

Project Plan for IPRO 497-353: Tummi Pals

I. Team Information

A. Team Member Roster

1. Christopher Salgado – csalgado@iit.edu
2. Christopher Chachakis - cchachak@iit.edu
3. Philip Brierley - pbrierle@iit.edu
4. Branden Toro - btoro@iit.edu
5. Christopher Anglin - canglin@iit.edu
6. Gustavo Untiveros - guntiver@iit.edu
7. Fernando Gomez – fgomez@iit.edu
8. Hana Tai - htai1@iit.edu

B. Team Member Strengths, Needs and Expectations

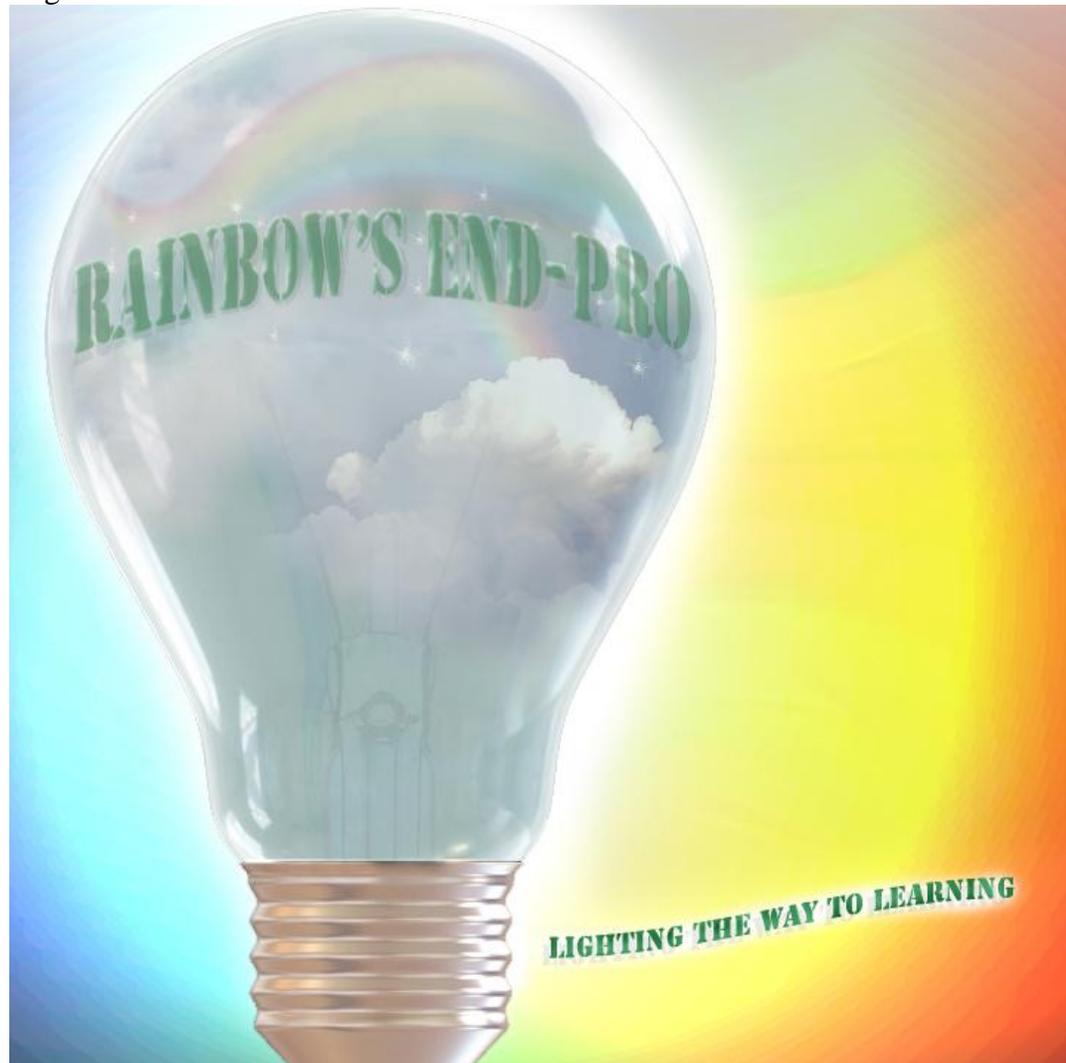
1. Individual strengths to contribute
 - a. Christopher Salgado: Political Science major; business, marketing, project management background with strong analytical skills
 - b. Christopher Chachakis: Computer Engineering major; very technical savvy; experience in public speaking
 - c. Philip Brierley: Business major; strong understanding of business tactics; detail-oriented
 - d. Branden Toro: Mechanical Engineering major; understanding of advanced technological processes; programmer
 - e. Christopher Anglin: Business major; excellent knowledge of the business world; great research skills
 - f. Gustavo Untiveros: Biochemistry major; solid comprehension of science and both biological and non-biological materials
 - g. Fernando Gomez: Chemical Engineering major; knowledge of research in the organic chemistry field
 - h. Hana Tai: Psychology major; extensive background in the technical field; understanding of various facets of business
2. New knowledge/skills to develop
 - a. Christopher Salgado: Writing a business plan
 - b. Christopher Chachakis: Create a prototype
 - c. Philip Brierley: Understand the marketing industry
 - d. Branden Toro: Develop product analysis skills
 - e. Christopher Anglin: Understand the competition for a new product
 - f. Gustavo Untiveros: Research prices for existing products that are similar to our product
 - g. Fernando Gomez: Locate the applicable business laws for our product and business

- h. Hana Tai: Develop focus groups to establish the needs of our product
- 3. Overall expectations about the project
 - a. Christopher Salgado: Gain a better understanding of a business plan
 - b. Christopher Chachakis: Become educated with the details behind prototype creation
 - c. Philip Brierley: Develop a better understanding of the marketing industry and new product development
 - d. Branden Toro: Build a foundation of how product development and product analysis work in business
 - e. Christopher Anglin: Familiarize myself with the marketing industry and learn how to write a business plan
 - f. Gustavo Untiveros: Discover how to convert an idea into a product
 - g. Fernando Gomez: Learn how a business is created
 - h. Hana Tai: Determine what makes an effective child learning toy

C. Team Identity

- 1. Name: Rainbow's EndPRO

2. Logo:



3. Motto: "Lighting the way to learning"

II. Team Purpose and Objectives

A. Team Purpose

1. Team vision: To aid our sponsor, Angela E. Davis of All 4 Kidz Enterprises, in her mission "to provide young children with books and toys that will enhance their learning and broaden their thinking"
2. Team mission: To develop a business plan and an action plan for prototype development of a Tummi Pals doll

B. Team Objectives

1. Have a working prototype of the whole package
 - a. Doll
 - b. Packaging
 - c. Night light
 - d. Storybook
 - e. Accessories

- (i) Rings
 - ABC's
 - 123's
 - Colors
 - Shapes
 - (ii) Hairbrush
 - (iii) Carrying Case (Ball)
2. Define the target customer (demographics)/market
 - a. Age
 - b. Sex
 - c. Acquired education
 - d. Individual or entity? (i.e., school, daycare, etc.)
 3. Define possible competitors
 4. Identify the appropriate industry for this product
 5. Understand the manufacturing process
 - a. Costs of parts
 - b. Costs of labor
 6. Understand IP & regulatory requirements
 7. Conduct consumer research (to address the possible demand for this product)
 - a. Focus groups
 - b. Surveys
 8. Identify the value proposition
 9. Describe the business model
 10. Develop a marketing/sales/promotions strategy
 11. Draft a business plan
 12. Measure teacher & child receptiveness to the Tummi Pals storybook

III. Background

All 4 Kidz Enterprises is a minority and women-owned business based in Homewood, Illinois. All 4 Kidz Enterprises specializes in providing multicultural learning aids and children's books with audio CDs for children ages 2 and up. This is done primarily through its "Urban Kidz" series of books.

The author, Angela E. Davis, is a retired elementary teacher with a Master's Degree in Curriculum and Instruction/Early Childhood Education. Her passion for educating young people led her to develop a series of books that would be both educational and enjoyable. She is also a frequent visitor to schools, conducting "Meet the Author Day", where she speaks to both students and teachers about realizing their dreams.

Angela's mission is to provide young children with books and toys that will enhance their learning and broaden their thinking. To that end, she has developed a concept for a line of learning doll called Tummi Pals. Angela has researched the market and has not found a doll with the attributes of Tummi

Pal. Her hope is to fill the void left by the initial excitement of the Cabbage Patch dolls.

The team's goals include developing a business plan and an action plan for prototype development. Activities will include:

- Perform market research and identify demand potential
- Complete a thorough competitive analysis to include direct and indirect competition as well as potential substitutes
- Research other companies utilizing a similar business model to capture lessons learned and best practices
- Develop a marketing program incorporating possible benefits for cognitive development
- Evaluate the proposed design of the doll and its packaging
- Investigate options for prototype development
- Produce a detailed cost estimate for prototype development

IV. Team Values Statement

A. Desired Behaviors – 5 Key Attributes

1. Professionalism

- a. Shows respect towards team leader as well as other individuals
- b. Dependable/Reliable to get quality work accomplished
- c. Honest in work progress and challenges oneself in the amount of work they take on
- d. Asks for help when struggling but work is ones own

2. Innovation

- a. Comes up with many unique solutions
- b. Consistently advances group discussion in a constructive manner
- c. Open to other members' solutions (with substance)

3. Punctuality

- a. Shows up at class on time
- b. Attends class or sub-team meetings >90% of the time
- c. Any absences or tardiness are reported prior to their occurrences
- d. Work is always delivered in a timely manner
- e. Promptly responds to IPRO communications
- f. Always knows his schedule to avoid time conflicts prior to setting up sub-team meetings
- g. Provides documentation of what they are working on for the group to discuss in their absence

4. Communication

- a. Effectively communicates with all members of the team
- b. Available to members via all forms of communication: phone (voicemail), email, IM, etc.
- c. Responds to all inquiries with clear messages within 24 hours
- d. Dispenses factual and helpful feedback to team members

- e. Listens attentively without interrupting
 - f. Motivates the team with announcements ‘cheerleading’ their preparation efforts for IPRO Day
 - g. Welcomes constructive criticism from team members on his/her own efforts
5. Commitment
- a. Student takes ownership of his IPRO
 - b. Takes initiative by following through with ideas or suggestions made during the meetings
 - c. While doing his work, if he finds something that could improve the project, he takes the extra effort to do so, rather than just do what he was assigned
 - d. Helps others who may be struggling in order to help move along the project
 - e. Stays interested to do work throughout the entire project
- B. Repercussion Strategy
- 1. Team’s grading rubric for each team values attribute:
 - a. Role Model (A) - Fulfills all aspects of each attribute
 - b. Satisfactory (B/C) - Fulfills some aspects
 - c. Unsatisfactory (D) - Fulfills minimal aspects
 - 2. Confronting unsatisfactory behavior
 - a. Ensure the group maintains a positive atmosphere to not discourage anyone from participating
 - b. Ensure all team members are aware of the 5 key attributes of the team values and has agreed to adhere to them
 - c. Team leader or subgroup leader will confront any team member performing poorly to search for a solution
 - d. Team leader or subgroup leader will maintain contact with any “fallen” team member to ensure improvement
 - e. If team member does not improve, the professor will step in with appropriate responses

V. Methodology/Brainstorm/Work Breakdown Structure

- A. Design, construct, and market Tummi Pals Learning Doll and their accessories in order to help children ages 2-5 learn their alphabet, letters, numbers, colors, shapes and words.
- B. In order to accomplish the problem set forth in part A. the team will divide into sub-teams. There will be a tech team, a creation team, and a marketing team. The tech team will be in charge of battery operations, power, memory, and size constraints for the night light, the scanner device and the light-up hands. The creation team will be in charge of size, shape, and materials for the doll as well as the accessories. The marketing team will be in charge of the cataloging, the pricing, and the packaging.

Research and data will be gathered by observing and interviewing preschool or kindergarten classes. This will allow for a proper analysis of doll design as well as accessory design to suit the desires of the children.

Also, surveying and interviewing of parents will be performed, which will allow for feedback as to the important features of a “learning doll” for their children.

In the allotted time for this project, it is reasonable that the group will complete the product design for the developer. With commitment and hard work, the group will be able to break into the necessary teams to accomplish the tasks and goals that have been adopted.

- C. Research and design will be necessary before any prototyping can begin. Researching will allow for similar product recognition to be found and studied in order to create an idea for the scanner device. Pre-design strategies will be necessary in creating the doll and accessories. Studying and interviewing may allow the appropriate group to understand what the market is and who would buy this product.
- D. All results that are found through researching, designing, and brainstorming will be uploaded to iGroups. The results may be team findings, subgroup findings or individual work.
- E. As the team develops ideas and brainstorms possible solutions for a suitable design, the ideas reached will be shared and agreed upon by the team as a whole. The team may also have to pass ideas through the sponsor as well as through the IPRO instructor.
- F. The IPRO deliverables will be a team effort. Subgroups will be created in order to divide the work load and its components. The subgroups will work on their portions of the tasks before all subgroups incorporate their efforts in whole. The final report will then be discussed and agreed upon by the entire team in regards to content as well as transitioning one half of the report to the other subgroups half.

VI. Expected Results

- A. The project’s main aim is to complete a business plan to introduce the Tummi Pals doll and related accessories to the market. This plan would include a finalized design of the doll, its carrying case as well as that of the scan cards. This business plan would also include an assessment of the product’s target populations as well as an assessment of the best starting market. These markets being Pre-K daycares or for private use.
- B. The project expects to finalize the design of the Tummi Pals doll as well as that of the carrying case/nightlight and scan cards in order to advance to prototype production. The design of the doll would entail the determination of the doll’s size, names, electric components and building materials. The design of the carrying case would entail its size, the availability of the lamp component as well as its building materials. Finally, the design of the cards would involve the determination of their size, color and educational content.
- C. The project will also include a sales and distribution plan for the doll and its related accessories. This plan would include the assessment of estimated production costs as well as the prizes of the products, either

individually and in bundles. The project will develop a prototype catalog of single and product bundles as well.

- D. The project also commits to provide a product design which complies with federal safety standards for toys. We will assess the safety of our building materials, electric components, paints and size of the products in order to provide a safe product to the market.

VII. Project Budget

Item	Unit Price	Quantity	Total Price	Purpose
Fabric	\$3.49/yard	4	\$13.96	Making the doll
Stuffing	\$7.50/pound	3	\$22.50	Making the doll
Mohair (fake hair)	\$4.00/ounce	3	\$12.00	Making the doll
Magnetic / Infrared Sensor Equipment	TBD	3	TBD	Making the scanning technology
Small Speakers	TBD	3	\$25	Audio output for the scanning technology
Modeling Clay	\$3.59/pound	5	\$17.95	Model creations
Food	---	---	\$300	Focus Groups
LED lights	\$6.00/6	5	\$30.00	Lights for the hands when sensor is activated
Mini computer with memory	TBD	1-2	TBD	Memory management unit to convert the scans to audio outputs
Decorations for IPRO day	---	---	\$50	To cover the costs of any additional props or eye-catching decorations to be on display on IPRO day
Other Toys	---	---	\$150	To cover the costs of acquiring other toys to take apart to determine functionality
Team building Activities	---	---	\$150	Various team building tasks

- A. Magnetic/Infrared Sensor Equipment can be modified from existing technology, but might not be found in its raw form. (Ideal technology would originate from security and sports technology sources.)
- B. Small Speakers are required to be asked for in bulk (approx. 10,000 units) before a price estimate is given.
- C. The mini-computer with memory will likely be the most important and expensive item in this project.

VIII. Schedule of Tasks and Milestone Events

	Start Date	Due Date	Hours	People	Additional Information & Skills Required
Project Plan	23-Jan	2/14/2009	20-30	All Members	Compile structured plan of project
Define the problem	23-Jan	1/28/2009	20	All Members	Familiarity with concept and plan
Identify Solutions	1-Feb	Ongoing	Ongoing	All Members	Analytical, Creative solutions to problem
Gather research	1-Feb	3/15/2009	40-50	All Members	Focus Groups, Surveying etc.
Midterm Reviews	N/A	March 2-12	N/A	All Members	N/A
Midterm Reviews Pres. Slides	N/A	Day of review	30	All Members	Gathering info, Compiling, & Presenting
Midterm Peer Review	N/A	TBA	N/A	All Members	N/A
Presentation for Sponsor	1-Apr	20-Apr	40	All Members	Prepare presentation for sponsor
Abstract brochure/Poster	1-Mar	27-Apr	40	Creative Team	Familiar with relevant design software
Business Plan	1-Mar	27-Apr	40	Business Team	Business Background
Design & Modify Prototype	1-Mar	20-Apr	50-60	Creative/Tech	Creative and technological skills required
Testing process for Prototype	1-Apr	20-Apr	50	Creative/Tech	Creative and technological skills required
Working Prototype Finalized	N/A	27-Apr	40	Tech Team	Tech, Engr, Robotics. Also design & C input required
Final Presentation Slides	1-Apr	29-Apr	30	All Members	Gathering info, Compiling, & Presenting
IPRO Day	N/A	1-May	N/A	All Members	Presenting and Project knowledge necessary

Surveys/Project closure session	N/A	May 4-8	N/A	N/A	N/A
Slack Time	21-Jan	N/A	10	All Members	N/A

IX. Individual Team Member Assignments

A. Team Leader: Christopher Salgado

B. Sub-teams

1. Tech Team
 - a. Christopher Chachakis
 - b. Branden Toro
2. Doll Creation Team
 - a. Hana Tai
 - b. Gustavo Untiveros
 - c. Fernando Gomez
3. Marketing Team
 - a. Christopher Anglin
 - b. Christopher Salgado
 - c. Philip Brierley

C. Sub-team Leaders

1. Christopher Chachakis
2. Hana Tai
3. Christopher Salgado

D. Sub-team Responsibilities

1. Tech Team
 - a. Design and create a scan belt system to be used by the doll
 - b. Research constraints for battery power
 - c. Research memory usage required for doll
 - d. Design and create nightlight that is used with the doll
2. Doll Creation Team
 - a. Research size, shape, and materials required to build doll
 - b. Create a prototype
 - c. Create accessories to be used by Tummi Pals doll
3. Marketing Team
 - a. Research product market and who competitors are
 - b. Research optimal price to sell doll
 - c. Create a packaging sample
 - d. Create a marketing scheme for the Tummi Pals Doll
 - e. Write a business plan
 - f. Create and use a focus group

E. Individual Sub-team Member Responsibilities

1. Tech Team
 - a. Christopher Chachakis – Research, design, and create scan belt system and research correct battery usage for the doll.

- b. Branden Toro - Research and design lighting system to be used in nightlight and research memory usage for doll as well as the dolls capabilities.
- 2. Doll Creation Team
 - a. Hana Tai – Research and design material used for stuffing and fabric used for the outside of the doll. Research and design appearance of the doll including all aspects of its face, hands, feet, and clothing.
 - b. Gustavo Untiveros – Research and design the size and dimensions of the doll. Research and design accessories for the doll, including hair brush, scan card rings and carrying case.
 - c. Fernando Gomez – Research and design the shape of the doll. Research and design the appearance and integration of all technology including the tummy scanner, voice recording, and light up abilities.
- 3. Marketing Team
 - a. Christopher Anglin – Research and define the target customer, research product market and who the competitors are, and managing the cataloging, pricing, and packing of the doll, and write business plan.
 - b. Christopher Salgado – organizing and implementing a marketing, promotions, and sales strategy and create a packaging sample for the doll, and write business plan.
 - c. Philip Brierley - Research and define the target market, create a marketing scheme and research the optimal price in which to sell the doll, and write business plan.

X. Designation of Roles

A. Meeting Roles

- 1. Minute Taker: Christopher Chachakis
- 2. Agenda Maker: Fernando Gomez
- 3. Time Keeper: Hana Tai

B. Status Roles

- 1. Weekly Timesheet Collector/ Summarizer: Christopher Salgado
- 2. Master Schedule Maker: Hana Tai
- 3. iGroups Manager: Christopher Chachakis