

M2-Understand the Problem

Project Title:

MyStatus (Redesign of Graduate Student Status)

Users

Primary Users

The main users are graduate students at Iowa State University, no matter how many majors they are pursuing, whether they are thesis or non-thesis students, whether they are online or on campus students.

Secondary Users

The secondary users are faculty and staff who need to instruct their students. For example, the advisors of graduate students need to use Graduate Student Status to know their studying progress so that they know how to give them useful instructions.

The Focus of the Study

The focus of this study is the overall graduate students. Although secondary stakeholders are faculties and staffs, some other people can be influenced such as IT staff who work on this system, the most popular user group are graduate students. Since they interact with this system most often, and it is critically important for them to be on top of all the process and paperwork of graduation. The three users used to understand the problem are three graduate students in different majors. The ways to interact with them are interviews and observations. They were asked to perform the tasks and used think out loud technique (Dix, Finlay, Abowd, & Beale, 2007) to speak out what are their pain points using this web page.

User Tasks

The three users all perform the tasks in safe and quiet classrooms or labs. The first task they were asked to do was to go to their graduate student status page, check their major, department, graduation information, etc. To do this task, they need to login to their Accessplus and click on the graduate student status page. Then they need to look at the page to find the information all about their academic information, graduation, etc. The second task was to check or fill out POSC form. They go to the POS form by clicking on the “POSC Form” button. The third task was to check or apply for graduation. Upon the requirement shown in the front page whether they need to apply for graduation based on the deadline in the specific semester, they can decide if they just want to check the status of their graduation application or go ahead to fill out the graduation application form. In order to further understand the task, the hierarchical task analysis (Muth, Glynn, Britton, & Graves, 1988) was used to analyze the tasks. The flows of each of the task can be seen in Figure 1, Figure 2 and Figure 3.

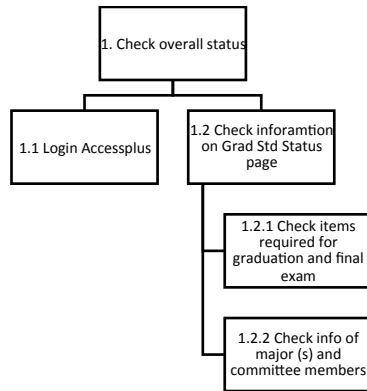


Figure 1 Hierarchical Task Analysis (Task 1)

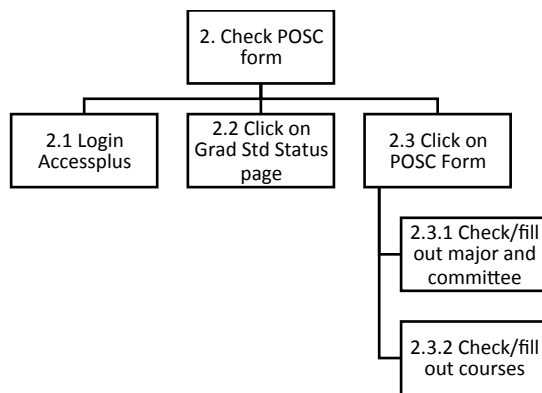


Figure 2 Hierarchical Task Analysis (Task 2)

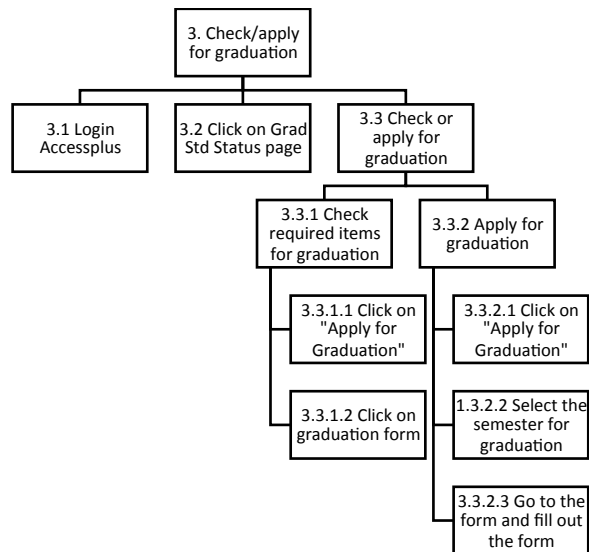


Figure 3 Hierarchical Task Analysis (Task 3)

Analysis

The users went through the tasks on the current graduate student status page and performed the task of checking their overall graduation information status and the subsidiary tasks such as checking or applying for graduation and checking or filling out their POS form.

Through this process, users were requested to speak out what they were thinking when they were doing the task. I was observing them at the same time. Upon the completion of the tasks, an interview was conducted to ask more detail questions about the breakdowns while performing tasks. These are the general problems or breakdowns that I identified through the whole process.

- The current status page (see Figure 4) sometimes can confuse students by not emphasizing the things they need to do. Meanwhile, as the green and orange colors are in use for a large area, it could distract users from knowing which they should focus on and which has already been taken care. Especially for green red color blind people, it may pose further vision difficulty for them.

Graduate Student Status

Next Degree

Jingyu Liu

Required to Apply for Graduation

All the items below need to be done before Applying for Graduation.

Status:

OK - Active

Admission Type:

OK - Full

GPA:

OK - 3.76

Met English Requirement?

OK - Pass

POSC Approved by Deadline:

OK - Approved June 2014

Graduation Application Submitted

OK - Spring 2016

Apply for Graduation

Alerts

None

Dept, Major, and Minor Information

Dept: Industrial and Manufacturing Systems Engineering

Major: Industrial Engineering

Degree Currently Sought: Master of Science

Thesis: Required

Credits Earned in Graduate Status: 44.00

First Registered: Fall 2013

Graduation Application: Spring 2016

Required to take Final Exam

All the items below need to be done before Applying for your Final Exam.

GPA of at least 3.00?

OK - 3.76

Currently Registered?

YES

Incompletes, Non Reports & Fs on Transcript

OK

Below C on POSC

OK

Completed or Enrolled in POSC Courses?

OK

No Overage Courses on POSC?

OK

POSC Approval?

OK - Approved June 2014

Final Oral Exam Scheduled

OK - Requested final for 11/19/2015

Final Graduation Checks

Report of Final Oral

NO - Requested final for 11/19/2015

Conditions on Final Oral Removed

OK

Graduation Approval Slip Submitted

NO

POSC

My POSC Form

My Program Audit

Committee Members

GILBERT STEPHEN

IMSE

MAJOR PROFESSOR

DORNEICH MICHAEL

IMSE

COMMITTEE MEMBER

HEGELHEIMER VOLKER H

ENGL

COMMITTEE MEMBER

Career Development Tools

Professional Development

Individual Development Plan

ISU Career Services

If any of the requirements for Final Exam have not been met, Graduation can be canceled.

Figure 4 Graduate Student Status Page

- The presentation of the “second major” is so easy to be ignored. Students who have more than one major don’t know where to check their second major.
- Users can not know whether they’ve already completed their POS form from the grad student status page. They can only click in to check it status.

- Users' status of graduation is confusing on the graduation application page (Figure 6). They are not sure whether they've successfully applied for graduation.

The screenshot shows the 'Grad Student Status' page. On the left is a navigation menu with links like 'Application', 'Account/U-Bill', 'Address Change', etc. The main content area is titled 'Application for Graduation'. It includes a 'Select a term' dropdown menu with 'Ph.D. or Masters Spring 2016' selected, a 'Submit' button, and a confirmation message: 'Your Application for Graduation has been submitted and is now on file for the terms listed above.' Below this are three bullet points providing instructions on withdrawing an application.

Figure 5 Graduation Application Page

- The current POS form (Figure 6) is not very clear. There is too much information on the POS form. Users don't know what they should focus on.

The screenshot shows the 'POS Form' page. It has a red header with 'Grad Student Status' and a search bar. Below the header, it says 'Record Found'. The form is titled 'POS Form' and includes a 'SAVE OFTEN (form times out every 15 minutes)' warning. The form contains several sections: 'Name' (LIU JINGYU), 'Status' (POSC approved December 18, 2015), 'Current Graduate Degree' (Degree Sought: MS, Concurrent: Y), 'Department' (IMSE), 'Major Code' (I E), 'Area of Specialization' (Industrial Engineering - No area of specialization), '1st Major' (Industrial and Manufacturing Systems Engineering), 'Co-Major', '1st Minor', '2nd Minor', 'Modify Degree Program' (Degree Sought: MS, Options: Thesis), and 'Major and Area of Specialization' (Industrial Engineering - No area of specialization). There are also dropdown menus for '1st Minor' and '2nd Minor'.

Figure 6 POS form page

- At the same time, the courses and research credit classifications are not displayed well. Also, selecting the course in order to fill out POS form from the drop down menu takes a lot of effort and time. It should be simplified to save time.

Collectively, the current page is comparatively confusing and could better assist students during their studies, and even pose more stress for students who are busy preparing for graduation. The users I interviewed reflected it is hard to use or it made them even more confused about their graduation status. It's not beneficial to remind them their status and check whether their actions

were successfully updated. The strategy to address this problem is to redesign the graduate student status page called MyStatus that can solve the problems aforementioned and to make it a more consolidated and usable tool for students, faculty and staff.

Measures

Due to users' completely different status of their study progress, it would be very difficult to compare across the time durations for different users using this page. For example, some users have only one major and others are pursuing double majors, their time of filling out their POS form differ significantly. Also different users have very different courses and departments as well as majors. Additionally, due to the same reason that each user's situation is very different, the time or clicks completing the tasks between the current page and the new page is not comparable.

So it is important that the tasks be completed successfully without obvious time wasted. Usability will be the main measurement, which will be measured by System Usability Scale (SUS) (Sauro, 2011), a simple, ten-item attitude Likert scale giving a global view of subjective assessments of usability, and Net Promoter Score (Garrity, 2010), a management tool that can be used to gauge the loyalty of a firm's customer relationships.

References

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