



# Aging in Place

Illinois Institute of Technology

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## I. TEAM CHARTER

### A. Team Roster

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Brian Kibbe	<a href="mailto:bkibbe@iit.edu">bkibbe@iit.edu</a>
Joseph Klimek	<a href="mailto:jklimek@iit.edu">jklimek@iit.edu</a>
Jamie Mitchell	<a href="mailto:jmitch11@iit.edu">jmitch11@iit.edu</a>
Rebecca Morgan	<a href="mailto:rmorgan3@iit.edu">rmorgan3@iit.edu</a>
Angelina Papazova	<a href="mailto:apapazov@iit.edu">apapazov@iit.edu</a>
Keyur Patel	<a href="mailto:kpate44@iit.edu">kpate44@iit.edu</a>
Salma Salih	<a href="mailto:ssalih@iit.edu">ssalih@iit.edu</a>
Michael Sanders	<a href="mailto:msander6@iit.edu">msander6@iit.edu</a>
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### B. Team Member Strengths, Needs, and Expectations

See Appendix A

### C. Team Identity

**Name** – IPRO 360 Aging in Place

**Motto** – Improving the lives of senior citizens through independent living.



## **II. TEAM PURPOSE AND OBJECTIVES**

### **1. Purpose**

The purpose of this IPRO 360, Spring 2011, is to research and identify the significant problems encountered by the elderly in their everyday lives. This IPRO will create a foundation for the development and refinement of possible solutions for future IPRO semesters in conjunction with the Chamberlain Group. To be successful, this IPRO must create a simple, meaningful problem statement that can guide Chamberlain Group and future IPROs toward actually providing solutions for helping the elderly age in place.

### **2. Objectives**

- Achieve optimum work product for the semester through collaboration with the sponsor
- Learn and understand the needs of the aging population and those individuals associated with their support and care
- Identify the problems that most affect aging in place
- Identify solutions that address these problems and would make aging in place a safe and viable option
- Work efficiently as a team to complete our tasks in a timely and organized fashion
- Be dedicated, honest, respectful and willing to work with fellow team members
- Practice giving and receiving constructive criticism

## **III. BACKGROUND**

### **1. Sponsor Information**

The Chamberlain Group, our sponsor, is the world's largest manufacturer of residential and commercial remote controls, wireless keypads, gate operators, and various electronic parts. Working under the ownership umbrella of the Duchossois Group, The Chamberlain Group provides access to convenient products and services for homes and businesses worldwide. These businesses include: The Chamberlain Group, Chamberlain Manufacturing Company, AMX LLC, HealthCo, Milestone AV Technologies, Brivo, Duchossois Capital Partners, and Duchossois Technology Partners. IPRO 360 recognizes this advantage will help open up possibilities as we consider solutions to the problems we have identified.

After speaking to Brent Freese, Director of the Advanced Development, the team gained a greater understanding of what is expected of us from the Chamberlain Group. The group is expected to explore and learn more about the elderly, think of multiple possible solutions to the problems that affect them, and create a well researched and detailed problem statement. The baseline work will be done by the IPRO group. It will direct Chamberlain toward the most meaningful aspects of aging in place that could be addressed by Duchossois' companies. Throughout the development process, Chamberlain will be guiding us with their expertise in research and the design process.

### **2. Defining the Problem**

As people advance in age, they slowly lose the ability to perform everyday tasks they once took for granted and before they realize, those abilities are gone. The once able-bodied person has to look to others to assist their routine tasks. This assistance usually comes with a hefty price tag. *The cost associated with this assistance will be covered under Business and Societal costs (refer to page 6).*

According to a UN press release dated March 13 2007, the world's population of people over 60 will almost double from 245 million to 406 million<sup>1</sup>. This will be a huge burden on the existing health care and social security systems currently in place today. As of 2009, approximately 39 million people were over the age of 65 according to US Census Data<sup>2</sup>. The article, "Age-related Changes in Activities of Daily Living Ability" published by the Australian Occupational Therapy Journal in 2004 describes ways in which activities of daily living (ADL) performance ability develops gradually. Performance ability develops gradually during childhood and adolescence, and declines after the age of 65 years<sup>3</sup>. This loss of ability brings up major concerns for the elderly. When asked what they fear most, 26 percent of older people ranked loss of independence, and 13 percent ranked placement in a nursing home highest, while only 3 percent ranked death highest<sup>4</sup>.

In this IPRO, we intend to layout the path to a solution by making a comprehensive list of the most important problems seniors face that are keeping them from living independently in their homes. These problems must represent the concerns of the senior citizens as well as their caregivers and family members.

### **3. Science Involved**

The IPRO team will be methodically researching the topics and populations of importance pertaining to the concept of adults "aging in place." Thus, the team will use formal techniques from different areas including: anthropology/sociology, business, and psychology. The actual designs of each research technique to be applied (refer to the Gantt chart on page 11) are yet to be completed for this semester.

The science involved in IPRO 360, Spring 2011, includes the use of software, such as the Statistical Package for the Social Sciences (SPSS), to analyze the statistical relevance of data collected from surveys.

### **4. Ethical Considerations**

The IPRO 360 team needs to take into account the respect that each individual deserves and the independence that no one wants to lose.

The first obstacle that we as a team may face is the perspective of the individuals involved when it comes to health care and what is acceptable practice. It may be the viewpoint of the particular individual who wants to be independent that they are fine even though they sometimes are in need of assistance. Although they may realize that there is nothing wrong in asking for help, they might not want to be a burden to others.

We must also take into consideration the point of view of family members that want the very best for their loved ones. Another important viewpoint is that of the health care providers whose goal is to provide the best care for their patients. Looking at these perspectives we believe we can find the solution that addresses all parties involved.

In regards to the research that will be performed, the issue of trust becomes very important. IPRO 360 Aging in place aims to be very careful creating surveys and gathering information under the rules and regulations of the National Institute of Health Office of Human Research<sup>5</sup>. The privacy of individuals is our main concern and will be afforded the utmost care. We understand that every individual is different and being asked personal questions might make them feel uncomfortable. The IPRO 360 team will adhere to the policies of informed consent.

We believe in the principle of Beneficence stated in the Belmont Report<sup>5</sup>, and its ability to maximize the benefits and minimize the possible harmful effects on our participants. Informed consent, which will be mandatory for everyone and a debriefing session available to everyone but optional, will be provided so that individuals feel comfortable at all times.

In regards to data collected by our teams through anthropological studies, focus groups, surveys, and interviews, our team will make sure to present the data gathered without altering it in any way. Data will also be kept private.

## **5. Business and Societal Costs**

A survey of nursing home costs commissioned by GE Long Term Care Insurance shows that spending a year in a nursing home in the ten most expensive areas of the country now carries a price tag of roughly \$80,000 or more. Two other statistics bring the significance of GE's surveys' findings into sharp focus. Roughly 40 percent of those reaching the age of 70 are expected to need some type of long term care during the rest of their lives, yet only seven percent of Americans have done any planning at all for their long term care needs. According to the GE Long Term Care Insurance Nursing Home Survey, the national annual average cost of a year in a nursing home is \$54,900. The survey evaluated the cost of assistance in a nursing home with the activities of daily living for a person suffering from a debilitating condition such as Parkinson's disease. It did not include the costs for therapy, rehabilitation, or medications.

## **IV. Team Value Statement**

### **1. Principles of Professional and Ethical Conduct**

All group members of this IPRO acknowledge and agree to adhere to the following principles of professional and ethical conduct:

- Complete their assigned tasks in a timely manner and trust in their fellow team members to do likewise
- Seek help and/or clarification when needed to understand what is required of them
- Remain informed of all topics and important issues addressed by the group
- Treat each of the group members with courtesy and respect as dictated by professional standards

- Communicate clearly and effectively when sharing information with the group
- Emails will be responded to with at least a confirmation of having received it within 24 hours, and with a meaningful response within 48 hours
- Meeting decisions need to be written down and stored in a commonly accessible location on the web
- Be present, on time, attentive, and open-minded during group meetings so as to achieve maximal participation and comprehension
- Meetings will be attended on time for the full duration unless the whole team agrees on a deserving excuse
- Resolve any grievances among group members quickly and peacefully, thereby maintaining focus on their primary objective
- Provide/accept constructive criticism to/from other group members politely

## **2. Absence/Tardy Policy**

All team members are expected to fully participate in this IPRO. Each member is allowed one personal unexcused absence without any academic penalty. All other absences must be petitioned one week prior to the expected absence. The petition must be presented in front of the group for approval.

If the absence of that team member is approved:

- A task will be assigned (pertaining to the absentee's sub-team)
- A written and oral presentation will be assigned
- Absence Work should be done in addition to out of class work
- The team member will present their findings to the class

## **3. Conflict Resolution**

In order to relate to one another in a manner that is fair, equitable, and honest, team members must keep open lines of communication. They need to be aware of each others' comfort zones and treat each other with respect. A conflict resolution statement has been developed that will dictate the necessary steps required to identify and mediate problems within the group.

Conflicts may arise over issues such as distribution of work, classroom attendance, or simple differences in opinion. By adhering to the conflict resolution plan, and maintaining dedication to cooperation, this team will overcome challenges and become a high performing team during the spring 2011 semester.

The points below act as a guideline to resolve any conflict that may arise during the course of the semester:

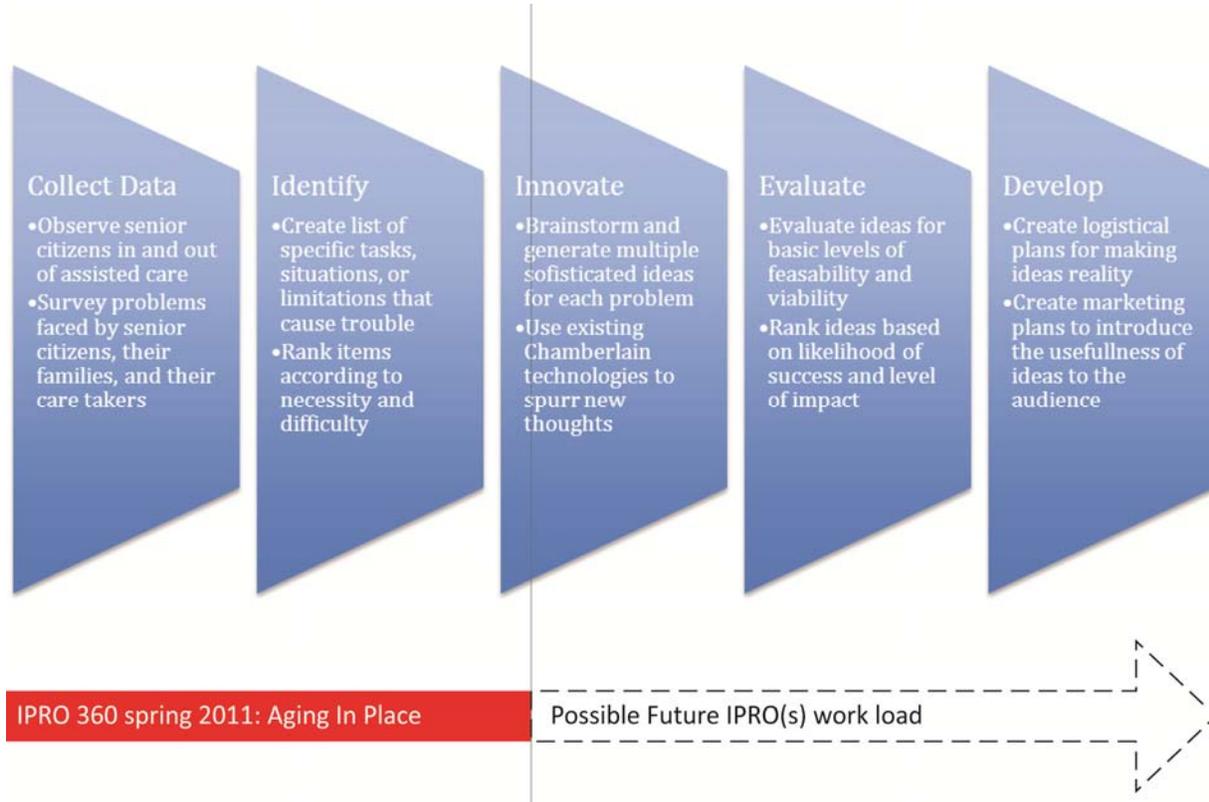
- Identify the conflict
- Approach persons involved to discuss problem
- If the conflict remains unresolved, the team leader and/or professors will mediate
- To ensure a democratic solution, group discussion will ensue to review and insure that the conflict has been resolved

The Conflict Resolution Model-Australian is the conflict resolution method that was chosen by our current group to implement, should any conflict arise. This model was proposed by a group of psychologists (Littlefield, Love, Peck, & Wertheim, 1993; Sanson & Bretherton, 2001; Wertheim, Love, Peck, & Littlefield, 1998) in Australia and has four main stages: developing expectations for win-win solutions, defining each party's interests, brainstorming creative options, and combining options into win-win solutions. The first stage focuses on eliminating the "sides and arguments" and only focuses on the concerns of both parties, so that they are heard. If the positions are individually addressed in a common setting, more arguments will be caused because each party will try explaining why it is correct, which leads us to the creative brainstorming stage. A solution can be developed based on fulfilling those concerns, which is both creative and pleasing to both parties. The last stage involved filtering through the brainstormed ideas, combining as many of them as possible, while ensuring that a maximum of concerns of each party are addressed.

## V. PROJECT METHODOLOGY

### 1. Work Breakdown Structure

Below is the proposed Work Breakdown Structure from a previous IPRO 397 course.



The timeline above indicates where our group is anticipating our work will carry us through by the end of the semester.

Through Data Collection and Problem Identification IPRO 360 spring 2011 will set out with a major focus of investigating the lifestyles of the elderly population. Through close anthropological studies, personal interviews, focus group discussions, surveys, and secondary research we intend to understand the successes and problems of elderly living, the social networks in which they operate and rely, and the restrictions and difficulties of growing old in a mainly self-reliant state. Through understanding of The Chamberlain Group and their operations we will filter the data we collect and propose feasible avenues in which we feel confident the Chamberlain Group could begin to conceive a solution for.

Anthropological studies and interviews are to be conducted in order to find out the lifestyle of the elderly at home by observation. These studies will include visits and interviews with elderly participants, their families, nurses, physicians, and assisted living home staff. Observation research should be unobtrusive and not interfere with the participants in order to provide as pure data as possible. Secondary Research will reveal precedents in which this problem has

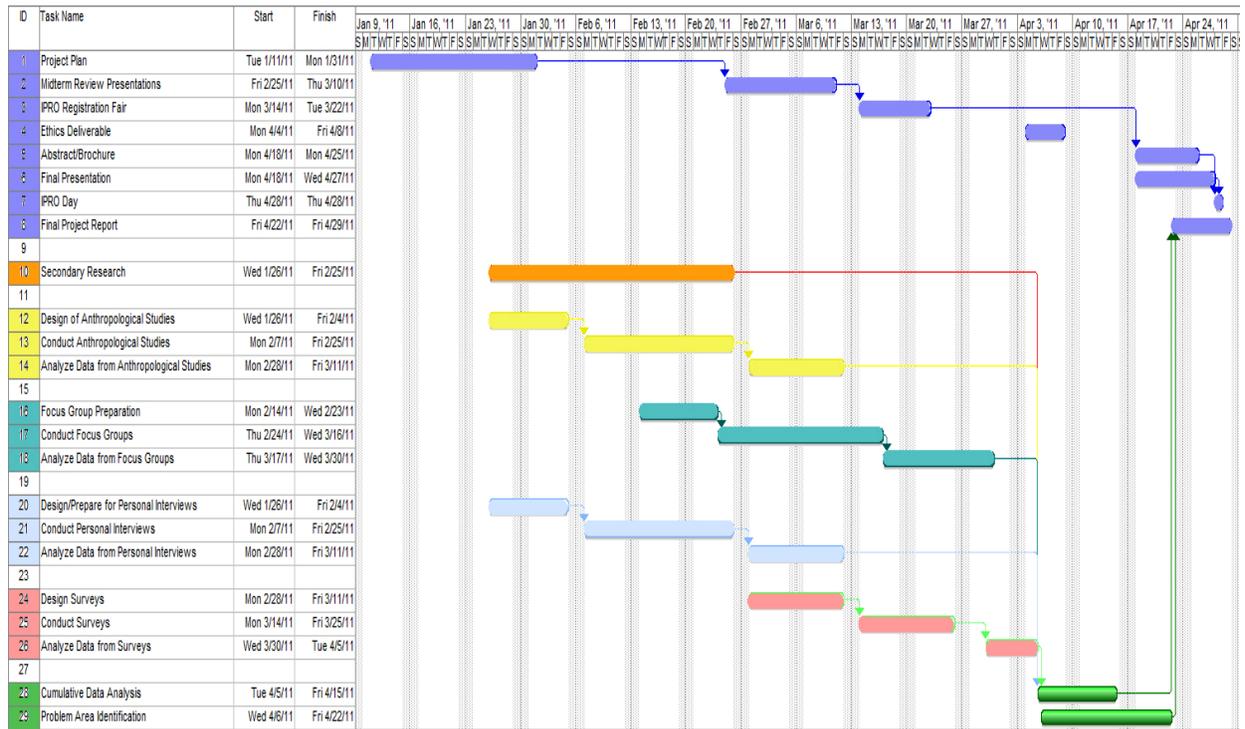
already been addressed. Focus Groups will allow a greater understanding of specific groups such as different generations of the aging population, the caregivers, and their family. Surveys will allow us to test the data our research has provided on primary groups in hopes to allow a deeper more thorough understanding and possibly preliminary insight as to solution concepts the Chamberlain Group might want to pursue. Through meetings with The Chamberlain Group our efforts will stay on target with their interests.

Our Work Breakdown Structure describes how we intend to proceed to investigate this major issue. The Gantt chart explains the work schedule we will keep track with.

### A. Major Tasks Breakdown Chart

Design Methodology:	Step 01:	Step 02:	Step 03:	Step 04:	Step 05:
Work Breakdown Structure	Preliminary Planning	Activity Performance	Posterior Analysis	Organize Data	Compose Report
I. Primary Research: Anthropological Study	a. design observation protocol. b. contact participants and set up appointments.	a. introduce process to the participants. b. perform study according to the observation protocol.	a. clean up and organize data. b. compose a written summary and release to group	Gather all information and categorize based on: 01. Significance to the problem 02. Focus Groups 03. Relevance to The Chamberlain Groups operations.	Compose a full report that consists of the research methodology, data collection, information analysis, and summarized synthesis of the research investigated. Conclusive recommendations of areas in which The Chamberlain Group could apply their company interests should conclude our report.
II. Primary Research: Personal Interviews	a. design interview method protocol. b. compose interview questionnaire/ dialogue guide. c. contact participants and set up appointments.	a. introduce process to the participants. b. conduct interviews according to the interview method protocol.	a. clean up and organize data. b. compose a written summary and release to group.		
III. Secondary Research: Peer Reviewed Literature	a. compose research topic list + categories. b. gather relevant peer reviewed resources.	a. review and record information.	a. provide bibliography of resources. b. compose a written summary of information gathered and release to group.		
IV. Primary Research: Focus Group Discussions	a. signify focus group types b. create focus group meeting protocol. c. assign teams. d. contact participants and set-up appointments.	a. introduce process to the participants. b. conduct the focus group discussions based on the protocol. c. record the meeting.	a. clean up and organize data. b. compose a written summary and release to group.		
V. Primary Research: Survey	a. design survey protocol. b. find participants. c. compose focus group specific surveys d. create surveys	a. introduce process to the participants. b. conduct the survey with return instructions if applicable. c. reward participants.	a. gather and organize data. b. provide analytical statistics of the completed surveys.		

## B. Gantt Chart



### C. Team Group Structure

Design Methodology:	Step 02:	
Team Structure	Team Position	Position Responsibilities
Research Teams	Team Leader	<ul style="list-style-type: none"> <li>acts as contact with The Chamberlain Group and IIT Faculty when needed.</li> <li>administers tasks.</li> <li>connects all aspects of research.</li> <li>holds team members to their commitments.</li> <li>keeps team on track and on schedule.</li> </ul>
	Anthropological & Interview Team	Team responsibilities include writing and implementing the protocols, performing specific team tasks, recording data, and composing written summaries to be shared with the other members of this group upon completion.
	Secondary Research Team	
	Focus Group Team	
	Survey Team	
The Chamberlain Group sciences + technologies Research Team		
IPRO Deliverable Teams	Project Plan Conductors	collect and cohesively fit a final project plan.
	Mid-Term Review Presentors	present during mid-term reviews.
	Mid-Term Review Composers	compose mid-term presentation.
	Registration Fair Participants	represent IPRO 360: Aging In Place at the Registration Fair.
	Ethics Deliverables Team	compose and submit our team ethics report.
	Abstract/ Brochure Team	create and finalize the abstract/ brochure.
	Final Presentation Team	Professionally present our project at FINALS!
	IPRO Day Teams	Sign up for specific tasks to represent our IPRO 360: Aging In Place during the IPRO Day event.
Final Report Teams	contribute to the final report in some fashion or another. The tasks will be recognized at a later date.	

## **2. Expected Results**

### **A. Expected Activities and Results of Data Collection**

The first stage of IPRO 360 will be to determine the precise data collection techniques and methods the team will use to gather information. This process includes deciding what methods are best for the project, constructing the process for gathering data (i.e. designing surveys, interviews), identifying our target audiences. It also includes discussing how to implement them with group members, our sponsor, and representatives of the target audiences. Data collection techniques for this IPRO include, but are not limited to: anthropological studies, surveys, statistical testing, and research about the aging population within the United States.

After we complete the process of determining data collection techniques, we will seek to contact representatives of the elderly community, family members of the elderly, people who have extensive experience with the elderly, and individuals from the baby boomer generation. This will require visiting and interviewing the target markets within retirement communities (entire areas of townships and cities which are marketed and sold to people who are aged 55+ only), assisted living centers, individual households (alone or with family), and hospitals. Once we have acquired a full base of individuals, we will conduct surveys and studies. As this is going on, other individuals will be engaged in collecting secondary research.

Upon completing the necessary data collection and research, we will compile the data into a report, including overall conclusions gathered from the data, and identify problems from different areas of the aging population's daily lifestyles. These areas include external problem areas, from activities such as grocery shopping to social outings with friends, as well as internal problem areas from activities such as watching a movie on television to cleaning the dishes. The data we collect and refine, along with an analysis will then be shown to our sponsor in an organized presentation.

### **B. Potential Outputs and Products**

IPRO 360 is largely dependent on gathering data and analyzing it so that the group can identify potential relevant problems in the current and future senior populations. As the team completes the designs of the data collecting techniques in the Gantt chart, the group will also be preparing to complete surveys, focus groups, and personal interviews with several target audiences. These will be circulated to professors and personnel who will review the documents and identify necessary revisions.

Over the course of the project, the IPRO 360 team will be continuously gathering new information and data which we will refine and add to a library containing all data acquired. This library will be the heart of the project and will continue to be assembled and advanced based on the data collected.

### **C. Challenges, Risks, and Assumptions in Data Collecting**

As the team begins to identify (and, in later semesters, address) problem areas within the daily lifestyles of older populations to help them “age in place”, bias may become present. To avoid bias the data collection methods will be reviewed by group members and experts outside the group to eliminate bias where it is identified. If bias is identified in the data, the team has a strong commitment to perform necessary corrections.

A difficulty will be getting aging individuals to openly confess problems they are facing in their day-to-day lives, as they often do not feel comfortable discussing such matters. This phenomenon is a type of selection bias known as non-respondent bias. Selection biases will be inherent to the type of research proposed. These types of biases occur when information that is embarrassing for the target group to voice appears to be less prevalent than is actually the case. In such a situation, information that is easily voiced by the participants appears to be more relevant and can take undue precedence over other, potentially more pertinent, information.<sup>6</sup> We hope to overcome this problem through careful study design that enlists the resources available to us here at IIT. With the help and guidance of the universities Psychology and Ethics departments, the existence of bias in the teams reporting will be minimized.

There is a possibility that we will be unable to gather enough data to draw conclusions from in this project. This would result from target audiences refusing to agree to accept our studies and surveys, the inability to properly develop a survey/study that can accurately identify potential problems, or some currently unforeseen problem that interferes with our data collecting process. While this does not exclude us from gathering data from other sources it will be a damper to the project. Additionally, there is a major risk that the data we collect only reveals problems that are already solvable with existing technologies and services. A solution to this would be to reexamine the data and see if the existing solutions can be applied to other problem areas, i.e. expand the scope of the solution to cover a larger audience of users. A similar solution would be to reexamine the data to see if we could improve on an existing service or product. The biggest risk is that the data we collect and refine will yield no practical problems that can be addressed.

### **3. Budget and Expenses**

- Gas (travel to/from assisted living facilities for various research techniques) \$120.00  
200 miles at \$0.60 per mile
- Printing (for surveys and informational packets) \$ 40.00  
B&W printing: 800 pages at \$0.05 per page
- Compensation for focus group attendees \$450.00  
\$15.00 gift card per attendee x 30 attendees
- Disposable cameras (market research technique: anthropological research) \$100.00  
10 cameras at \$10.00 per camera (camera + photo development)
- Empathy workshops (to better understand the populations being researched) \$120.00

- Cost is to include purchase of materials which will help the IPRO team recreate situations which studied populations may encounter

TOTAL ESTIMATE: \$ 830.00

#### **4. Assignment of Roles**

##### **A. Team Leader**

The team leader is responsible for making sure the group is successfully following the overarching goal of the project and keeping on track with the schedule. He or she is responsible not only for making sure everyone completes their task but also his or her own task as well. This role requires responsibility for dealing with external affairs, such as talking to professors, sponsor companies relating to the project, and members research audiences.

##### **B. Research Organizer**

The research organizer is responsible for leading discussion and organization of research methods, research protocol documentation, reference expertise, and reporting and gathering the raw data necessary for relevant decisions to be made. Once raw data has been gathered it will be presented to the group and stored in a location accessible by group members and the group sponsor.

##### **C. Primary Research Collector**

The primary research collector will be responsible for implementing and gathering all research requiring interaction with identified target audiences. This includes, but is not limited to, administering surveys, conducting anthropological studies and conducting interviews with individuals or groups. Once the data is collected, the primary research collector will bring it to the research organizer, who will combine it with previously gathered data.

##### **D. Secondary Research Collector**

The secondary research collector will be responsible for gathering data and research from sources that do not require interaction with target audience members. This individual must also identify what data is applicable to the project, and if its sources are legit and verified. Sources include, but are not limited to, peer-reviewed articles, news reports, surveys, public records, research studies and books. Once relevant data has been identified and extracted from its source, it will be submitted to the research organizer.

##### **E. Administrator**

All details regarding budget, equipment loans, and binder organization will be directed to the administrator. Ultimately, the administrator will have the master copy of all

documents as well as a back up (paper and electronic) for all work completed through the semester.

**F. Time Keeper**

The time keeper will make sure team deadlines are met, meetings run efficiently, and pertinent information is circulated to the appropriate people. In order to achieve this, an email summarizing deadlines will follow team meetings, an agenda will be made for each meeting, ready 24 hours in advance, and all team members will be notified of upcoming deadlines via email. Additionally, the time keeper reports to the professor on the status of the project and group dynamics.

## VI. APPENDIX

### 1. Bibliography

Project Plan Sources Thus Far:

<http://www.allbusiness.com/marketing/market-research/1287-1.html>

<http://www.duch.com/index.html>

[http://ipro.iit.edu/project-listings/current-projects#Spring2011\\_360](http://ipro.iit.edu/project-listings/current-projects#Spring2011_360)

Littlefield, L., Love, A., Peck, C., & Wertheim, E.H. "A model for resolving conflict: Some theoretical, empirical and practical implications." Australian Psychologist, 28 1993: 80-85.

<sup>1</sup> Press Release Pop/952. 13 March 2007

<<http://www.un.org/News/Press/docs/2007/pop952.doc.htm>>.

<sup>2</sup> U.S. Census Bureau. 2010. Nov 2010

<<http://quickfacts.census.gov/qfd/states/00000.html>>.

<sup>3</sup> "Age-related changes in activities of daily living ability." Australian Occupational Therapy Journal, 2004 Vol 51: 192-198.

<sup>4</sup> Thomas and Blanchard. "Attitudes of Seniors and Baby Boomers on Aging in Place.", Clarity, Aug 2007: 13.

<sup>5</sup> Office of Human Research Subjects Research.

<<http://ohsr.od.nih.gov/guidelines/belmont.html#ethical>>.

<sup>6</sup> "Major Types of Research Study Bias." n.d., <<http://www.umdj.edu/idsweb/shared/biases.htm>>

## 2. Individual Strengths, Needs and Expectations



### **Mario Alvarez**

#### Strengths:

- Task oriented person and will work until assignment is done
- Works well in a team and with different personalities

#### Needs & Expectations

- Ability to reach quickly and effectively
- Perform studies and compile data so that others can use
- Ultimately make a difference in the lives of seniors



### **Emily Bardsley**

#### Strengths:

- Creative
- Hard working
- Reliable
- Background in Architecture and knowledge of how people interact with their surroundings
- Previous experience in Behavior studies and surveying

#### Needs & Expectations

- To have participation fit around studio schedule
- To expand the range and development of design ability



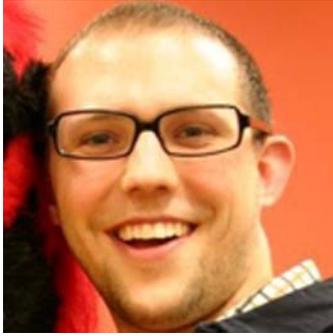
### **John Ingles**

#### Strengths:

- Perseverance when solving complicated problems
- Excellent writer
- Attention to detail

#### Needs & Expectations:

- Needs to know how everyone is understanding him and how everyone is understanding each other



### **Brian Kibbe**

#### Strengths:

- Able to lead meaningful discussions
- Enjoys building consensus in groups and forming common goals
- Quality writing and presentation skills

#### Needs & Expectations:

- Clearly defined roles for, and equal effort from team members
- Wants to provide meaningful and helpful information to Chamberlain Group



### **Joseph Klimek**

#### Strengths:

- Dedication to this cause and perseverant by nature.
- Abstract Thought and Presentation
- Creativity + Ability to Draw (Digitally + Sketch)

#### Needs & Expectations:

- I expect to develop a deeper understanding of the psychological, physical, and reliance issues the elderly population has as well as within the society they live



### **Jamie Mitchell**

#### Strengths:

- Knowledge from ongoing study in the areas of biomedical engineering and electrical engineering

#### Needs & Expectations:

- To develop experience and confidence in his ability to function as a team player



### **Rebecca Morgan**

#### Strengths:

- Completing managerial tasks such as making schedules and moderating discussions to keep the group focused
- Has knowledge about general business practices (specifically marketing) as well as general psychology

#### Needs & Expectations:

- From this project, she needs to feel like the IPRO can make a difference with its accomplishments



### **Angelina Papazova**

#### Strengths

- Creative
- Detail-oriented
- Responsible
- Independent
- Brings knowledge in the field of Psychology, as well as background diversity to the group
- Has a lot of teamwork experience

#### Needs & Expectations

- Believes that by interaction she can gain a lot from other people's experiences and their fields of study
- Believes that this project can accomplish its goals and make a change in individuals' lives



### **Keyur Patel**

#### Strengths

- Hard worker
- Punctual
- Reliable
- Easy going
- Having knowledge in physiology, applied mathematics, anatomy, and cell and tissue engineering
- Java programming and Matlab

#### Needs & Expectations

- To develop leadership skill and effective communication skill



### **Salma Salih**

#### Strengths

- Reliable
- Dedicated and will do everything to get the job done
- Understanding
- Psychology background
- People person
- Survey writing

#### Needs & Expectations

- To learn as much as I can about different disciplines



### **Michael Sanders**

#### Strengths

- Committed and dedicated to completing tasks on time
- Considerate of others.
- Meticulous and detailed when it comes to work (i.e. lays out every part in clear, methodical detail, that anyone can follow)
- Some background in computer programming (C language)
- Extensive background in mathematics and physics

#### Needs & Expectations

- Learning how to work better with others in teams
- Learning the process for an anthropological study/survey



### **Shefali Umrana**

#### Strengths

- Innate interest in research and development
- Ability to communicate effectively in groups, professionally and otherwise
- Meticulous, organized, responsible and insightful

#### Needs & Expectations

- Make every effort so group can meet the expectations of the sponsor
- Help make some difference in the lives of the elderly using this IPRO