Oral Communications

ME482

Senior Design

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Everything becomes a little different as soon as it is spoken out loud

Hermann Hesse
Oral Communications

- Implies communications through mouth
- Direct (face to face) conversation or telephonic conversation
- Speeches, presentations, discussions
- Direct interaction is required
- Face to face communication like:
  - Meetings, lectures, conferences, interviews, etc.
  - Group discussions, social gatherings

- High level of transparency and understanding
- No element of rigidity: flexibility for allowing changes in decisions
- Spontaneous feedback and quick decision making
- Time saving
- Also saves money and efforts
Oral Communications

- **Intrapersonal**
  - Feelings, biases, prejudices, beliefs
- **Interpersonal**
  - Communications between two persons
  - Talking to friends, discussions, teacher/student, patient/doctor, manager/employee
- **Small group communication**
  - Formal or informal
  - Group interactions: decision making, problem solving, group planning
- **One to group communication**
  - Inform, persuade, motivate an audience
- **Mass communication**
  - Electronic or print transmission to public
  - Mass media
  - Books, newspaper, billboards, television commercials
Problem Resolution

- Conflicts, disputes and many issues and differences can put to an end by talking them over
- Essential for teamwork and group energy
- Promotes a receptive and encourages morale among organization employee
- Can be used to transfer private and confidential information and matters.
Only Oral Communication May not be Sufficient

- Business communication is formal and very organized.
- Oral communications are less authentic than written communications.
- Oral communication is time saving: daily interactions.
- But sometimes meetings and long lectures are unproductive.
- Not easy to maintain and thus they are unsteady.

- May be misunderstanding: lack of information and essentials.
- Oral communications like speeches are not frequently used as legal records except in investigation works.
General Guidelines for Oral Communications

- Know your purpose.
- Know your audience.
- Choose and organize the content around your purpose and your audience.
- Be precise and clear.
- Design your purpose well.
- Think visually.
- Communicate ethically!
Direct Conversations

Metrics:
• Facial expressions and gestures make communications effective
• Best medium for discussions: negotiation, interview, counseling, etc.
• Communicator can see the reaction of his/her message through gestures, expressions and tone
• Immediate feedback
• Save time and efforts
• Listeners can get immediate clarification of any doubts

Limitations:
• Dealing with a large group
• Listeners are not attentive and have different perceptions
• Not a permanent record
• Less effective if communicator has no convict on himself
Telephonic Conversation

Metrics:
• Interact freely on phone
• Eliminates barriers
• Get immediate / quick feedback
• Talk one person effectively
• Long discussions are not possible
• Expensive and less effective

Limitations:
• Technical problem
• Distract telephone network
• Ring tone disturb others
  • In classroom, meetings, silence zone, conferences, etc.
Oral Communications: Telling the crowd WHAT’S BEEN DONE

- Knowing the Audience: Who’s Listening
- Logistics managers
- The marketing department
- Manufacturing managers
- …

- Once the audience has been identified, a team can tailor its presentation to that audience.
- Articulate a rough outline
- Formulate a detailed outline
- Prepare the proper supporting materials, such as visual aids or physical models
Communications and Listening Skills

- Correct choice of medium
- Strong conviction
- Sequence, coherence and consistency in content
- Economical, accurate, empathetic
- Identify barriers, try to rectify the problem
- Appropriate body language

- Ability to steer the conversation in a positive direction
- To lead to a business discussion, personal talk, employing control and techniques
- Leave a positive impression
The Presentation Outline

Just as with a report, a presentation must have a clear structure.

A sample presentation outline would include the following elements:

• A title slide that identifies the client(s), the project, and the design team, or organization responsible for the work,
• A roadmap for the presentation,
• A problem statement,
• Background material on the problem, including relevant prior work and other materials developed through team research,
• The key objectives of the client and users as reflected in the top level or two of the objectives tree,
• The key constraints that the design must meet,
• Functions that the design must perform,
• Design alternatives,
The Presentation Outline

- Highlights of the evaluation procedure and outcomes,
- The selected design, explaining why this design was chosen,
- Features of the design,
- Proof-of-concept testing,
- A demonstration of the prototype: Video or still photos may also be appropriate here,
- Conclusion(s), including the identification of any future work that remains to be done, or suggested improvements to the design.
Presentations are Visual Events

- Know the setting in which the presentation will be made.

- Some tips and pointers about good presentations:
  - Limit the number of slides,
  - Be sure to introduce yourself and your teammates on the title slide,
  - Beware of “clutter”,
  - Make points clearly, directly, and simply,
  - Use color skillfully,
  - Use animation appropriately,
  - Do not reproduce completed design tools.
Practice Makes Perfect, Maybe . . .

• While practicing its presentation, a team ought to prepare for questions from its audience by:

• Generating a list of questions that might arise, and their answers,
• Preparing supporting materials for points that are likely to arise (e.g., backup slides to answer anticipated questions)
• Preparing to say “I don’t know,” or “We didn’t consider that.”
Speak well

- Hone your message. Practice, practice, practice so that you can easily say what it is you do.
- Be succinct. Boil it down to something short and sweet.
- Have a great hook.
- Create sound bites. Sound bites are short, pithy, memorable phrases or summary statements that quickly make a point.
- What are your top three key messages? Try to have an example or story for each key point.
- Get media training. While such training is critical for top executives or company spokespeople, this can help you speak on your feet, too.
- Be easy to work with.
- Be friendly.
Speak well

- Be pleasant. If you're on camera, lean forward so that you look interested. Remain aware of the objective. For the media, it’s to provide an informative and entraining show for the audience.
- Never abuse your position. In an interview, don’t turn your performance into a sales pitch. In a sales presentation, don’t be long winded or disparage competitors. Stick to the point.
- Localize your answers. Tying your proposal or work to specific events relevant to the audience can help make your case.
- Speak clearly. Don’t swallow your words or mumble. Don’t make your audience work to understand what you are saying.
- Be mindful of the time. Know how long you have for your presentation or interview and adjust the length of your talk or answers accordingly.
- Leave time for answers.
- Send a thank you.
How to get ready for a report:
- Determine the purpose and audience of the technical report;
- Construct a rough outline of the overall structure of the report;
- Review that outline within the team and with the team’s managers or, in case of an academic project, with the faculty advisor;
- Construct a topic sentence outline (TSO) and review it within the team;
- Distribute individual writing assignments and assemble, write, and edit an initial draft;
- Solicit reviews of the initial draft from managers and advisors;
- Revise and rewrite the initial draft to respond to the reviews;
- Prepare the final version of the report and present it to the client.
Structuring the Final Report

- abstract;
- executive summary;
- introduction and overview;
- problem statement and problem definition or framing, including relevant prior work or research;
- design alternatives considered;
- evaluation of design alternatives and basis for design selection;
- results of the alternatives analysis and design selection;
- supporting materials, often set out in appendices, including: drawings and details;
- fabrication specifications;
- supporting calculations or modeling results; and
- other materials that the client may require.
A Rough Outline for a Good Report

Introduction

I. Problem statement
II. Background information on cerebral palsy, motivation for project

III. Design plan
   a. Work breakdown structure
   b. Definition of objectives and constraints, including objectives tree
   c. Definition of functions and means, morphological chart

IV. Design research
   a. Summary of devices currently available
   b. Evaluation of these devices for suitability in this project

V. Description and evaluation of design alternatives
   a. Details and drawings of each alternative
   b. Metrics for choosing between designs

VI. Final design
   a. Detailed description of chosen alternative
   b. Description of prototype and how it works

VII. Testing the design
   a. Description of three test sessions at Danbury
   b. Conclusions and refinements of design based on testing

VIII. Design evaluation
   a. Consideration of constraints
   b. How well design meets objectives
   c. Functional analysis
   d. Details on proposed design changes based on testing and evaluation

IX. Works cited

Appendix: Work breakdown structure
Appendix: Research on dashpots
The Topic Sentence Outline

- The topic sentence outline (TSO) is a particular type of detailed outline,
- Every entry represents a paragraph,
- The topic sentence outline allows the team to see the detailed structure of the report
- The topic sentence outline also encourages a fair distribution of the writing work load
A TSO example for a report:

III. Design plan

A. After clarifying the problem statement, the team began the process of designing the device
   a. Paragraph describing the overall approach to the design
      i. Work breakdown structure
      ii. Objectives and constraints
      iii. Defining functions and means
      iv. Creating and evaluating design alternative

B. The work breakdown structure consists of the tasks for the design process and their deadlines

C. In order to implement the design, the team needed to define objectives and constraints
   a. Paragraph defining objectives
      i. Objectives are things one wants the design to achieve
      ii. Objectives have a hierarchy
      iii. List of ranked objectives
   b. Paragraph on liaison reaction to ranked objectives list
      i. Liaisons added an objective and ranked it
   c. Paragraph on organization of objectives
      i. Objectives sorted into three categories: user-friendly, primary device functions, and features
      ii. Objectives divided into subobjectives
      iii. Listing of subobjectives
      iv. Objectives tree
   d. Paragraph on evaluating objectives using metrics
   e. Paragraph defining constraints
      i. Constraints are limits on the design
      ii. List of constraints and description
   f. Paragraph on liaison input and reaction to constraints
      i. Initial constraints
      ii. Constraints added after reaction from liaisons