University of Washington Bothell
CSS 566: Software Management
Spring 2017
Research Paper

Purpose

This research paper requires the student to demonstrate a deep and broad understanding of the body of knowledge of software management (SM) and to connect it to their experiences in the CSS 566 group product development project.

The student will discover, read, learn and apply theories, principles, and practices that cover the breadth of SM. The references listed on the [Course Syllabus](#) are an optional starting place for the research; it is expected that each student to find and include material from other sources as well.

The research paper will be produced in an iterative manner, with several CR/NC submissions during the quarter so that students can learn from and adapt to formative feedback on several drafts). It is expected that the vision of the research paper will change substantially the quarter progresses, and the best papers will result from students agilely adapt as they learn.

Description

Choose an area of software management that is of particular interest to you. One can consult the Project Management Body of Knowledge (PMBOK) or other sources for ideas. But do not limit yourself to the PMBOK as SM is a large, experimental and growing field. For instance, one could research the usage and layout of office space relative to productivity. Or, one could deep dive into queuing theory and how it relates to software management. Or, how software engineering has been impacted by Cloud based delivery.

The research paper should thoroughly cover the area(s) and relate it clearly to practical examples including the CSS 566 development project.

Doing research requires three interwoven activities:

1.   **Reading | Discussing** theories, principles, and practices that relate to the work you are doing (your group project). Reading provides ideas about new ways of thinking and doing.

2.   **Doing:** using the theories, principles, and practices from your readings as you do the work of the group project. Doing allows you to engage an idea from your reading to see how it actually works (or not) within a particular context. Doing also expose many other questions, issues, problems, insights, connections, and confusions that may provoke more reading.
3.   **Writing | Reflecting** about the multitude of questions, issues, problems, insights, connections, and confusions that arise. Writing can often resolve a frustration or confusion, uncover new insights, or uncover new options. Writing also requires the writer to synthesize, which helps the writer more deeply learn about the phenomenon about which they are writing.

Assessment

The grade for the research project will be assigned based upon the instructor and grader's summative assessment of the final version.

The paper should be 5-10 pages in length.

Excellent papers will:

- Explicitly connect a wide variety of SM theories, principles, and practices to your personal experiences in the CSS 566 group project.
- Connect to pragmatic examples in real world situations. These can be uncovered directly by you (personal experience, interviews of professionals, etc..) or through case studies.
- Support all assertions with evidence and examples.
- Include SM theories, principles, and practices that YOU have uncovered in your literature research from reputable sources, such as academic articles, books, blogs, and videos.
- Synthesize the material in a novel way that demonstrates a higher-level understanding than simply describing the body of knowledge.
- Be professionally written and structured.
- Include and make effective use of illustrations, diagrams, and figures.
- Conform to the [ACM SIG Proceedings Template](). This means formatting the references appropriately; see this University of New Hampshire page for examples of the [ACM Style]().