Phase II: Design

THE END OF THIS DOCUMENT IS DELIVERED TO THE CLIENT

What This Is

This guideline lists **the process steps for developing a work break down structure** that identifies all the tasks in the project's work, the first step in creating a detailed project plan and schedule.

Why It's Useful

A key to successful project scheduling is to break down the project goals into tasks BEFORE you consider delivery dates, resource constraints, specific named resources, or task dependencies. This helps you to objectively identify all of the work necessary without subconsciously leaving out real work in order to fit date constraints.

The Work Breakdown Structure (WBS) step helps accomplish the following key objectives:

- Develops an objective, rational view of the amount of work required (VITAL!)
- Helps team grasp the skills required and amount of resources required for the project
- Provides a clear framework for assigning to individuals a clear task definition and delegate the responsibility for completion
- Lays a foundation for analyzing the task dependencies and for isolating and managing risks
- Lays a foundation for developing a bottom-up estimate for the project schedule
- Allows tradeoffs to be made consciously and with the proper consensus involved.

How to Use It **(Project Managers)**

1. Review the process steps for creating a work breakdown structure starting on the next page.
2. Identify how team members will be involved in creating the WBS and educate them on their role. The primary objective is to get all of the team participants to contribute to the definition of the work.
3. Determine an appropriate organization for your WBS and begin identifying major work efforts. See the detailed guidelines which begin on the following page for how your WBS can be organized.
4. Break the top level of your WBS further into a hierarchical set of tasks. Use the guidelines starting on the next page for deciding how far your WBS must be broken down to ensure that you've defined enough detail for scheduling your project.
5. This WBS information will feed the next step in the planning/scheduling process: Assigning resources to tasks.

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Overview of WBS Creation

The WBS is the first step in developing a detailed DESIGN work plan for the project. Task Identification and WBS Creation bridges from the early Scope definition (DEFINE) to creation of a detailed project schedule.

***1) Start with:* The Scope**

Defines at the highest level what has to be done—what must be created and delivered to the project's customers. What you WILL cover, what you WON'T cover, and WHY?

***2) Create*: The Work Breakdown Structure (WBS)**

Create a Functionality Chart (as seen in Sarah's handouts)

3) *Based on the WBS, develop:* The Project Schedule

a) Create a current Structure Chart demonstrating the Website's Organization or Site Map what they have now and. . .

b) Create another Site Map of what your team believes the site should look like

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The Work Breakdown Process: From the Top Down

Use the following top down approach to iteratively create your WBS:

First identify the major components of work to be accomplished.

Identify 5-10 major work groups which primarily set up how the work is expected to be organized, to form the highest level or first level of the WBS. Choose this top level of your WBS to match your organizational and internal work methodology—the best way to organize the work for this project given the project complexity; how the work is spread across your organization; and how the work will be tracked and managed. Here are seven approaches. (ref: *Effective Project Management,* Wysoki et al, pg. 120)

Identify the next level of work (Level 2) under each major component and list them under their top-level groups. This can be done with indented lists or graphically in an organization chart.

Level 1
- Level 2-1
- Level 2-2
  - Level 3-1
  - Level 3-2
  - Level 3-3

Indented List

Sample Graphical Chart

3. **Continue to break down the work under each Level 2 items**

   Break down to the level of task detail that ensures the top-level components are broken down far enough for identification of all the work that needs to get done. Details under some may break into three or four levels. Others may require no more detail, or only one additional level.

   Write preliminary plans if necessary to help scope the later cross-functional efforts: documentation, manufacturing, testing, etc. Remember what Sarah stated in her lecture, define your tasks, and then break them down to smaller tasks and then even smaller.

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Examples and Definitions of Typical WBS Levels

The following is one possible work breakdown approach starting with project lifecycle *phases* at Level 1, major *deliverables* of each phase as Level 2, and the activities, then tasks, to create each deliverable as levels 3 and 4.

Phases (you have left II, III, IV, and V)	Identify major phases of work (e.g. specify, design, build, test…)
Major Project Deliverables and related milestones (for this Phase II Only)	Identify the major component deliverables of work required (e.g., subsystems that must be designed, built, tested, during each phase.)
Activities (this is overall that the team will accomplish)	Identify the activities needed to create those deliverables. (Some interim, smaller deliverables such as documents may be involved.)
Tasks (who will be responsible for each?)	Break the activities down to an appropriate level of task detail.

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How to Engage the Team in Creating the WBS

This is a team process and should *not* be done by the Project Manager alone. Plan to engage the project team to analyze and break down the work into a sequence of deliverables, activities, and tasks until the detail defines a manageable project. Here is a suggested process:

1) The Project Manager can propose what the top level of the WBS should be.
2) Call a core team meeting (on SKYPE and then have another one with Debra on SKYPE) to review the suggested top level of the WBS and define the next level of detail. In the meeting, agree on the top level of the WBS and brainstorm a list of items to include at Level 2.
3) Work collaboratively to identify subsequent levels of WBS detail, by drafting WBS activities and tasks onto a whiteboard or flipchart paper on the walls, or by writing deliverables, activities, and tasks on sticky notes and sticking them to the whiteboard or wall underneath the appropriate top level section of the WBS.
4) Publish the draft WBS to team members and others to sanity check the contents, and identify additional work. Ultimately the WBS should take into account information from:
   - other team members
   - other project managers who have done similar work
   - previous project reviews
   - other appropriate groups
   - expert opinion (MAYBE Linda our Librarian?)
5) Get the feedback and incorporate it into the WBS—this will also take place in our next meeting with the client.
6) Review the updated WBS with the team and determine whether you're ready to proceed to the next step by assigning resources to the tasks in the WBS (i.e., which pages will individual members check-out and work on?).

How Far to Go: How Much Detail is Enough?

The ultimate goal in breaking the work tasks down is to ensure that all of the work that is needed to meet the project's objectives is recognized and planned for accurately from the beginning.

The level to which you break down elements of your WBS may result in some tasks having less detail and longer duration, if the work in that area is clearly understood and represents well-known work in which the team is experienced and successful.

- ☐ **One owner per task:** The tasks must be defined such that they can be assigned to one person who will be doing that work.
- ☐ **Clear measurable deliverable with measurement specified:** The tasks must be defined such that the task owner can be given completion criteria that are clear and measurable.
- ☐ **Small enough task duration for tracking:** Task duration at lowest level should be less than 5% of total project time, to ensure visibility into task progress, at a small enough resolution to recognize quickly if the project is off track (e.g. 2 weeks if 1 year; 2 days if 2 months).

  Greater levels of detail are generally required for projects which are:

  - larger
  - more risky
  - dissimilar to past projects
  - difficult to define (susceptible to change)
  - performed by internal work groups
  - planned for the near future

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The WBS will continue to be updated during the Plan and Schedule development process; generally as the process goes forward, additional tasks come to light and must be incorporated into the WBS.

The checklist below will help the team know that a WBS has been created that forms a sound basis for the project's schedule going forward.

WBS Completion Checklist (ANSWER ALL BELOW)

Appropriate level of detail: Continue to break the work down until a task list is developed which meets the following criteria:

- ☐ one (and only one) owner can be assigned to each of the lowest level tasks
- ☐ clearly defined outputs are evident for each task
- ☐ quality can be monitored through performance criteria associated with each output
- ☐ the tasks communicate the work to be accomplished to the person who is accountable
- ☐ the likelihood that a task is omitted or work flow forgotten is minimized
- ☐ each task is well enough defined and small enough so that estimates of duration are credible
- ☐ the project is broken down to the level at which you want to track

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Below is what you will be delivering to the client during your next in-person meeting.

Website Development WBS

1. **Website Project**

    - **1.1. Design Tasks**
        - **1.1.1. Web User Interface**
            - 1.1.1.1. Functional Specifications
            - 1.1.1.2. Technical Specifications
        - **1.1.2. Google App Engine**
            - 1.1.2.1. Engine setup Instructions
            - 1.1.2.2. Engine classes and components
            - 1.1.2.3. Engine project file structure
        - **1.1.3. Interfaces**
            - 1.1.3.1. Tech specification interfaces
        - **1.1.4. Reports**
            - 1.1.4.1. Functional Specifications
                - 1.1.4.1.1. Collect User Requirements
                - 1.1.4.1.1.1. Define Data elements
                - 1.1.4.1.1.2. Define Frequency
                - 1.1.4.1.1.3. Define Audience
    - **1.2. Development**
        - **1.2.1. Web Front End**
            - 1.2.1.1. Web Page design/functionality
        - **1.2.2. Interfaces**
            - 1.2.2.1. Incorporating interfaces
        - **1.2.3. Reports**
            - 1.2.3.1. Code Reports
    - **1.3. APPENDICES**
        - 1.3.1. Appendix A: Functionality Table
        - 1.3.2. Appendix B: Current Site Map
        - 1.3.3. Appendix C: Proposed Site Map
        - 1.3.4. Appendix D: Team Spreadsheet (Team Members' Name, Phase Manager Position, and Contact Info)

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1.1 Design Task

Task given to team for web site design and layout. This provides an overview of the website's design and how it process.

1.1.1 Web User Interface

1.1.1.1 Functional Specifications

The web user interface is the application front end from which a user can submit files to be processed. The main function of the user interface is to allow a file to be uploaded to the website and to be processed. Once uploaded, the server will handle necessary processing and will display the results to the user in the same location as the upload form. This is the main specification for the web user interface.

See Web interface for uploading below

1.1.1.2 Technical Specifications

The web user interface will be hosted on the wasc website on Oucampus. The back end of the program will be hosted on the google app engine. The upload form will be a portal through iframe directly to the google app engine. This upload form will be embedded in a page on the wasc

website. Data handling and processing will not be done on the wasc website.

Example of possible upload form:

```
function upld()
{
	document.getElementById('file_upload_form').onsubmit=function()
		{
		document.getElementById('file_upload_form').target = 'iFrame_name';
	}
}
window.onload=upld;
```

1.1.2 Google App Engine

1.1.2.1 Engine Setup Instructions

1.1.2.1.1 Project Prerequisites:

a. Download and install Google App Engine SDK for Java from https://developers.google.com/appengine/downloads#Google_App_Engine_SDK_for_Java
b. Download and install Eclipse IDE
c. Download and install git

1.1.2.1.2 Clone WASC-Engine Project:

Git clone https://github.com/tstullich/WASC-Engine.git, or navigate to https://github.com/tstullich/WASC-Engine and click on ZIP to download without git

1.1.2.1.3 Test Project:

a. Import WASC-Engine into Eclipse: file → import → existing projects into workspace
b. Make sure you are using the package: com.sjsu.wasc engine and not the default package
c. Run on gae: run → run as: Web Application
d. Wait for the project to compile and display information in the console
e. Navigate web browser to localhost:8888 and ensure the page is visible

1.1.2.2 Engine Classes and Components:

1.1.2.2.1 WASC_EngineServlet.java:

a. The main class for the project. It starts a server that listens on port 8888 for an HTTP Request and listens for an attempt to upload a PDF file. It will then use the PDFExtract class to convert the given PDF file to a ArrayList containing the list of words given in the PDF input. The ArrayList is then fed into the KeywordAnalyzer class for analysis and a final score will be calculated and displayed on the webpage.
b. Author: Tim Stullich
c. Methods:

```
public void doGet(HttpServletRequest req, HttpServletResponse resp)
throws IOException:
```

The main method: handles listening for a connection request and returns data in the form of a JSON stream.
d. How to write to web page:

Use the HTTPServletReponse resp to write back to the browser.
Call resp.getWriter().println("Data here") ;

1.1.2.2.2 PDFExtract.java:

a. Responsible for parsing a PDF file and returning an ArrayList containing the list of words in the file
b. Author: Akshat Kukreti
c. Methods:

```
public static ArrayList<String> convertToText(String filename)
throws DocumentException, IOException
```

1. Input: filename of PDF file
2. Output: ArrayList containing list of words

1.1.2.2.3 KeywordAnalyzer.java:

a. A KeywordAnalyzer that is capable of performing keyword statistical analysis on text. Calling parseText multiple times without a reset will continuously build word counts. Also, multiple keyword files can be read into the tree.
b. Author: Michael Riha
c. Public Methods:

```
public KeywordAnalyzer()
public void reset()
public void purgeKeywords()
public void readKeywordFile(String filename) throws FileNotFoundException,
IOException
public void parseText(ArrayList<String> words)
public double[] calculateScores()
public static double calculateScore(int weightOneCount, int weightTwoCount,
int totalWordCount)
public int getKeywordOccurrences(String keyword)
public SortedSet<String>[][] getKeywordsUsed()
public double[] getScores()
public int[][] getWordCounts()
public int getTotalWords()
```

1.1.2.2.4 PrefixTree.java:

a. A PrefixTree to store keywords. Keywords have their corresponding weights, rubric, and how many times they have been found stored in the leaf nodes
b. Author: Michael Riha
c. Public Methods:

```
public PrefixTree()
public boolean add(String word, int weight, int rubric)
public Node find(String word)
public Node findNoIncrement(String word)
public void reset()
```

d. Inner classes:

```
public class Node
```

1.1.2.3 Engine Project File structure

1.1.2.3.1 WASC-Engine: project root

- src: all the sources for the classes go here
  - package: com.sjsu.wascengine
- App Engine SDK
- JRE system library
- lib
  - gson
  - itextpdf
- war
  - WEB-INF: this is the root directory for the website
    - appengine-generated
    - lib
    - testfiles: contains test PDF inputs
    - index.html: this is the main webpage

1.1.3 Interfaces

1.1.3.1 Tech Specification Interfaces

As of the current status of the program, we expect to use a JSON interface to send result data back to the wasc front end user interface. Information for using JSON can be found at http://www.json.org/javadoc/org/json/JSONObject.html

1.1.4.Reports

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Reports would include following listed: These reports would be available in their respective pages of the section of the WASC Essay No.2 project website as seen below:

5 rubrics/ proficiency
Searched keywords
Their count and points based on the 5 proficiency
Phase I documentations
Gannt Chart
Phase II documentations
WBS
Phase III-V development plan
Java/Tool documentations

5 rubrics/ proficiency would be downloadable in pdf form in Documentation page of website under WASC Essay no.2 project (See appendices)

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Critical Thinking VALUE Rubric

for more information, please contact value@aacu.org

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Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that across all disciplines, begins habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply these habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that call across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- Ambiguity: Information that may be interpreted in more than one way.
- Assumptions: Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionaryreference.com/browse/assumptions)
- Context: The historical, ethical, political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- Literal meaning: Interpretation of information exactly as stated. For example, "she was given with every" would be interpreted to mean that her skin was given.
- Metaphor: Information that is intended to be interpreted in a non-literal way. For example, "she was given with every" is intended to convey an intensity of emotion, not a skin color.

Critical Thinking VALUE Rubric

for more information, please contact value@aacu.org

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a score to each sample or collection of work that does not meet benchmark (1) or higher performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Explanation of Issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or background information incomplete.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *(Selecting and using information to investigate a point of view or conclusion)*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a comprehensive analysis or synthesis. Viewpoints of experts are taken as fact, without question.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Other points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Other points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Other points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusion and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logical and is a logic of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are oversimplified.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

Information Literacy VALUE Rubric

for more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - Adopted from the National Forum on Information Literacy

Framing Language

This rubric is recommended for use evaluating a collection of work, rather than a single work sample in order to fully gauge students' information skills. Ideally, a collection of work would contain a wide variety of different types of work and might include: research papers, editorials, speeches, grant proposals, marketing or business plans, PowerPoint presentations, posters, literature reviews, position papers, and argument critiques to name a few. In addition, a description of the assignments with the instructions that initiated the student work would be vital in providing the complete context for the work. Although a student's final work may stand on its own, evidence of a student's research and information gathering processes, such as a research journal/diary could provide further demonstration of a student's information proficiency and for some criteria on this rubric would be required.

Information Literacy VALUE Rubric

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The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - The National Forum on Information Literacy

Evaluators are encouraged to assign a score to each sample or collection of work that does not meet benchmark (1) or higher performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Determine the Extent of Information Needed	Effectively defines the scope of the research question or thesis. Effectively determines key concepts. Types of information (sources) selected relate to the concepts or answer research question.	Effectively defines the scope of the research question or thesis. Effectively determine key concepts. Types of information (sources) selected relate to the concepts or answer research question.	Defines the scope of the research question or thesis. Defines key concepts. Types of information (sources) selected relate to the concepts or answer research question.	Has difficulty defining the scope of the research question or thesis. Has difficulty determining key concepts. Types of information (sources) selected do not relate to the concepts or answer research question.
Access the Needed Information	Accesses information using effective, well defined search strategies and/or accesses information from relevant sources.	Accesses information using many of search strategies and some relevant sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, uses several sources from limited and/or inappropriate sources.	Accesses information using trial-and-error strategies and from the Internet as the initial and/or only source. Information is not evaluated.
Evaluate Information and its Sources Critically	Thoroughly (systematically and methodically) analyzes information from relevant sources. Demonstrates ability to refine the relevance of sources when performing a search.	Adequately analyzes information from relevant sources. Demonstrates ability to refine the relevance of sources when performing a search.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Use Information Effectively to Accomplish a Specific Purpose	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth.	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources. The intended purpose is achieved.	Communicates information from sources. The information is fragmented and/or poorly organized (e.g. ideas are not connected in a meaningful way) or the intended purpose is not achieved.
Access and Use Information Ethically and Legally	Students use essentially all of the following information access and use laws of relevance and ethics: Accurately cite, paraphrase, or quote; Attribute ideas to their creator; Avoid plagiarism; Use fair use or original source; Distinguishing between common knowledge and ideas requiring attribution; and demonstrate a full understanding of the relevant legal concepts in the use of published, unpublished, and/or proprietary information.	Students use essentially three of the following information access and use laws of relevance and ethics: Accurately cite, paraphrase, or quote; Attribute ideas to their creator; Avoid plagiarism; Use fair use or original source; distinguishing between common knowledge and ideas requiring attribution; and demonstrate a full understanding of the relevant legal concepts in the use of published, unpublished, and/or proprietary information.	Students use essentially two of the following information access and use laws of relevance and ethics: Accurately cite, paraphrase, or quote; Attribute ideas to their creator; Avoid plagiarism; Use fair use or original source; distinguishing between common knowledge and ideas requiring attribution; and demonstrate a full understanding of the relevant legal concepts in the use of published, unpublished, and/or proprietary information.	Students use essentially one of the following information access and use laws of relevance and ethics: Accurately cite, paraphrase, or quote; Attribute ideas to their creator; Avoid plagiarism; Use fair use or original source; distinguishing between common knowledge and ideas requiring attribution; and demonstrate a full understanding of the relevant legal concepts in the use of published, unpublished, and/or proprietary information.

Oral Communication VALUE Rubric

for more information, please contact value@aacu.org

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This type of oral communication most likely to be included in a collection of student work is an oral presentation and therefore is the focus for the application of this rubric.

Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listener's attitudes, values, beliefs, or behaviors.

Framing Language

Oral communication takes many forms. This rubric is specifically designed to evaluate oral presentations of a single speaker at a time and is best applied to live or video-recorded presentations. For panel presentations or group presentations, it is recommended that each speaker be evaluated separately. This rubric best applies to presentations of sufficient length such that a central message is conveyed. Supporting material may or more forms of supporting materials and includes a purposeful organization. An oral answer to a single question not designed to be structured into a presentation does not readily apply to this rubric.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- Central message: The main point/thesis/"bottom line"/"take-away" of a presentation. A clear central message is easy to identify, a compelling central message is also vivid and memorable.
- Delivery techniques: Posture, gestures, eye contact, and use of the voice. Delivery techniques enhance the effectiveness of the presentation when the speaker stands and moves with authority, looks more often at the audience than at his/her speaking materials/notes, uses the voice expressively and uses low-vocal fillers ("um," "uh," "like," "you know" etc.).
- Language: Vocabulary/terminology and sentence structure. Language that supports the effectiveness of a presentation is appropriate to the topic and audience, grammatical, clear, and free from bias. Language that enhances the effectiveness of a presentation is also vivid, imaginative, and expressive.
- Organization: The grouping and sequencing of ideas and supporting material in a presentation. An organizational pattern that supports the effectiveness of a presentation typically includes an introduction, one or more identifiable sections in the body of the speech, and a conclusion, an organizational pattern that enhances the effectiveness of the presentation reflects a purposeful choice among possible alternatives, such as a chronological pattern, a problem-solution pattern, an analysis-of-parts pattern, etc., that makes the content of the presentation easier to follow and more likely to accomplish its purpose.
- Supporting material: Explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities, and other kinds of information or analysis that support the principal ideas of the presentation. Supporting material is generally credible when it is relevant and derived from reliable and appropriate sources. Supporting material is highly credible when it is also vivid and varied across the types listed above (e.g., a mix of examples, statistics, and references to authorities). Supporting material may also serve the purpose of establishing the speaker's credibility. For example, in presenting a creative work such as a dramatic reading of Shakespeare, supporting evidence may not advance the idea of Shakespeare, but rather serve to establish the speaker as a credible Shakespeare actor.

Oral Communication VALUE Rubric

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Definition

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Evaluators are encouraged to assign a score to each sample or collection of work that does not meet benchmark (1) or higher performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillfully sustained throughout the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is inconsistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body) is not observable within the presentation.
Language	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gestures, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gestures, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears confident.	Delivery techniques (posture, gestures, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears uncertain.	Delivery techniques (posture, gestures, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message	Central message is compelling (precisely stated, appropriately focused, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is "habit of mind," competency and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Quantitative Literacy across the Disciplines

Current trends in general education reform demonstrate that faculty are recognizing the vitality or growing importance of Quantitative Literacy (QL) in an increasingly quantitative and data-driven world. AAC&U's recent surveys employers suggest that employers want graduates who, in pursuing any field, have developed a certain level of high-level quantitative skills to complete their work responsibly and effectively. Virtually all of today's students, regardless of career choice, will need basic QL skills such as the ability to draw information from charts, graphs, and geometric figures, and the ability to accurately complete straightforward estimations and calculations.

Preliminary efforts to find student work products which demonstrate QL skills proved a challenge in this rubric creation process. It's possible to find pages of mathematical problems, but what those problems mean does demonstrate whether the student was able to think critically or analytically about the meaning of the real world. This problem is frequently the case when faculty attempt to find student work that will provide evidence that shows the evidence to new benefit of the thinking was done by the original source (often carefully chosen by the paper and how much was done by the student herself, or whether she/he chose those from a plethora of the source material are even accurate.

Given widespread agreement about the importance of QL to increase incentives on faculty to develop new kinds of assignments which give students substantive, contextual, and experience in using such skills as analyzing quantitative information, representing quantitative information in appropriate forms, completing calculations to answer meaningful questions, making judgments based on quantitative data and communicating the results of that work for various purposes and audiences. As students gain experience with these skills, faculty must develop assignments that require students to create work products which reveal their thought processes and demonstrate the range of their QL skills.

This rubric provides for faculty a definition for QL and a rubric describing four levels of QL achievement which might be observed in work products within work samples or collections of work. Members of AAC&U's rubric development team for QL hope that these materials will aid in the assessment of QL – that, equally important, we hope that they will help institutions and individuals in the effort to more thoroughly embed QL across the curriculum of college and universities.

Framing Language

This rubric has been designed for the evaluation of work that addresses quantitative literacy (QL) in a substantive way. QL is not just computation, nor just the citing of numerical data. QL is a habit of mind, a way of thinking about the world that relies on the analysis of data to make connections and draw conclusions. Teaching QL requires us to design assignments that address authentic, data-based problems. Such assignments may call for the traditional written paper, but we can imagine other alternatives: a video or a PowerPoint presentation, perhaps, or a well designed series of web pages. In any case, a powerful demonstration of QL will place the mathematical work in the context of a full and informed discussion of the underlying issue addressed by the assignment.

Finally, QL skills can be applied to a wide array of problems of varying difficulty and broaching the size of this rubric. For example, the same student might demonstrate high levels of QL achievement when working on a simplistic problem and low levels of QL achievement when working on a very complex problem. Thus, to accurately assess a student's QL achievement it maybe necessary to measure QL achievement within the context of problem complexity much as it does to develop comparisons where two scores are given, one for the difficulty of the task, and the other for the skill in accomplishing the task. In this context, the student might earn giving one score for the complexity of the problem and another score for the QL achievement in solving the problem.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is "habit of mind," competency and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a score to each sample or collection of work that does not meet benchmark (1) or higher performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Interpretation *(Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words))*	Provides accurate explanations of all information presented in mathematical forms. Makes appropriate inferences based from the information or calculations.	Provides accurate explanations of almost all information presented in mathematical forms. Makes accurate inferences based from the information.	Provides accurate explanations of most of information presented in mathematical forms. Makes inferences based from the information.	Attempts to explain information presented in mathematical forms, but drawing accurate conclusions based from the information is more difficult. Makes minor errors in explanations of information.
Representation *(Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words))*	Skillfully converts relevant information into an appropriate and clearly articulated form.	Competently converts relevant information into an appropriate and clearly articulated form.	Converts relevant information in various ways but has difficulty in explaining the meaning of the converted information.	Converts information in only one way and has difficulty explaining the meaning of the converted information.
Calculation	Calculations are complete and essentially all are error-free. Calculations are clearly connected to the problem they are intended to solve.	Calculations are complete and essentially all are error-free. Calculations are clearly connected to the problem they are intended to solve.	Calculations are complete but contain a few errors. Calculations are connected to the problem they are intended to solve.	Calculations are attempted but are both incomplete and contain several errors. Calculations are only loosely connected to the problem they are intended to solve.
Application / Analysis *(Ability to make and support reasoned arguments or decisions, making, and data analysis)*	Uses the quantitative analysis of data as the basis for deeply reasoned arguments or decisions (or draws reasonable and insightful conclusions from data) and anticipates counter-arguments.	Uses the quantitative analysis of data as the basis for competently reasoned arguments or decisions (or draws reasonable and appropriately qualified conclusions from data).	Uses the quantitative analysis of data as the basis for tentative, plausible arguments or decisions (or draws plausible conclusions from data).	Uses the quantitative analysis of data as the basis for weakly reasoned arguments or decisions (or draws questionable conclusions from data).
Assumptions *(Ability to make and support reasoned assumptions in calculation, making, and data analysis)*	Explicitly identifies assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that conclusions are based on how one chooses to interpret the underlying data.	Explicitly identifies assumptions and provides some explanation for why each assumption is appropriate.	Implicitly identifies assumptions and provides some explanation for why each assumption is appropriate.	Attempts to identify assumptions.
Communication *(Expressing quantitative evidence in support of the argument or purpose of the work (presented in any medium) and adapting the presentation to the audience, purpose, and circumstances)*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explains it with exceptional clarity.	Uses quantitative information, but does not sufficiently connect it to the argument or purpose of the work.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Attempts to use quantitative information, but doesn't understand how it relates to the argument or purpose of the work.

Written Communication VALUE Rubric

for more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing text, data, and images. Written communication develops through iterative experience across the curriculum.

Framing Language

This writing rubric is designed for use in a wide variety of educational institutions. There are clear challenges in the application of research on writing assessment to the fact writing assessments are locally determined and sensitive to local context and mission. Some of the rubric detail, in the end, consider making adaptations and additions that clearly link the language of the rubric to individual, campus contexts.

This rubric focuses assessment on how specific written work samples or collections of work respond to specific contexts. The central question guiding the rubric is "Given what this writing expects to do, how well does it do it?" In focusing on that question the rubric does not intend to either ignore or minimize the importance of writing prior to the final product, cases of writing process, writing strategies, writers' literacy with different modes of textual production or participation, or writers' growing engagement with writing and disciplinarity through the process of writing.

Evaluators using this rubric must have well-articulated ideas about assignments or purposes for writing guiding writers' work. Also recommended is including, reflective work samples of collections of work that address such questions as: What decisions did the writer make about audience, purpose, and genre as they put together the work in the portfolio? How did the writer develop the ideas presented in the writing – is the work organized and structured in ways appropriate for the genre, purpose of more expectations for ideas or hypotheses, expectations for kinds of evidence and support that are appropriate to the task at hand, use of primary and secondary sources to provide evidence and support arguments and to document which perspectives on the topic. Writers will incorporate sources according to disciplinary and genre conventions, according to the writer's purpose for the work. Through meaningful engagement with sources, writers develop an ability to differentiate between their own ideas and the ideas of others, credit and build upon work already accomplished in the field or even they are addressing, and provide meaningful examples to readers.

- Evidence: Information that is used to attend to, or persuade, a specific audience with a specific purpose.
- Genre conventions: Formal and informal rules for particular kinds of texts and/or media that guide formatting, organization, and stylistic choices, e.g. lab reports, academic papers, poetry, webpages, or presentation slides.
- Sources: Texts (written, oral, behavioral, visual, or other) that writers draw on to draw work for a variety of purposes – to extend, argue with, develop, define, or shape their ideas, for example.

Written Communication VALUE Rubric

for more information, please contact value@aacu.org

Definition

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing text, data, and images. Written communication develops through iterative experience across the curriculum.

Evaluators are encouraged to assign a score to each sample or collection of work that does not meet benchmark (1) or higher performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Context of and Purpose for Writing *(Includes consideration of audience, purpose, and the circumstances surrounding the writing task(s))*	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., begins to show awareness that audience shapes word choice).	Demonstrates awareness of context, audience, purpose, and to the assigned task(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned task(s) (e.g., expectations of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions *(Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).*	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) (including organization, content, presentation, formatting, and stylistic choices)	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s) (including organization, content, presentation, and stylistic choices)	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the genre and discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are appropriate for the genre and discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses sophisticated language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

Searched keywords

Keywords given by client, see Keyword Rubrics
Searched keywords example, after a scanned pdf programming plan see below

Their count and points based on the 5 proficiency, search keywords is shown, counts, as well as the document/pdf score

```
Keywords from keywords.txt used in test2.pdf: 52
Total Weight 1 Keywords: 17
Total Weight 2 Keywords: 35
Total words:2716

Rubric 1
  Weight 1 keywords used: 8
     apply 1 issues 7
  Weight 2 keywords used: 9
     analysis 3 evaluated 2 evaluation 2 evaluations 2 reflect 1
synthesized 1

Rubric 2
  Weight 1 keywords used: 7
     context 2 organized 1 summary 4
  Weight 2 keywords used: 14
     information 2 research 12

Rubric 3
  Weight 1 keywords used: 2
     paper 1 thesis 1
  Weight 2 keywords used: 4
     writing 4

Rubric 4
  Weight 1 keywords used: 0

  Weight 2 keywords used: 1
     present 1

Rubric 5
  Weight 1 keywords used: 0

  Weight 2 keywords used: 7
     data 7

Scores: 4.27 4.81 1.35 0.17 1.18 2.36
```

Phase I documentations(Project Analysis) , Gannt Chart , Phase II documentations (Design Worksheet), WBS , Phase III-V development plan, and Java/Tool documentations would be downloadable as seen below

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*note: Java/Tool documentation can also be seen inside java source file with their
respective authors

1.1.4.1 Functional Specifications

a. Manual functional and readable document, PDF (only)
b. Program Plan Scanner page (inside an iframe)
upload a file using submit button
results shown at same page
c. Limitations
no graphs and no use of google analytics

WASC PROJECTS
SAN JOSÉ STATE UNIVERSITY
Search SJSU
About WASC Projects WASC Projects 5 Proficiencies Project Documentation Program Plan Scanner
ShareThis
SJSU Home > WASC Projects > Program Plan Scanner
Program Plan Scanner
INSTRUCTIONS
Please submit departmental program plan(s) using the form below and click submit.
Navigate
BACK to WASC Projects
Filename: Choose File No file chosen
Submit
Thank you for using our Program Plan Scanner.
Click here to use again
Discover Future Students Current Students Faculty & Staff Alumni & Community | Budget Central
A-Z Index Academics Bookstore Calendars & Events Employment & Careers Directory King Library Parking, Transportation & Maps

WASC PROJECTS
SAN JOSÉ STATE UNIVERSITY
Search SJSU
About WASC Projects WASC Projects 5 Proficiencies Project Documentation Program Plan Scanner
ShareThis
SJSU Home > WASC Projects > Program Plan Scanner
Program Plan Scanner
INSTRUCTIONS
Please submit departmental program plan(s) using the form below and click submit.
Navigate
BACK to WASC Projects
[
{
"fileName": "",
"totalKeywords": 0,
"weight1Keywords": 0,
"weight2Keywords": 0,
"totalWords": 0,
"rubricScores": [
{
"rubric1score": 0.0,
"weight1WordsUsed": 0,
"words1Frequency": [],
"weight2WordsUsed": 0,
"words2Frequency": []
},
{
Thank you for using our Program Plan Scanner.
Click here to use again
Discover Future Students Current Students Faculty & Staff Alumni & Community | Budget Central
A-Z Index Academics Bookstore Calendars & Events Employment & Careers Directory King Library Parking, Transportation & Maps

1.1.4.1.1Collect User Requirements

1.1.4.1.1.1 Define Data elements

The data elements are the key words extracted from the 5 rubrics which are used to evaluate the documents. The keywords are categorized into 3 levels with 3 different weights. Let's take oral communication rubric for example.

This is oral communication rubric which we obtained from our client Dr. Todd.

ORAL COMMUNICATION VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introductionand conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable and compelling and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis which minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.

As a specialist, Dr. Todd extracted deliver, present, message, speaking, speech, support, credibility and style out as keywords and divided them into 2 levels. Including other words which are not keywords, we have three levels totally. Deliver, present, message, speaking and speech are in the first level and weighed 1 point. Support, credibility and style are in the second level and weighed 0.5 point. Other words weighed 0 point.

1.1.4.1.1.2 Define Frequency

Frequency is the amount of times a keyword had appeared in the document. If there are 3 "deliver", 5 "present" and 2 "support" in the document, the frequencies of "deliver", "present" and "support" are 3, 5 and 2, separately.

1.1.4.1.1.3 Define Audience

a. WASC administrators

b. Faculty members that hold programming plans from their respective departments.
c. Teams for the next part of this project which requires the documentation of the java program as well as instructions of what has been done in this previous project.
d. All public school institutions

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1.2 Development

1.2.1 Web Front End

1.2.1.1 Web Page Design/Functionality

The front end will display a brief prompt asking the user to select a file in pdf format which will then be sent to our Google Application in order to analyze the text.

Website ----> Upload File --- > Google Server (App Engine) ---> Java App ---- > Website ----> Result page

After the application is finished with calculating the necessary data the front end will display this data in a neat column format and provide the user with an option to save the data in a csv (comma separated values) file.

ex. (snippet)
document score : 4.27, 4.81, 1.35 , 0.17, 1.18, 2.36

1.2.2 Interfaces

1.2.2.1 Incorporating Interfaces

An interface might be used to allow for more types of documents to be read into our file (only PDF at the moment) reader in order to process them. These interfaces will be defined within the PrefixTree class and can be implemented depending on how the developer sees fit. This way different files will be able to be read in and processed.

Prefix Tree (snippet)

```
public boolean add(String word, int weight, int rubric)
   { … }
public Node find(String word)
   { … }
public Node findNoIncrement(String word)
   { … }
```

1.2.3 Reports

1.2.3.1 Code Reports

Code Reports will consist of in-line comments that can be found within the source code for our application as well as further documentation in the form of a proper Java Doc file. The links to various documentations is on WASC site.

WASC
> Project Documentations
> > Java Docs
> > Phase Docs

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1.3 APPENDICES

1.3.1 Appendix A: Functionality Table

San Jose State University WASC Projects	About WASC Proj	WASC projects	5 profeciencies	Project Documentations	Program Plan Scanner
	Introduction	Essay No.2	Critical Thinking	Java Application	upload program file and download the results
	goals		Critical Thinking Rubric	Phases documentation Fall 2012 (phase1, WBS, phase2, Phase3-5)	
			Information Literacy		
			Information Literacy Rubric		
			Oral Communication		
	outcome		Oral Communication Rubric		
			Quantitative Literacy		
			Quantitative Literacy Rubric		
			Written Communication		
			Written Communication rubric		
		Lit Review			

1.3.2 Appendix B: Current Site Map

San Jose State University WASC Projects (BEFORE)
Home WASC Projects (http://dev.sjsu.edu/wascproj)

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1.3.3 Appendix C: Proposed Site Map

San Jose State University WASC Projects (AFTER)
Home http://dev.sjsu.edu/wascproj/

SITE MAP

About WASC Proj
Goals
Outcomes

WASC PROJECTS
WASC ESSAY No. 2
LIT REVIEW (see Lit Review Team Documentations)

5 Proficiencies
Critical Thinking
Information Literacy
Oral Communication
Quantitative Literacy

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Written Communication

Project Documentation
WASC Essay No.2
Java Scanner
Project Phase Documents
Phase 1 Action Plan
WBS
Phase 2 Design Worksheet
Phase 3 – 5 Development Plan
Lit Review (see Lit Review Team Documentations)

Programing Plan Scanner

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1.3.4 Appendix D: Team Spreadsheet (Team Members' Name, Phase Manager Position, and Contact Info)

Name	Position	Email
Akshat Kukreti	Phase 1 scrum master	akshatkukreti@gmail.com
Charles Long	Phase 5 scrum master	chars.long@gmail.com
Chunbo Tan	Phase 4 scrum master	chunbo.tan@students.sjsu.edu
Edward Ciotic	Phase 3 scrum master	ciotic@gmail.com
Ezekiel Calubaquib	Phase 5 scrum master	ezekit@yahoo.com
Michael Keats	Phase 3 scrum master	michaelkeats@gmail.com
Michael Riha	Phase 4 scrum master	rihamichael@gmail.com
Tim Stullich	Phase 3 scrum master	timstullich@gmail.com
Wanzhen Wu	Phase 2 scrum master	wanzhen719@gmail.com

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