IPRO 320 Final Report
Fall 2008

Teacher Knowledge Share: A Professional Networking Site for Chicago Area Teachers

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ABSTRACT

Teachers face several pressures on a daily basis. Because of this, they require a venue where they can conveniently share information in order to better perform the task of educating the future leaders of our country. The goal of IPRO 320 is to create an online professional network for teachers ranging from kindergarten through twelfth grade to allow for the sharing of ideas, lesson plans, and other professionally relevant information. In order to achieve this, IPRO 320 conducted focus groups, surveys, and research into the problems teachers face, and how an online professional network can address these problems. The feedback generated from the focus groups and surveys was utilized to develop the website.

BACKGROUND

A. The target user bases for our online teacher network are Chicago area schoolteachers, from both the Chicago Public School system and the local parochial schools. CPS has over 600 schools and 435,000 students. CPS students have consistently performed poorly on standardized tests and have a significantly lower college graduation rate than the national average. This project will provide an opportunity for teachers to learn from others by sharing their resources and experience concerning effective practices.

B. The Internet seems to be the best technology to use to construct an online network that will improve teacher communication. Several computer programming tools such as CMS will help to construct the website that will contain this network.

C. Last semester's IPRO 320 group created a functional website for professional networking, though we chose to improve upon it this semester. The website was not user-friendly and did not have enough features to be considered an adequate networking tool for teachers. They also experienced great difficulty in obtaining research. Surveys were sent via mass e-mail to several teachers to ask them what they would like to see in a teacher networking website, but very few responded. This lack of good research hindered the attempts of last semester's IPRO to create a finished product. This semester's IPRO strove to ensure the acquisition of better research data in order to come up with a finished product.

OBJECTIVES

A. To create a new and functional website that will serve the purpose of being an online community for teachers. This website will include such things as forums, an online user supplemented knowledge management system, and personal profiles for each teacher.

B. To meet with teachers from two different schools and, in addition, gain

feedback from retired teachers in order to receive and analyze their input on the website and design the website to meet all of their specific needs.

C. To hold a broad survey including at least 1,000 invitations to teachers in order to get further feedback and improve the website we construct to the best of our ability.

D. To make the website more successful than last semester's prototype by making key changes such as a more aesthetically pleasing format, a better logo, and a more user-friendly orientation.

METHODOLOGY

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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A. Details of Work Breakdown Structure:

1.1   Research Phase

1.1.1   Online Research

1.1.1.1 View current:

1.1.1.1.1   Professional networking sites

1.1.1.1.2   Teacher networking sites

1.1.1.1.3   IPRO 320's old site

1.1.2   Focus Group #1 (Deerfield High School)

1.1.2.1 Contact 3 schools to find go-to person

1.1.2.2 Create invitations for focus group

1.1.2.3 Send out invitations for focus group

1.1.2.4 Determine meeting times for each school

1.1.2.5 Send follow-up emails/phone calls/invitations for focus group

1.1.2.6 Create list of questions to guide discussion based on teachers' struggles and where they currently turn to for support and ideas

1.1.2.7 Hold focus group #1 (Deerfield)

1.1.2.8 Draw conclusions from Deerfield focus group

1.1.2.9 Send feedback to Technical Team

1.1.2.10 Send thank-you letters to participants

1.1.3   Focus Group #2 (Queen of Peace)

1.1.3.1 Obtain nonfunctional website mock-up from Technical Team

1.1.3.2 Contact go-to people at 3 schools to inform them of follow-up focus group #2

1.1.3.3 Create invitations for focus group #2

1.1.3.4 Send out invitations for focus group #2

1.1.3.5 Contact previous participants to commit their participation in focus group #2

1.1.3.6 Determine meeting times for each school

1.1.3.7 Send follow-up emails/phone calls/invitations for focus group #2

1.1.3.8 Create list of questions to guide discussion based on reception of mock-up

website

1.1.3.9 Hold focus group #2

1.1.3.10 Draw conclusions from focus group #2

1.1.3.11 Send feedback to technical team

1.1.3.12 Send thank-you letters to participants

1.1.4 Retired Teachers Association of Chicago (RTAC) Survey

1.1.4.1 Contact RTAC

1.1.4.2 Create RTAC Survey

1.1.4.3 Attend RTAC meeting, passing out surveys

1.1.4.4 Draw conclusions from results

1.1.4.5 Send feedback to technical team

1.1.5 Broad multimedia-based survey

1.1.5.1 Obtain new version of alpha site from technical team

1.1.5.2 Create flash tutorials/feature overviews

1.1.5.3 Write survey questions

1.1.5.4 Create survey website.

1.1.5.5 Distribute the URL of the survey to teachers

1.1.5.6 Analyze survey results

1.1.5.7 Draw conclusions from survey.

1.1.5.8 Send feedback to technical team.

1.2 Programming Phase

1.2.1 Create feature list from focus group #1 input

1.2.2 Create Non-functional (PowerPoint) Mockup

1.2.3 Review feedback from focus group #2

1.2.4 Create design document

1.3.7.5 Team structure and assignments

1.3.7.6 Budget

1.3.7.7 Results

1.3.7.8 Obstacles

1.3.7.9 Recommendations

1.3.7.10 References

1.3.7.11 Resources

1.3.7.12 Acknowledgments

B. Although we had to delay the first focus group by about a week (due to the time required to find participants), it did not noticeably affect the rest of the team's progress. The one significant change that was made was to create a broad multimedia-based survey, as the team felt that this would give potential users of the site a better idea of how the site would work as well as provide us with valuable feedback.

C. The following two pages are the Queen of Peace Survey and the RTAC Luncheon Survey respectively.

    a. Queen of Peace Survey Questions

        i. On a scale of 1 to 7, 1 being not true at all and 7 being very accurate, how true is the statement teachers don't receive as much feedback and assistance as they would like at times?

        ii. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, would you explore other teachers' lesson plans before devising your own, if such lesson plans were available?

        iii. On a scale of 1 to 7, 1 being not important at all and 7 being very important, please rate how important it is for teachers to have a place to communicate with other teachers and receive feedback?

        iv. On a scale of 1 to 7, 1 being not interested at all and 7 being very interested, how interested are you with the idea of creating your blogs for people to read?

        v. On a scale of 1 to 7, 1 being not interested at all and 7 being very interested, how interested are you with the idea of reading other peoples' blogs?

        vi. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, how likely are you to use the calendar to find events and conferences to attend?

        vii. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, how likely are you to sign up and confirm your attendance for specific events posted?

viii. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, how likely are you to check the current headlines featured when visiting the site?

ix. On a scale of 1 to 7, 1 being not comfortable at all and 7 being very comfortable, how comfortable would you be to enter some information into your profile?

x. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, how likely are you to use this website?

xi. On a scale of 1 to 7, 1 being not likely at all and 7 being very likely, how likely are you to visit the site at least once a week?

We are students at Illinois Institute of Technology, creating an online professional network for schoolteachers in Illinois. We are looking for your input to create the most efficient site possible.
Thank you for your help.

D. Are you currently teaching? If no, how long ago did you retire?

      Yes   No

E. What subjects have you taught or are currently teaching?

F. What grade level(s) have you taught?

Elementary School   Middle School   High School

G. I communicate with other teachers: (Please circle all that apply)
   A. Only within my school
   B. Within my district
   C. Nationwide/Worldwide
   D. Using websites (please write them in below)
   E. Through going to professional conferences and workshops

H. How likely are you to explore other teachers' lesson plans before devising your own, if such lesson plans were available?

      Not likely   Neutral   Very likely

I. How important is it for teachers to have a place to communicate with other teachers and receive feedback?

      Not important   Neutral   Very important

J. How likely are you to use a calendar feature listing all academic events and conferences being hosted around the country?

      Not likely   Neutral   Very likely

K. If you are retired, would you be interested in assisting with the moderation of the website by monitoring the material submitted?

      Yes   No

L. What websites have you used to prepare for classes?

M. How much and what kind of information would you put in a user profile for the website?
   E. No profile
   F. Just professional information (for example, subject and grade level taught)
   G. Just personal information
   H. Professional and personal information

TEAM STUCTURE AND ASSIGNMENTS

Name	Skills & Strengths	Experience & Academic Interest
Bern, David	Good foundation in computer programming.	Worked with technology setups for teachers
Bochantin, Marike	Administrative, networking and organizational skills.	Founded and spearheaded the Alumni program at her NROTC unit.
Hartline, Julian	Extensive programming in several languages.	
McCall, Ian	Java, perl, PHP, SQL, AJAX, Databases, Linux, etc.	Leadership experience including Eagle Scout, Order of the Arrow Brotherhood.
Mick, Emily	Reading, time management, prioritizing and collaboration.	Collaborative skills from working in labs & restaurants.
Peake, Andrew	Variety of topics within computer science and programming background.	Previous IRPO involving creating similar networking for teachers.
Pierce, Alison	Excellent team collaboration skills.	Member of various teams for several years.
Pindrik, Dmitriy	Confident speaker & presenter. Java, PHP/MySQL, Flash, XHTML/CSS.	Several years of web development and sever-side maintenance.
Quinn, Michael	Several years of various programming languages.	
Stanford, Carly	Team collaboration skills as well as strong writing skills.	Interested in public administration and social affairs.
Tilatti, Michael		

Name	Major, Year	Team	Additional Roles
Bern, David	BME, 3rd	Research & Web Development	
Bochantin, Marike	Psychology & Humanities, 4th	IPRO Team Leader	Master Schedule Maker
Hartline, Julian	CS, 3rd	Web Development	
McCall, Ian	CS, 4th	Web Development Sub-Team Leader	
Mick, Emily	Chemistry, 4th	Research	Schedule contact for Focus group scheduling
Peake, Andrew	CS, 4th	Web Development	Minute Taker
Pierce, Alison	Psychology, 3rd	Research	Invitation Maker
Pindrik, Dmitriy	CS, 3rd	Web Development	
Quinn, Michael	CS, 3rd	Web Development	
Stanford, Carly	Political Science, 4th	Research	
Tilatti, Michael	Aerospace, 4th	Research Sub-Team Leader	

IPRO 320 Team

Team Leader: Bochantin, Marijke

Research Sub team	Development Sub team
Leaders-
Michael, Tilatti	McCall, Ian
Mick, Emily	Hartline, Julian
Pierce, Alison	Peake, Andrew
Stanford, Carly	Pindrik, Dmitriy
Bern, David	Quinn, Michael
	Bern, David

B. The time of student team members:

User	Total Time Spent
Total	550.0
Carly Stanford	39.5
Michael Tilatti	29.5
Ian McCall	52.5
Andrew Peake	38.2

User	Total Time Spent
David Bern	32.8
Emily Mick	47.4
Alison Pierce	44.4
Dmitriy Pindrik	73.8
Michael Quinn	46.8
Marijke Bochantin	69.1
Julian Hartline	76.5

BUDGET

Item	Unit Price	Qty	Total Price	Purpose
Web Hosting	$85.50	1	$85.50	To host the website.
Domain Name	$10.00	1	$10.00	To register a domain name for the website for a period of one year.
Printing	$0.00	1	$0.00	Covered by IPRO office.
Food	$50.00	1	$50.00	To provide teachers with snacks at the Deerfield Focus Group.
Transportation	$30.00	1	$30.00	Cost of travel to Deerfield Focus Group.
Total Costs Incurred this Semester			**$175.50**	

   A. Money expended on team activities:
      o Supplies ($10): for purchasing a domain name for our website.
      o Equipment ($150): for purchasing a web hosting.
      o Services ($100): for general printing throughout the semester.
      o Travel ($50): for travel outside the Chicago city limits to visit schools for focus groups.
      o Participant support ($400): for providing teachers with snacks in turn for their participation in our focus groups.

RESEARCH

In order to gauge interest in a site such as Teacher Knowledge Share, as well as to determine which features were important to teachers, we held a focus group at Deerfield High School, distributed surveys at Queen of Peace, the Retired Teachers Association of Chicago, and created an online video survey.

Queen of Peace

According to the results of the survey given to the teachers at Queen of Peace, they overwhelmingly agree (34 to 1) that it is important for them to have a place to receive feedback on their lesson plans and other volunteered information. They are also likely to both look at use lesson plans and the calendar feature, with 28 in favor and 7 against both issues.

The results also strongly indicate that teachers have very little interest in creating a blog- 29 of the 35 respondents were opposed to the idea, 18 strongly so. The results also indicate that teachers would be uncomfortable with entering personal information into their profile, but not entirely opposed to doing so; as a solution we chose to make it optional. Overall, the majority of the teachers surveyed were somewhat likely to use the site based on the information presented.

While most of the questions had no obvious correlation with each other, there were a few interesting trends. Firstly, those who are more likely to read other teachers' blog posts were generally more prone to state that they were likely to use the site. This could be because those teachers may know what a blog is, as opposed to less internet-savvy teachers, causing them to weigh the presence of blogs more in their response for their likelihood to use the site.

Another interesting correlation was that teachers who were more comfortable entering information into their profile were much more likely to use the site. This may reflect the teachers' understanding of or comfort with the internet; that is, teachers who are comfortable using the internet are both more likely to enter information into their profile and more likely to use a particular website.

Retired Teachers' Association of Chicago

The survey of RTAC members was, due to the nature of the group surveyed, significantly skewed toward teachers who are retired (37 to 2). The teachers whom we surveyed taught a reasonably representative variety of grade levels.

Most of the teachers surveyed considered it very important to communicate with other teachers (32 of 36 that responded). The majority of the respondents (21 of 39) stated that they attended conferences to communicate with other teachers. On the other hand, only 7 teachers used the internet as a method of communication. Based on the question concerning methods of communication the teachers who communicated in any form outside of their school district considered communicating with teachers to be important.

Due to the retired status of most teachers at the RTAC luncheon, they were not particularly likely to use the website for viewing lesson plans. However, the majority of respondents (21 of 35), said that they would be very likely to use a calendar.

Website

Based on the results of our research, we constructed a fully functional website to meet teachers needs to the best of our abilities in the time available. To make the site aesthetically pleasing, we created a new logo and chose a more attractive theme for the site. The following is a screenshot of the site:

OBSTACLES ENCOUNTERED

A. One of the obstacles we encountered was finding research participants. Finding teachers with available time to meet with us for focus groups was challenging, and we had to rely on personal contacts after contacting eight different schools.
B. Another difficulty the team encountered was obtaining IIT IRB approval. We missed the deadline to submit the forms initially due to time constraints, and are still currently waiting for approval despite using expedited forms.
C. In developing the website, a few minor difficulties were encountered in programming our desired features. In order to include RSS Feeds to news sources such as CNN.com on our website, permission had to be obtained from the host site. It was difficult to get a response from such a big site because of the large volume of emails they get every day. It was also important for our website to have proper copyright and privacy policies in order to protect the intellectual property of users. Such copyright and privacy policies had to be researched and developed.
D. All of our obstacles encountered were overcome or adequately addressed. Because it was difficult to find teachers to participate in our research, we used a student's past high school as a resource for our first focus group. We used our professor's connection to another high school as a resource for our second focus group. We utilized a gathering of retired teachers to spark interest within the retired teaching community as well as to get their feedback. Though the IIT IRB approvals have not been received, we realized the importance of submitting the requests and are waiting for the results. Our website difficulties have been addressed as well. Many of the minor problems in our website have been fixed as a result of keeping a running bug list and constantly updating the website. CNN.com has been contacted in order to receive permission to include their RSS Feed on our website. Although we are waiting to gain their approval, the inclusion of their feed should be acceptable because we are a noncommercial website. In reference to protecting the intellectual property of users, we have created both a copyright and a privacy policy that users must agree to upon registering for our website and uploading lesson plans.
E. The only obstacle that could have been prevented was that of gaining IIT IRB approval. Though we set up our focus groups at the last minute due to difficulties in coordinating participation, we should have submitted the requests earlier.
F. Depending on how the website develops in the future, future teams will have to continually be aware of and critical of our copyright and privacy policies. In order to protect the intellectual property of users, these policies must be adapted to encompass any changes made to the website.

RECOMMENDATIONS

Future IPRO groups will need to focus on adding new features, improving the user experience, and performing usability research. Furthermore, some features, such as Events, will need to be expanded. Future groups will also want to focus on expanding the user base and possibly drawing up a business plan to support the site's operation.

Additionally, feedback from counselors and administrators suggests that future groups may want to look into creating parallel administrator and counselor knowledge share sites.

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