Curriculum Reflection Questions for Sr. Projects Post-Mortem Discussions

These questions are to provide qualitative information about our degree program. We collect information about our program on a regular basis to determine how well we are meeting our students’ needs. During the process of reflecting on Senior Projects is an excellent time to collect valuable information.

The questions below are intended to spark discussion. As part of a post-mortem discussion by the team, sponsors, and faculty coach, please gather and discuss answers to these categories of questions and other topics you feel are appropriate. The project team will act as the scribe during the discussion, and provide a summary of the discussion to the faculty coach with the Final Team Self-Assessment at the end of the project. We encourage the sponsor to be part of this post-mortem project reflection. The sponsor may provide the faculty coach with an independent submission, if necessary.

1. To what degree do you think the senior project course helped the members of the project team better prepare themselves for professional practice? What worked and what did not?

The senior project course has definitely helped the members of the project team and prepared them for the professional world. It was a great experience, since it gave us full control over the project to determine the direction and make major decisions that would impact the final result of the project. For most of us, this was the first time we were actually able to work with a customer(s) on a project. Most of us, have worked for larger companies, where tasks were delegated to us and we didn’t get to discuss things with the customer or negotiate requirements and other aspects of the project. As a result, this was a really great experience for us.

Some things that worked really well were having weekly discussions with more than one sponsor. A lot of the times, the other sponsors would chime in on a particular discussion because they had particular knowledge on the subject. Also, our team members were another part of our success. None of us slacked off and as a result, we were able to stay on schedule and met all of our requirements.

There really wasn’t much that didn’t go well. The only thing that was maybe a little shaky was eliciting requirements, but that’s just a normal part of the software engineering process and also very reflective of challenges we are likely to face in the real/professional world.

2. What technical resources (or skills, training, tools) were missing that would have helped make the senior project experience more successful?

Some technical skills that were missing would have been more web and database technologies. These skills and technologies were used heavily in our project, and outside of a few of us, that had picked up these skills and experience from our co-ops or from course work outside of the SE curriculum, we wouldn’t have had the necessary knowledge to be as successful as we were. We feel, that these web technologies and integration with databases, should be emphasized more and should be a part of most of the SE curriculum, since this is the future of the business.

3. Did the team possess adequate management and process skills (team building, planning, risk management, change management, process definition and tracking, etc.) to carry out the project? If not, what were the results or how did you mitigate the problem?

Overall, the team did have adequate skills in this area. Having an awareness of a broad spectrum of possible project management strategies and methodologies was definitely helpful. Also, the fact that we had a team member that has experience working as a project manager with Microsoft, and is going to be starting his career as a project manager with Microsoft, he brought a great perspective and skill set for helping us manage our project. Additionally, all of the classes that we have taken, have had a fair bit of project management involved, so this gave us the adequate skills necessary. However, the team would have benefited from having more information on the tools available for managing projects and how to set up/ start a project process since it took the team a little while to start working within a well defined process. We took a great deal of time figuring out what technology to use and getting these technologies setup for the team. If we had more experience, knowledge, or even some suggestions as to what tools we should try, that would have been a great help.

4. Did the team possess adequate technical skills (requirements, design, coding, testing, quality reviews, etc.) to carry out the project? If not, what were the results or how did you mitigate the problem?

In terms of requirements, design, and coding, our team had the skills necessary to get the job done, and to get it done right. This was one of the reasons that we enjoyed so much success on our project. We were able to elicit requirements really well, which fed into our design. Then our designs, made coding everything, very straight forward and helped contribute to our success. Although, there was some churning in the beginning of the project, this is pretty normal for a project this size. We believe that it only seemed like churning, because our team was so used to the quarter system, and we thought it should have progressed faster, but from a real world perspective, this was very normal.

5. **Student team**: What sort of "real-world" problems did you incur, unexpectedly?

There we a few “real-world” problems that our team incurred during this project:

* Having to adjust the scheduling/assignment of tasks when one of the team members got in a car accident
* Setting up an ad-hoc private network for our final project demonstration since internet access was not going to be available
* Having to work with technologies that no one had any experience with (Zebra, NHibernate), and having to gain the knowledge and skills to produce a professional grade solution.

6. **Student team**: What were the significant issues, good and bad, that you found while completing the Final Team Self-Assessment?

N/A.

7. **Sponsor**: What sort of "academic-world" problems did you incur, unexpectedly?

N/A

8. What advice would you give to future teams, sponsors, and faculty coaches to help them be successful?

* Define your team process as quickly as possible and start following it
* Actively manage your project tasks and schedule and use a methodology and tools which will allow you to easily detect schedule slippages and make changes/corrections accordingly
* Setup well-defined milestones over the course of the project which include showing the current status of the product to the sponsor; weekly status reports were also very helpful for maintaining visibility to the sponsor
* Do not rush to coding/implementation: make sure your project requirements are well defined and create a detailed system design, risk list, and test plan before you start writing code. Making a high-level project schedule once the requirements and design are defined is also a great idea.

9. What advice would you give the department of software engineering in regards to the senior projects course?

* Make sure that the teams have the freedom to fully take ownership of the project
* Make the second semester of senior project more like a master’s thesis/capstone course/academic co-op so that the teams can focus entirely on their senior project just like if it were a normal real-world project
* Continue to do projects with Wegman’s; the sponsor team was really great to work throughout the entire project