendix Two – Let me introduce myself (自己紹介させてください)

名前	My name is [...]. My name's [...]. I'm [...].
年齢	I'm [...]-years old. I'm [...]. I was born in [...].
出身	I'm from [...]. I come from [...]. I was born in [...].
住んでいる所	I live in [...].
結婚?	I'm married (I'm divorced). I'm single. I have a boyfriend/girlfriend I'm going out with/dating/seeing
子供?	I have [...] children. I don't have any children.
兄弟?	I have [...] brother(s) and [...] sister(s). I don't have a(ny) brother(s) or sister(s).
仕事	I work at [...] as a/an [...]. I'm a [...].
趣味	My hobby is [...]. My hobbies are [...] and [...]. I like [...]. I enjoy [...]. In my spare time I like to/enjoy [...]. On weekends I like to/enjoy [...]. I belong to [...]. My favorite [...] is/are [...].
ほか	My star sign is [...] (私の星座は...) 占星術 I was raised a [...] (私は[...]教徒として育てられた) 宗教 (Q: 何の宗教をお持ちですか? – What religion are you?) I have [...] dog(s) and [...] cat(s).

3) Appendix Three – Getting to know someone by asking questions (質問をすることによって誰かと知り合いになること)

名前	What is/What' s your name?
年齢	How old are you? Do you mind if I ask how old you are?
出身	Where do you come from? (Which country do you come from?) (Which part of the world are you from?) Where were you born?
住んでいる所	Where do you live?
結婚?	Are you married? Do you have a boyfriend/girlfriend?
子供?	Do you have any children?
兄弟?	Do you have any brothers or sisters?
仕事	What do you do? What' s your occupation? Where do you work?
趣味	What is your hobby/are your hobbies? What do you do in your spare time?
ほか	Can you drive? How long have you been [...]? (here, in Japan) What do you like most about [...] (your studies) What/which languages do you speak? Do you have any ambitions? Do you have any pets? Why do you want to [...]? (learn English) Do you like [...]? Who' s your favorite [...]? (singer, film director) What' s your favorite [...]? (baseball team, TV program) What kind of [...] (s) do you like? (movies, food) Have you ever [...]? (run a marathon, been to the USA)
質問	do you/when/where/who' s/what' s/how many/why?