

IPRO 317 Final Report  
Spring 2011

Developing Pervasive Training for all  
Employees of any Company



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## **1.0 Abstract**

The aim of this project is to provide a training program that is a cheap, accessible, and self-awareness based training for company employees. Training, today, is often a hassle and something that is an inconvenience for both the employees and the employers. Pervasive training not only saves the company money, but it saves the employees the hassle of having to take time off work and going to some random place for training. Corporate training sometimes does not apply to each person, can be boring, and time consuming for that employee.

This semester, IPRO 317 compiled all the information that is used in various training programs to develop a training program that is easy for companies to acquire and easy for the employees to use.

## **2.0 Background and Objective**

The problem that this IPRO is addressing is that of the need for corporate training. This concept allows companies to put their employees through training by making them self-aware. This method of training also enables employers to train their employees with minimal disruption to productivity. Our intention is to implement this training through the employee's hand held devices. By placing the training program on their hand held devices it reduces the cost of off-site training. This also reduces the time needed for training. The messages that are sent to their hand held devices will be short excerpts, which are able to be read in a few minutes.

Most training programs are specifically designed for the corporate heads or leadership. The people such as the supervisor and management are the only ones benefiting from these programs. We are making a program that is accessible, and beneficial, to all levels of a company. The range of people

this could work for is from the lowest levels, janitors, to the highest levels, CEO. This training program is specifically targeted to the individual, and their training needs.

The customers for our project are, simply, any employees of any company. Our training program has an adaptability that allows it to cater to any employee's position. As previously stated, the program is intended to allow companies to train every one of their employees and not just those in management. This system provides training with much less overhead than previous models. Therefore, companies train their employees at a fraction of the cost with limited loss of production.

As this is a new concept there are not many places that we could pull information from. The only existing technology we have to go off is other training programs. These training programs were helpful to look at for ideas but did not follow the same strategies that we are planning on using. We had to take the information that was given to us and spin it into something that was viable for our concept. We are creating something that is original with new technology and psychology.

### **3.0 Organization and Approach**

In order to achieve the goal of creating pervasive training there were a few things we had to do. We had to meet as a group and brainstorm ideas, especially since this was a completely new concept. Steve Stanard had already come up with a rough concept before our IPRO started. Our IPRO expanded off of Stanard's ideas to make it more efficient, and user friendly. Once we had brainstormed we were ready to start the project. To get this project done we split into two groups: the Research Team and Development Team.

From our research team we hope to derive a set of themes by which to rate the employee as well as survey questions. The employee, as well as their coworkers, will be taking the survey questions for

the employee. These survey questions will lead to is a group of teachable moments, or training nuggets. These moments will be reminders for the employee based upon the results of their surveys. Once this system is derived the research team will begin a search for appropriate test organizations for us to run our trials on.

While this is being done our development team will build a website to distribute and compile these surveys. This site will also send out our teachable moments and maintain this data. All of this will be done on a desktop computer that will be converted into a server. Once testing begins, this team will be responsible for assisting the test users in the survey and teaching process. These team members will provide support for any issues the users will have as well as for maintaining the website integrity during this process.

#### **4. Analysis and Findings**

Through the analysis of confidential documents, as supplied by Professor Steve Stanard, we were able to cross reference between 360 analyses, surveys, and other materials to formulate key themes and abilities that could cross job boundaries so that this training could be available to anybody in any position. For example, communication is needed by everybody. We were able to highlight some essential features of communication, regardless of your job position, and focus in on your ability to communicate effectively or not. From there, nuggets would be sent to you based on your surveyed ability to do this one part of communication effectively.

Major accomplishments by the project team include creating a web-space, from scratch, to effectively showcase the Pervasive Training program. All of the databasing was created by the project team as was the layout for the website. Although the website needs tweaking, it is effectively the same

as doing some body work on a car.

Innovative approaches came when we began on the development of the website. Brainstorming sessions were conducted to figure out the web-layout and the format of the program. Questions we asked of ourselves included, “How can we make it applicable to everybody?”, “What steps are needed to make this a successful program?”, “How should the program be structured?”, etc. It was through these sessions that we were able to come to what we currently have as a website and a program specifically tailored to the individual.

## **5. Conclusions and Recommendations**

Over the course of this semester long IPRO and working on Pervasive Training, it can be concluded that we are on our way to finishing, what could be, a market changing product. There is still work to be done. Supplying more themes and questions to the surveys, adding many more nuggets of information to the database, and a cleaner GUI/ website layout could be implemented. If we had more time and our job was to be strictly dedicated to this, we could accomplish these things ourselves - but there is only so much that can be done over a semester.

Working on the previously mentioned items would be the recommended next steps to take. After getting form and functionality of the website desired, internal testing is advocated. Then, small market testing to firms and corporations should be done in order to see what their opinions and feelings on the program are and make the necessary changes. Meanwhile, continue developing new nuggets of information and questions for the surveys so that the program is repeatable for corporations that wish to go through it more than once.

**6. Appendices****Project Budget**

<b>Category</b>	<b>Cost</b>	<b>Description</b>
Hardware	\$500	Acquire sufficient computer hardware
Software	\$200	Acquire needed computer software
IPRO Day	\$150	Purchase needed IPRO Day supplies
Total	\$850	

**Designation of Roles**

**Project Manager:** Ismail Hassan. This position is responsible for creation of the project plan and ensuring the project stays on task. This individual is also responsible for ensuring communications between the two working groups of the project. Additionally this person is responsible for the timeline and agenda of team meetings.

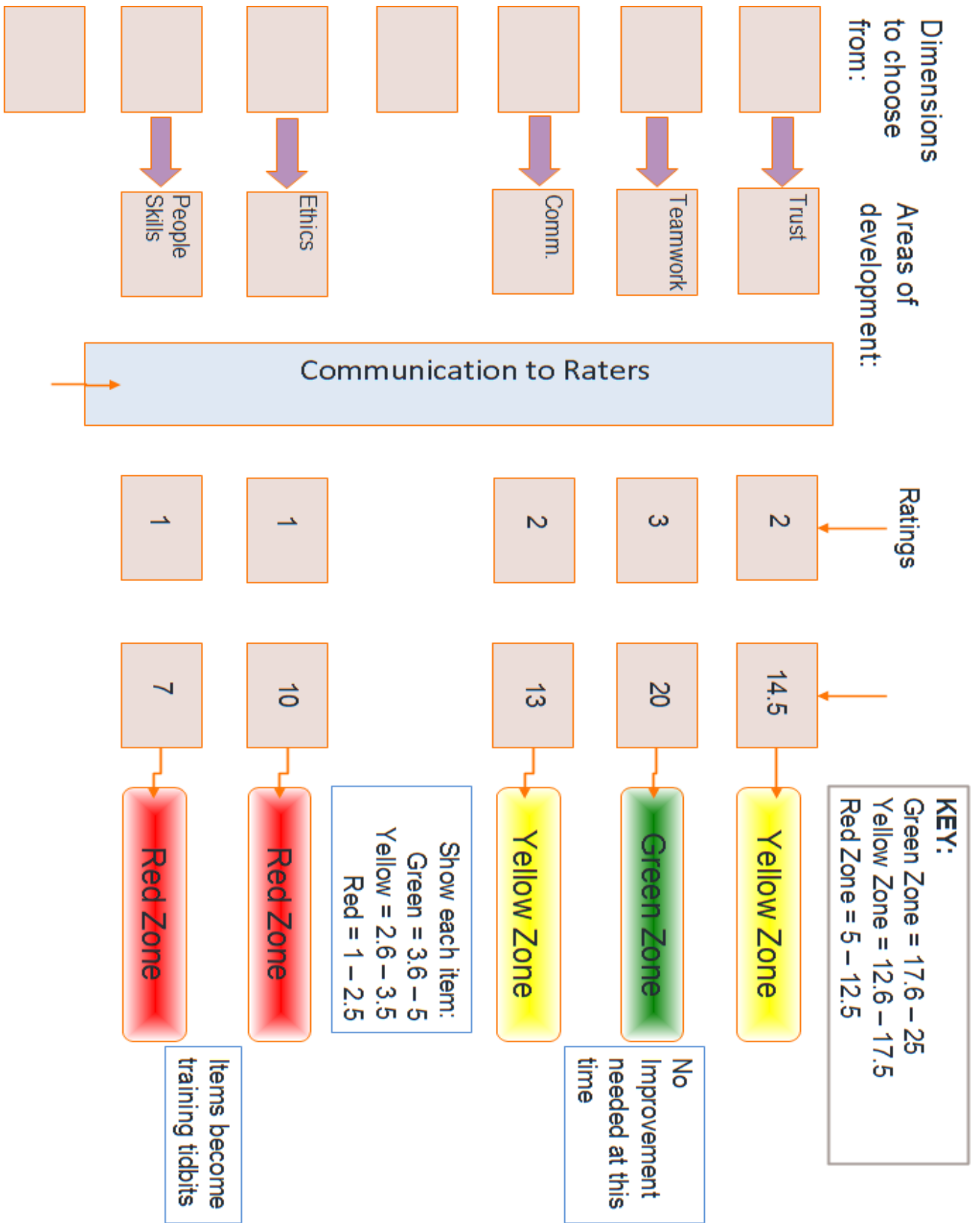
**Minute Taker:** Preston Bailey. This individual will be responsible for keeping meeting notes up to date and available to all team members.

**Group Leaders:** Paul Orawiec & Sravya Dasari. These individuals are responsible for their respective team's progress. They will control their team deadlines and meetings. Additionally they will be responsible for weekly updates to the project manager on any developments regarding their progress.

<b>IPRO 317 Team Roster</b>		
<b>Team member Name</b>	<b>Major</b>	<b>Contact Information</b>
Preston Bailey	Applied Mathematics	815-214-8487 pbailey@iit.edu
Noelle Bennett	Psychology	Nbennett2@iit.edu
Mark Callan	ITM	847-508-8938 Mcallan118@gmail.com
Andrew Cho	Mechanical Engineer	Shift6shift6kr@gmail.com
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Archana Singh	CPE	Archana.singh90@gmail.com

<b>Team Skills information</b>			
<b>Member Name</b>	<b>Related skills</b>	<b>Weaknesses</b>	
Preston Bailey	Psychology	Technical understanding	Project development
Noelle Bennett	Teamwork	leadership	leadership
Mark Callan	Project development	psychology	Teamwork and web development
Andrew Cho	N/A	Team skills	Team skills
Sravya Dasari	Programming and research development	Communication and presentation skills	Presentation skills
Ismail Hassan	Web design, programming, Windows Server and project management	Research and documentation	Research skills
Michael Lutgendorf	Web development, project management and hardware	Coding	N/A
George Noorts	Programming, servers, web development	Teamwork	Teamwork and programming
Paul Orawiec	I/O experience, organization assessment and training tools	Programming	Programming
Nana Peprah	Database and web design	Web application	Web application
Swathi Reddy	Research and programming	Web design	Web design
Syeda Fatima Rizvi	N/A	Team skills	Team skills
Archana Singh	Knowledge of computers and hand held devices	Team skills and time management	Team skills and time management





*I PRO 317: Pervasive Training website: [ipro317.ipro.iit.edu](http://ipro317.ipro.iit.edu)*

Thank you Steve Stanard, Megan Wheeler, and DJ Sergent for their knowledge in Industrial-Organizational Psychology. Their hard work and persistence advanced the development of this program.