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Future-proof designers

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By Joshua M Lowe

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FUTURE-PROOF DESIGNERS

For the degree of Master of Fine Arts



Is approved by the final examining committee:

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04/23/2015

Head of the Department Graduate Program

Date

FUTURE-PROOF DESIGNERS

A Thesis

Submitted to the Faculty

of

Purdue University

by

Joshua M. Lowe

In Partial Fulfillment of the
Requirements for the Degree

of

Master of Fine Arts

May 2015

Purdue University

West Lafayette, Indiana

To my wife Sarah, for her sacrificial love.

And to my children, Isaac and Everly, who are my inspiration.

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ABSTRACT

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The need for professional graphic designers may be fading. Their value may not hold up over time. Soon longstanding skills such as photo manipulation, color combination, and logo generation will instead be accomplished with the click of a button by anyone with internet access. Because of this, educators, students, and professionals must ask what should be done to maintain or increase their value regardless of what the future holds? Furthermore, what skills and characteristics can be identified as being most valuable, timeless, and effective for the success of a designer, not just upon entering the field, but throughout their entire career?

The following study seeks answers to these questions by examining input and responses from 43 experienced professional designers and instructors from across the United States. The results of this study identify 6 key skills participants believe to be central for long, successful careers in the design field. These are:

- Creativity
- Collaboration
- Adaptability
- Communication Skills
- Productivity
- Curiosity

This study seeks to identify why each skill is important; what possibilities exist for integrating skills training into current design curricula, and what would a new curriculum built around specific skills look like? Ultimately, this study seeks to share possible solutions that add to the value of designers so that they will continue to be sought after and future-proof.

CHAPTER 1. INTRODUCTION

1.1 Taking the Long-view

“What architect so noble...as he who, with far-reaching conception of beauty, in designing power, sketches the outlines, writes the colors, becomes the builder and directs the shadows of a picture so great that Nature shall be employed upon it for generations, before the work he arranged for her shall realize his intentions (Frederick).”

The Father of Landscape Architecture, Frederick Law Olmsted (1822-1903), was the artist and driving force behind creating such grand and enduring parcels of America as New York City’s Central Park, George Vanderbilt’s Biltmore Estate, and the grounds of the U.S. Capitol. He was a man accustomed to planting seeds. A man who “painted” with roses, willows, and water lilies. A man devoted to the “becomingness” of a place, and the refreshing of the souls of men (Larson 50, 116-118, 220).

Unlike a sculpture cast in bronze, his sculptures would take years, decades, even centuries to fully form. He was compelled to take the *long-view* in his artistry. To plant and arrange solely for the ribbon cutting ceremonies would have been short-sighted, as the land he formed would grow and mature for years to come. “I have all my life been considering the distant effects and always sacrificing immediate success and applause to that of the future. In laying out Central Park we determined to think of no results to be realized in less than forty years” (Martin 368). Creating long-term relevancy for designers must begin with design instructors. They must plant good seeds into the life of students for the short time they have them, knowing there will be decades of growth to come. Of course, instructors must equip students for their graduation day, but they should not stop there. Much like Olmsted, design instructors should take the long-view. They should equip young designers with the skills they need to survive in the field—not just for 4 years—but for 40 years in the changing workforce. Let them help form designers who are *Future-Proof*.

1.2 What is a Future-Proof Designer?

To be future-proof is to be equipped with the knowledge and skills needed to navigate a long and challenging career in an ever-changing workforce. Technologies change, new fields are created, and new economies form. The hardware and software design students learn may soon become obsolete. Amidst all of this change, however, there are skills that can help today's designers endure tomorrow's changing landscape. Design instructors can benefit students by integrating the training of these enduring skills into their classrooms and curricula.

1.3 Why Create Future-proof Designers?

"The only thing that is constant is change."

-credited to Heraclitus, 500 BC

History has revealed that technologies change and evolve over time, and often rapidly. Additionally, the pace of change may grow even more frantic in the coming years. The design profession has been, and will continue to be, deeply affected by these changes. Four years of education often turns into 40 years of practice. Inevitably, these 40 years will be marked by new information, new tools, and new markets. Designers who proactively incorporate and strengthen healthy habits into their careers will benefit, being more able to cope with change in proactive and productive ways (Berger).

1.3.1 Design: the changing past

In 1998, Paula Scher was inducted into the Art Directors Club Hall of Fame. Twenty-six years earlier, in 1972, she began her career designing album covers for record labels (Art Directors Club). At the time, her desk would have been equipped with an Exacto knife, spray adhesive, and a pencil.

Throughout the years, Scher's desk would change dramatically and include new tools unimaginable to her younger self. A computer would make desktop publishing possible. Software would change the way she interacted with type, fonts, and layout. Phones would change the way she communicated with clients and consumers. The internet would change the way she found information and inspiration. Old words like "film", "Rubylith", and "Speedball" would be replaced with new words like "Photoshop", "website", and "gigabytes" (Schneider).

Today, in 2015, Scher is a partner at heralded design house Pentagram. Her career, like those before her, has been marked by remarkable change. For example, when looking at her first album covers the record sleeve was a foot in diameter, cardboard, and pasted together. Logos were hand drawn. Type was hand-set. The layout was photographed on film and developed in chemical baths. Forty years later, the record sleeve has shrunk to postage stamp size and is often experienced digitally, on a screen. The shape may have remained the same, but the production and product have changed drastically.

1.3.2 Design: the changing present

The current generation of professional designers may face a period of similarly unprecedented technological change. Consider the pace at which modern design tools are actively changing. Design software, computer hardware, printing hardware, cameras, html versions, and operating systems all have lifecycles of roughly one year in length.

Not just a designer's tools, but the very world surrounding design is changing as well. Society is experiencing shifting mindsets, expanding choices in media consumption, globalization, communication breakthroughs, and expanding visual references. Methods are changing and the audience is changing. Undoubtedly, the present world of design is changing.

Thomas L. Friedman, in his book *The World is Flat*, reiterates, "...the great challenge for our time will be to absorb these changes in ways that do not overwhelm people or leave them behind. None of this will be easy. But this is our task. It is inevitable and unavoidable." (50).

1.3.3 Design: The changing future

Indeed, technology has driven great change in the past, and it is fueling rapid changes in the present. If this is true, what should designers expect in the future? Perhaps more change than ever.

Moore's Law predicts that circuit chips will double in capacity every 18 months, and states that this will increase exponentially over time, not linearly (How to Predict). This has proven itself since 1965. Kurzweil's Law of Accelerating Returns goes even further and suggests that "we won't experience 100 years of progress in the 21st century — it will be more like 20,000 years of progress (at today's rate)." (KurzweilAI).

Humans have more access to information than ever, more communication than ever, and more manpower to use it. Add to this a larger, more competitive workforce and suddenly it becomes more important than ever for designers to become future-proof.

If, indeed, rapid change is coming, designers must keep up with changes in order to survive. Like Scher and her contemporaries, designers must stay flexible, malleable, adaptable, and use each new tool to further communicate powerful ideas.

The following six skills have been identified as skills that aid designers in enjoying long and successful careers. These specific skills were generated by surveying design professionals and instructors, and reinforced through a literature review and workplace experience. These six skills add value to designers, and allow them to thrive amidst changing technologies. Based on survey results, educators would be wise to instill the importance of these skills, and to implement their training into current and future design curriculum.

1.4 Definition of Research Method

1.4.1 Participants

A survey questionnaire was sent via email to a random sample of 200 graphic design professionals in director positions, whose names were obtained from the AIGA member list and to 100 graphic design instructors, whose names were obtained from top-rated college and university programs in the United States. Forty-three participants responded, which represents fourteen percent of those contacted. Of the two hundred professional designers contacted, thirty-four responded. Of the one hundred design educators contacted, nine responded.

Participants represented a variety of positions including creative directors, art directors and university professors; and a variety of work environments, including agencies, in-house departments, and schools from across the United States. Forty-four percent of participants were male, while fifty-four percent were female. Twenty-four percent of participants had greater than 30 years of experience in a design-related position, twenty-seven percent had 20-29 years of experience, thirty-nine percent had 10-19 years of experience, and nine percent had less than 10 years of experience.

1.4.2 Instrumentation

The instrument was made available to participants online. It consisted of 10 questions, focused on identifying the top skills and characteristics participants believed designers need in order to have long and successful careers. A mix of demographic, multiple choice, Likert scale, and short response items were included. For full survey and answers, please see Appendix A, page 60.

1.5 Six Key Skills Identified

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:”. Fifty-eight skills were listed, and participants were asked to choose which they perceived to be the top 5 skills. Terms chosen by more than 25% of participants included:

- Creative
- Collaborative
- Adaptable/Flexible
- Communicative/Well-spoken
- Industrious/Productive
- Curious

Findings from this study suggest that these six skills should be implemented into design education curriculum. Inclusion of these skills in design education programs will serve as building blocks that help lay a solid foundation for students, inspire instructors, and add value throughout a designer’s career.

1.6 Who Benefits?

1.6.1 Students

Survey participants were asked: “In your opinion, how prepared are today’s designers when they first enter the workforce?” Responses are as follows:

Table 1.1: How prepared are today's designers when they first enter the workforce?

Not at all:	02%
Not Very:	22%
Somewhat:	65%
Very:	11%
Completely:	00%

Students are investing large amounts of money and often four or more valuable years into training for the design profession. Yet, if these survey results are representative, the vast majority of professionals who will hire new graduates only see them as “Somewhat” (65%), or “Not Very” (22%) prepared. This apparent disconnect between investment and return raises concerns and questions. What is it that educators and design curricula should be emphasizing that they are not? The goal of this study is to identify those aspects, and to explain how they might benefit students.

1.6.2 Educators

Another goal of this study is to equip design educators with an avenue for success. This study may reinforce current methods and procedures used in design education programs, or perhaps spawn new ideas and approaches for effectively preparing students for their upcoming professional lives. Pathways for integrating future-proof skills into current curriculum are included, as well as examples of courses designed and focused on each skill.

1.6.3 Society

Much of the world’s correspondence moves through the hands of designers. A great store of creativity and potential lies within designers’ ranks for addressing this correspondence. Not only will implementing these thinking and operational skills improve the communication abilities of society’s information shapers, it may unlock their potential for solving problems bigger than logos or typesetting. It may help designers tell the world’s most pressing stories, and generate ideas that help solve its most dire problems. Professor Dr. Deborah Morrison

advocates, "The brute force of intellect and creativity our profession offers the world is evident." (Schenck 18)

CHAPTER 2. SKILL 1: CREATIVITY

2.1 Skill Personified

Adman Bill Bernbach has been dubbed the single most influential creative force in advertising's history (*Advertising Age*). In a time when the advertising industry was talking down to, or around, the public, Bernbach stood up and said, "Let us prove to the world that good taste, good art, and good writing can be good selling." (Bernbach 1947) This mailroom boy turned industry giant ended his career with his agency having billed out \$1.2 billion in creative work. He was behind such memorable and altering ads as Volkswagen's "Think Small" campaign, Avis's "We Try Harder", and Polaroid's "Big Heads" campaign. He teamed up art and copy and ushered in the modern day creative department. Bernbach's heralded Art Director Helmet Krone said "He elevated advertising to high art and our jobs to a profession." Yes, he was in the selling business, but to Bernbach, selling was about getting people to listen to you, "...and people won't listen to you if you're not interesting, and you won't be interesting unless you say things imaginatively, originally, freshly."

How will designers differentiate themselves in a growing, well-educated workforce? One solution may be to follow Bernbach's lead and solving problems in imaginative, original, and fresh ways.

2.2 Definition

The concept of creativity is difficult to properly define, and many authors on the subject admit such. Heralded physicist David Bohm suggests that creativity is indeed "impossible to define in words (1)". Nevertheless, words are needed in order to discuss the topic. *Random House Dictionary* defines creativity as "the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, etc.; originality, progressiveness, or imagination." Perhaps the most helpful perspective on the subject of creativity comes from education specialist Dr. Ken Robinson, who in his book *Out of*

our Minds: Learning to be Creative, insightfully defines creativity as “the process of having original ideas that have value (151).” Emphasis is placed on creativity being a process, being original in some manner, and having value.

Robinson differentiates this from the concept of being imaginative, which he states “is the ability to bring to mind things that are not present to our senses (140).” While imagining, nothing need further be done. Creativity, alternatively, takes this a step further and does something.

Robinson also differentiates the concept of innovation. Innovation, he states, is “*applied* creativity.” It is “putting new ideas into practice”, usually in an assumed beneficial way (142).

Michael Kirton insightfully provides another branch of creativity he labels *adaptation*. Adaptation focuses on working within frameworks to steadily make improvements upon what already exists. Though innovation, with its large scale departure style, is often heralded as a chief aim of creativity; adaptation can be used to great success in creative outcomes and problem solving (622).

2.2.1 Important aspects of creativity for use in the design field

- Ability to tolerate ambiguity with increasing comfort (Nickerson)
- Ability to spend appropriate time ‘Problem Finding’ at the beginning of projects to identify the most important question to address (Nickerson)
- Ability to think critically (Oldach 88)
- Ability to associate (Dyer 41-63)
- Ability to experiment (Dyer 133-152)
- Ability to utilize new technologies to unlock previously unknown creativity

2.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:” A total of 58 skills were listed and participants were asked to choose which they perceived to be the top 5 skills. (See Appendix A for complete results.)

The term “creative” was selected as a top 5 skill by 60.47% of participants. Creative was the most popular term chosen. Other terms that may potentially fall into the creative category include: “imaginative/clever (8 responses), “innovative” (5 responses), “open-minded”

(9 responses). This group of terms garnered 48 total responses, which is the greatest of all group totals.

2.3.1 Most important skill

In a follow-up question, participants were asked to choose the *most important* skill from their selections. Creative was chosen by 26.8% of participants as the most important skill, which was the most popular term chosen. Responses that focused on creativity included:

- “Creative. It's all about coming up with or contributing to the "big idea" and recognizing it when you see it.”
- “Creative, without creativity it is VERY hard to be a creative professional.”
- “Creative. Without this the rest doesn't make sense.”
- “Innovative: great design is problem solving at its best and you can't make anything great without thinking about what else is possible.”
- “Creative because we are paid to think/dream of things that others would not have.”
- “Creative. Each project will have its own set of challenges. You will be responsible to find a new "right" solution with every job.”
- “Creative. All success as a designer comes from this. Otherwise you are merely a craftsman, which is important but not unique.”
- “Creative, because that's where you present your real value. That's what people hire you for.”

2.3.2 Attributes of best designers

Participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Responses that included the concept of creativity included:

- “Great work. A new way of looking at something.”
- “... They can transform any concept or idea and breathe life into it. Most often, it is the re-thinking of the simplest idea, object, or concept.”
- “Creative and open to collaboration”
- “Open and creative along with informed”
- “...innovative thinking and vision, guts.”
- “Ability to get past the first round of ideas to the second/third/fourth round where the ideas really are creative problem solving.”
- “They show you completely new way of looking at something.”
- “Their ability to find solutions to the problems that show up. Their creativity”
- “They are ultra creative while being well-spoken and entrepreneurial!!!! A powerful trifecta.”
- “Tremendous drive to create...”

2.3.3 Personal success

Participants were asked to “Identify any characteristic or skill that has played a major role in their personal success as a designer.” Responses that included the concept of creativity included:

- “Being able to offer a variety of solutions. And being confident in any of them.”
- “Creativity with understanding of the market and project at hand...”
- “Flexibility and Creativity.”
- “Creativity and being responsible.”

2.3.4 Advice for design students

Participants were asked to offer advice to design students. Responses that included the concept of creativity included:

- “Being able to use design software is not what makes you a designer. Being able to concept and develop solutions to visual problems is what makes you a designer.”
- “Iterations are a good thing. Usually your first 20 ideas are mediocre and expected. But at the same time, sometimes the simplest solutions are best. You can't always have a custom package with 8 inks and a custom foil stamp. Fancy printing doesn't make up for good design - you shouldn't need it.”
- “Don't over focus on the tools/software; focus on solving problems.”

2.4 The Importance of Creativity

2.4.1 “The differentiator”

Creativity, when implemented, will likely manifest benefits across all professional fields, including such “intellectual” pursuits as the sciences, mathematics, and economics. However, it is in the arts, and particularly the design fields, that we see a cultural assumption of creative abilities. It is creativity—the survey’s most common response—that is the differentiating and foundational mark of a designer. The “creative department” moniker is indeed meaningful. Increasingly, companies list creative abilities as highly sought after and coveted additions to the workplace (“What Chief Executives”). Because of this, we must prepare design students by fostering the creativity they currently exhibit, cultivating alternative measures, and broadening their potential for quality creative thought.

2.4.2 Impacts humanity

Human creativity has been the catalyst for some of history's greatest advances. Sharpened rocks, makeshift wheels, symbol systems, musical instruments, watches and iPhones were all the product of creative thought. Creativity has sparked medical advances, agricultural technologies, and the exploration of new worlds. Societies must continue to pursue creative thought, because the human race is not a static thing. Cultures evolve, with creativity as the driving force. To strengthen a student's ability to be inspired and to inspire others allows them to actively participate, contribute, and lead, rather than passively observe change.

2.5 Teaching Creativity

A common misconception embraced by many is that creativity is a given trait born into a select few individuals. While it may be true that nature plays a role in creative thought, research implies that everyone is a creative being, and this trait can indeed be nurtured and strengthened. (Runco 22; Heilman 163-178)

2.5.1 Focusing the classroom

Professor Ken Robinson has conducted assessments of education systems around the world and suggests methods of integrating creativity into the curriculum. He writes: "In teaching for creativity, teachers aim to:

- Promote experiment and inquiry and a willingness to make mistakes,
- Encourage generative thought, free from immediate criticism,
- Encourage the expression of personal ideas and feelings,
- Convey an understanding of phases in creative work and the need for time,
- Develop an awareness of the roles of intuition and aesthetic processes,
- Encourage students to play with ideas and conjecture about possibilities, and
- Facilitate critical evaluation of ideas." (Robinson, 270)

2.5.2 Association and Experimentation

Two important skills educators can encourage in design students and incorporate into curriculums are association and experimentation.

The skill of associating, also referred to as lateral thinking, horizontal thinking, or divergent thinking, focuses on making connections across seemingly unrelated disciplines. Evidence reveals that creative individuals have routinely exhibited this ability to draw from

multiple facets to be an important contributor to creative ideas and solutions. Some historic breakthroughs have been a product of combining two otherwise disparate ideas together. Skilled associators strive to accumulate broad and diverse knowledge. (Dyer 41-64; Bono; Gladwell; Baer; Oldach 55)

The skill of experimenting focuses on a willingness to play and discover. Exercises may center around new experiences, new places, and new information. Objects and ideas should be dismantled, hypothesis should be tested, and clichés and commonsense should be held at bay. (Dyer, ch. 6)

2.5.3 Unlocking creative thought

Creativity consultant for Fortune 500 companies, Roger von Oech, Ph.D, offers ten ways to “Open Mental Locks” and kick start creative thinking. These support previous concepts, and are (Oech):

- Do not assume there is only 1 right answer. Look for the second right answer, etc.
- Incorporate “soft” thinking (i.e. metaphors, humor, fantasy) in the birthing phase of a project.
- Be flexible with rules.
- Don’t be practical all the time. “Ask ‘what-if’ questions and use the provocative answers as stepping stones to new ideas.
- Embrace ambiguity. Pose ambiguous questions. Look for more than one meaning in things.
- Failure is okay. It teaches you what doesn’t work and give you an opportunity to try a new approach.
- Play. Incorporate mental and physical play into your routine.
- Don’t over-specialize. Cross boundaries in work and thought.
- Be foolish. Do not over-conform to common knowledge and groupthink.
- Tell yourself you are creative. Do not be brought down by false assumptions.

2.5.4 Provide a framework

Creativity rarely arrives unimpeded from the ether. Rather, it is usually a product of working within a defined set of rules. This allows students the ability to creatively fulfill the requirements, solve the problem, and improve the project. Without this, students may be prone to list aimlessly and be frozen with limitless possibilities and no rubric for success. (Oldach 54, 89; Robinson 152)

Dancers are given a stage to dance upon, and within those guidelines, they create. The rules of a given design project provide the dancefloor. Musician Joseph Linkner reiterates, “the structure of jazz allows great musicians to improvise (22)”.

2.5.5 Critical Thinking

Another important aspect of creativity is the ability to refine ideas and critically narrow them down to proper solutions. While in the germination phase of ideas, focus should be on expanding and not narrowing possible solutions. However, once an idea has reached the practical phase, honing in on best solutions should be encouraged. This too is a thought process that should be trained and strengthened like a muscle. Award-winning designer Mark Oldach suggests three phases:

- Review the Objectives
- Eliminate ideas
- Refine and grow your best ideas (88-105)

2.6 Including Creativity in Current Curriculum

Most design classrooms will naturally exhibit a creative bent. It is the nature of design projects to follow a creative thought process. However, focused creative training can be introduced and elevated in existing curriculums to the great benefit of the students and their work. The following three sections will provide easy to implement examples.

2.6.1 Creative warm-ups

Begin each class period with a 10-15 minute quick-fire challenge designed to get the creative juices flowing. These should be loose, lighthearted, and inclusive. Remember, building an atmosphere of trust and willingness to take risks is important.

For example, huddle students in the center of the room. Pass an empty bucket around the circle. As someone is holding the bucket, they must think of a new use for it. Perhaps start with practical uses and move toward impractical. No idea is too ridiculous. As an option, the instructor may set a short time limit for each student and eliminate those who get stumped until a winner is left. This exercise should focus on divergent thought.

2.6.2 Idea Books

Often, the execution phase of a project is emphasized to the detriment of the idea-generation phase. Allow ample time at the beginning of the project for broad, deep thinking. Require students to fill out and turn in idea books full of concepts for each project. As an option, have students exchange idea books for the inspiration and formation of new ideas.

2.6.3 2nd Right Answer

Halfway through a project, require students to start over and execute an idea not currently being worked on. This step may be repeated multiple times. Another option that can be used includes adding a new stipulation or additional objective to the original task in question.

2.7 Made-from-Scratch Curriculum

What follows is an example of what a course might look like if it were designed around teaching the skill of Creativity.

2.7.1 Overview of curriculum

The intention of this curriculum model is to facilitate a classroom involving interaction, participation, and freedom of thought. Key principles of the model include associating, experimentation, play, curiosity, and critical thinking. Creative exercises range from humorous to serious. Utilizing each of the human senses is a priority in classroom exercises. Students will be asked to move beyond their initial responses in creating solutions.

2.7.2 Excerpt from Example Lessons

See Appendix B for full Curriculum.

See Appendix H for documentation of Week 8 lesson with collegiate design students.

Unit 1: Junk Pile

- *Brief Description:* Students are provided with a selection of miscellaneous objects set in the middle of the studio. After being divided up into teams, they will be asked to create a sculpture from the objects. Every 20 minutes they will be asked to return everything to the pile and start afresh. Before returning objects to the pile, photographs will be taken of the sculptures to provide a record of responses from each team.

- *Homework:* For next class- Bring 3 sketches of new sculptures using the same objects we had in the classroom.
- *Assessment:* Students will be evaluated based on the following criteria: Contribution to team; and ability and willingness to create a variety of sculptures.

Unit 7: Fort Building

- *Brief Description:* Cushions, chairs, sheets, easels, ect. Will be available in the room. Students will be asked to build a fort. Every 20 minutes, they will tear down the fort and start fresh on a completely different layout. Project managers will be assigned.
- *Homework:* Build a fort in your dorm room or apartment, photograph it, and add it to the class flickr page.
- *Assessment:* Students will be evaluated using the following criteria: Willingness to contribute; ability to lead and follow.

Unit 8: Bent Objects

- *Brief Description:* Present class with bent objects: <http://bentobjects.blogspot.com/> Present students with themes (example: heartbreak) or objects (example: grape), and ask them to sketch ideas for bent objects of their own. Brainstorm individually, in small groups, and as a class.
- *Homework:* Sketch 3 more ideas using objects in your room. Photograph your best idea and upload to class flickr with title.
- *Assessment:* Students will be evaluated based on the following criteria: Creativity of work; diversity of ideas; Sketchbook and final photo.

CHAPTER 3. SKILL 2: COLLABORATIVE

3.1 Skill Personified

Yo-Yo Ma may be the definitive cellist of the modern era. His technical skill and musicianship are praised and lauded. Presidents invite him to play for them and concert halls sell out to hear his musicianship. For some, this would be an opportunity to stay within themselves and stick with what is comfortable. Not Ma, as his career has been marked by a desire to collaborate and challenge himself. He has collaborated with more than 35 artists of note, from such varying genres as bluegrass, jazz, and classical. He has performed alongside banjos, mandolins, and pianos and he has traveled the world in search of new ideas. Furthermore, Ma established the Silk Road Project to encourage the collaboration of musicians, performers, and composers from around the globe and to encourage the sharing of ideas across fields such as science, education, music and business (Silk Road). By continuing to add diversity of thought and sound to his life, Yo-Yo Ma and his music have continued to grow and flourish.

3.2 Definition

At its most basic, to collaborate means to work alongside or in conjunction with others (collaborate). However, when speaking about equipping designers to be collaborative, emphasis should be placed on engaging others in idea formation that is productive, creative, and fruitful. Collaboration is not about having the most capable people working together; rather, it is about having them work together in concert (Neumeier 317).

3.2.1 Important aspects of collaboration for use in the design field

- Ability to effectively contribute to small groups (Kelly 80)
- Ability to effectively contribute to brainstorm and idea-generating sessions
- Ability to listen to, understand and learn from others
- Ability to work alongside experts in other disciplines to achieve a goal
- Ability to work in harmony with clients toward success

- Ability to plan and lead a successful meeting (Kelly 80)
- Ability to manage conflict in a healthy manner

3.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:” A total of 58 skills were listed. Participants were asked to choose those skills they perceived as being the top 5 skills. (See Appendix A for complete results)

The term “collaborative” was selected as a top skill by 48.84% of those surveyed. Collaborative was the second most popular term chosen. Other terms that may potentially fall under the collaborative family include: “cooperative” (2 responses), “facilitating” (2 responses), “diplomatic (3 responses). This family of terms garnered 28 total responses.

3.3.1 Most important skill

In a follow-up question, participants were asked to choose the *most important* skill from their selections. Answers that focused on collaboration included:

- “Collaborative. No project is an island. The more successful the collaboration, the more successful the project.”
- “Collaborative. That's central to every project.”
- “Collaboration is very important. It allows different perspectives to be seen and can help iron out potential flaws. Also, in a creative environment, collaboration generally leads to a higher output of ideas and a higher probability of arriving at a better solution.”
- “Collaborative. No matter how good a designer you are, if you can't work with people you won't go far.”

3.3.2 Attributes of best designer

Participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Answers that included the concept of collaboration included:

- “She was very open to ideas and could work with them to make the client happy”
- “Creative and open to collaboration”
- “true collaborative with no ego or personal agenda”
- “a collaborative nature”
- “quality of collaboration”

3.3.3 Personal success

Participants were asked to “Identify any characteristic or skill that played a major role in their personal success as a designer.” Answers that included the concept of collaboration included:

- “I believe my ability to interact with others has allowed me to contribute but also, to significantly learn from others--whether they are peers or leaders.”
- “Being able to work with multiple personalities. Being able to build trust in relationships.”

3.3.4 Advice for design students

Participants were asked to offer one piece of advice to design students. Answers that included the concept of collaboration included:

- “Don’t give up. Don't stop at your first idea. Collaborate -- it might take you in some new directions.”
- “... Taking a step outside the design studio and connecting with other disciplines gives you a more specific or holistic perspective on your role as a designer.
- “Don't compete, collaborate.”
- “Surround yourself with people who are smarter than you and let them concentrate on what they are good at and let yourself do the same.”
- “Know your weakness and find people to collaborate with. Learn to work with others and do better work on a team than as an individual. Set your ego aside.”

3.4 The Importance of Collaboration

Designer Michael Janda asserts, “If you want to succeed in your career as a graphic designer, you need to focus time and energy into developing your interpersonal skills (5).” Indeed, collaborative efforts improve both designs, and designers (52). Students must be exposed to group work and collaborative projects. By teaching designers how to effectively collaborate they will bring with them to their workplaces a solution for generating creativity and innovation, a heightened ability and desire to work with others, and a working knowledge of how groups achieve goals in concert with one another. It is also important to note, “employers value group-based learning, because of the many transferable skills participants acquire through working collaboratively (Maxwell 20).”

Ken Robinson adds, “Individual creativity is almost always stimulated by the work, ideas, and achievement of other people (94).” The idea of a lone creative genius is unrealistic. This is

most certainly true in the work of a designer. Projects will be the work of many hands and many minds (Sawyer).

3.4.1 Networking

The skill of networking focuses on “finding and testing ideas through a diverse network of individuals who vary wildly in their background and perspectives (Dyer 24).” Research has shown that many successful innovators are networkers. “They actively search for new ideas by talking to people who may offer radically different view of things (Dyer 24).” Diversity leads to creativity. Encourage students to seek out and surround themselves with diversity in all of its forms. See section 3.5.2 for further information on diversity and collaboration.

3.5 Teaching Collaboration

Classrooms are naturally collaborative spaces. Educators should aim to facilitate healthy collaboration that develops students’ interpersonal skills, expands and improves their creative solutions, and prepares them for diverse workplace environments.

3.5.1 Create a safe environment

The process of collaboration needs to be modelled, practiced, and nurtured so that group members gradually feel safe enough to participate fully and ultimately to take risks (Bryan 55). Rosalind Searle’s findings on creating successful collaboration in the workplace support this idea: “Creativity is a collaborative process which involves both social and task-related elements, and requires a working environment in which staff feel able to take risks by thinking differently and in the knowledge that their efforts will not be sanctioned or ridiculed (184).” Groups are most productive when the members feel a sense of trust. Searle continues, “During idea-generation, trust and perceptions of safety can be enhanced if suggestions are not questioned, challenged, ridiculed, or ignored (179).”

Trust not only helps individuals feel safe and willing to contribute, it has the added impact of making them better, more creative teammates in the future by building up self-confidence in their creative abilities. Mark Oldach, when discussing the art of brainstorming, asserts, “Mutual trust and respect for all group members will produce better results.” One study

even suggests using physical trust work at the beginning of a new group in order to build trust and comfort for creative collaboration later (Bryan 57).

3.5.2 Diversify

Dr. Meredith Belbin has devoted decades to the study of collaboration in the workplace. He reported that, “Teams containing people with a variety of cognitive styles and preferred work roles are known to be more successful than those that are less mixed (Belbin 1993).” However, working in a diverse group is not always easy, as psychologist Jane Henry observes, “It is often easier for people with the same cognitive style to communicate with each other than those of different styles, but in the longer run groups with a mix of personality types are more likely to consider a wider range of options (158).”

Consider integrating disciplines outside of the design fields in collaborative exercises. This more closely resembles the makeup of workplaces, where account executives, writers, artists, accountants, and business leaders often join together on projects. This diversity often helps lead to surprising and robust ideas. For example, composers and architects, seemingly disparate fields, have collaborated throughout history to great success. As outlined by Professors Tim Sharp and Jim Lutz, this combination has succeeded in creating spaces with improved acoustic, aesthetic, and holistic appeal throughout history (189).

3.5.3 Encourage participation

Each student should feel a sense of responsibility, not only for themselves, but for every member of the group. Helpful, honest, and focused participation by all should be a point of emphasis during collaborative projects. It is also important to encourage students to assume a “Communal Brain” while in brainstorming exercises and to understand that ideas generated by individuals belong to everyone. Each idea builds on others and leads to group solutions (Janda 150).

3.5.4 Assessing the creative work of groups

The current and pervasive approach to higher education today places a great deal of emphasis on the assessment of individual students’ learning. This emphasis can be problematic when discussing group work. However, certain assessments and processes can aid in assessing a

collaborative, teamwork-focused curriculum. Assessment should value “process” as much as “product” (Bryan 54).

This can pose a challenge, as many students who work in groups either feel unprepared for collaborative creativity or fear unbalanced or negative contributions from the group (Bryan 52). It is the facilitator’s job to help alleviate these fears, and prepare groups for healthy collaboration. Only after students have experienced working collaboratively in a safe environment and applying some basic group dynamic instructions and approaches should formal assessment be considered. Assessment criteria should be explained at the beginning of the activity in order to inform students about outcomes and behaviors that will be evaluated.

Allowing students to practice self-assessment can positively affect their experience and retention of learning. It helps them to clearly understand their goals and to understand how they will be evaluated by others. Students may participate in “self and peer evaluation, self and peer grading, forms of individual and group guided reflection, as well as external observation and feedback. This process of self-monitoring was also externally evaluated and judged to be both rigorous and transformative (Rust).”

Problem Based Learning Workshops suggest students to self-assess in the following manner:

Give a mark of 1-5 (5 highest) for:

- How well the group achieved the task stated.
- How well you think you contributed to achieve the group task;
- How well the group functioned as a group based on your knowledge of group dynamics;
- How well you think you performed as a group member based on your knowledge of group dynamics. (Bryan 61)

3.5.5 Provide sufficient challenge

Center group projects around a problem or task to be completed. The task must be clearly specified, including the time available in which to complete it and the task must be sufficiently challenging or complex, thus requiring creative collaboration to determine a workable solution. To focus the group, instruct groups to carry out a task in a specified time. Some students may be asked to observe the group and make notes about the work of the group. When time has expired, have the group listen to observers without response. Focus on encouraging risk-taking and experimenting with new ideas in a way that doesn’t discourage students. (Bryan 61)

3.6 Including Collaboration in Current Curriculum

3.6.1 Seeing is believing

Have students observe groups functioning at a high level in creative collaboration. This may be accomplished by watching video, listening to audio recordings, or watching in-class demonstrations. Discuss what works, what does not, and why. Discuss roles of team members. Discuss how risks were taken and how the group responded. Discuss how conflict was worked through.

3.6.2 Include group projects

Transform a previously individual design task into a group project. Organize groups based on personalities, assumed roles, or diversity. Consider partnering with other disciplines on campus or in the community to further reflect collaboration in the workforce.

3.6.3 Role reversals

During group projects, periodically change or alter roles of group members. Change leaders and given tasks to create new challenges and uncertainty that must be resolved. Designers must realize they will fulfill multiple roles within collaborative groups throughout their career, and prepare for this.

3.7 Made-from-Scratch Curriculum

What follows is an example of what a course might look like if it were designed around teaching the skill of Collaboration.

3.7.1 Overview of curriculum

Because workplaces are rarely solitary, students will learn to work in diverse groups toward a common goal. Multidisciplinary in nature, this class will be a collaboration between writing students, business/marketing students, design students, and local businesses. Key principles include: (1) how to think collaboratively, (2) contribute meaningfully, and (3) carry ideas through to their end in a group environment. Two Collaborative classes are proposed to be taken during the final two years of a student's education.

3.7.2 Excerpt Example Lesson from Collaborative Thought I

See Appendix C for full Curriculum.

Weeks 1-6: Students will be grouped randomly each class period and asked to solve problems together. These exercises will focus on the process of generating a worthwhile idea together rather than seeing the idea become a reality. Project subject matter will be varied to accommodate the diversity in this classroom.

Example:

Week 1: Crayon boxes

- **Primary focus:** Group decision making.
- **Secondary focus:** The importance of editing and critical thinking in design.
- **In-class Activity:** Class will break up into groups. Each group will have one full box of 96 crayons, and empty boxes for 48, 24, 12, and 3. They will reduce 96 crayons down to 48, 48 to 24, 24 to 12, and 12 to 3. Leaving the stages in their boxes, they will present their thought processes and reasoning to the class. Class will then discuss similarities and differences between groups.
- **Homework:** Add 3 new colors to the box of 96 colors. Present as a group why you have chosen these colors to the class.
- **Learning Points include the following:** Group roles, conflict management, cooperation, listening, editing down, reasoning, color selection, presentation skills.
- **Students will be assessed with the following criteria:** Contribution to discussion and group, presentation skills, reasoning skills, participation, quality of work.

CHAPTER 4. SKILL 3: ADAPTABILITY/FLEXIBILITY

4.1 Skill Personified

College basketball is an ever-changing entity. Each year new players arrive on campuses while others leave. Each year the competition changes, strategies change, rules change, and the game evolves. In order to find success, coaches must adapt quickly, and stay flexible, potentially within seconds as time ticks off of a game clock. Perhaps no coach in all of American sport personifies coaching success more than John Wooden, who took U.C.L.A. from a faltering, losing program to winning ten national championships with seven of those in a row. He won coach of the year six times in that span. Wooden, once a poor young farm boy, who practiced with a rolled up sock and tomato basket, would go on to be the first man inducted into the Hall of Fame as both a coach and a player (Davis). Adaptability helped lead him there.

As in sport, the design game is changing too. Designers would do well to heed Coach Wooden's wise words, "Flexibility is the key to stability".

4.2 Definition

Random House Dictionary defines adaptability as "the ability to adjust to different situations or conditions." When discussing how to prepare designers for success throughout a changing future, it is reasonable to suggest that the ability to adapt and stay flexible is a central focus. This includes a willingness to expect change, embrace change, and even create change if required.

4.2.1 Important aspects of adaptability for use in the design field

- Learning to respond to the word "No."
- Learning new design and consumption technologies as they appear
- Learning new tools for design
- Learning new strategies and markets for design
- Learning to accept that change is inevitable and constant
- Learning to learn effectively

4.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:”. A total of 58 skills were listed, and participants were asked to choose which they perceived to be the top five skills. (See Appendix A for complete results)

The term “adaptable/flexible” was selected as a top five skill by 41.86% of those surveyed. Adaptable/flexible tied for the third most popular term chosen. Another term that may potentially fall under the adaptable/flexible category is: “resilient” (7 responses). This group of terms garnered 25 total responses.

4.3.1 Most important skill

In a follow-up question, participants were asked to choose the *most important* skill from their selections. Adaptable/flexible was chosen by 19.5% of participants, which was the second most popular term chosen. Answers that focused on adaptability included:

- “Adaptable/Flexible. Working with others required a level of flexibility in all things. Schedules move. Projects evolve. And our professional landscape is also quickly changing. What I started out doing when I graduated from school is quite different then what I am doing day to day now.”
- “Adaptability and flexibility, design is constantly changing and they need to be able to keep up with trends”
- “Adaptable: the field is constantly changing.”
- “Adaptable/Flexible because in a long career, you'll experience so many changes in the world and the work environment. Changes that you couldn't foresee, and you need to adapt to them and move on.”
- “Adaptable/Flexible. We are in the information age and technology changes daily as we basically live in Beta mode.”
- “Adaptable. You might get a new boss who thinks differently than your old boss. Technology is always changing. The market is always changing. An idea you love might get rejected. But if you are adaptable, you can recycle it into something that gets the thumbs up.”
- “Resiliency is a key trait for success in any long-term career, because uncertainty in life, aka Change, is the rule, not the exception.”

4.3.2 Attributes of best designers

Participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Answers that included the concept of adaptability included:

- “Constantly learning, bettering themselves. Challenging themselves, knowing the latest trends.”

4.3.3 Personal success

Participants were asked to “identify a characteristic or skill that has played a major role in their personal success as a designer.” Answers that included the concept of adaptability included:

- “Adaptability, willingness to take on new roles and tasks and learn on the job.”
- “Adaptability”
- “Adaptability”
- “Adaptability”
- “Flexibility”
- “Flexibility”
- “I am resilient, and I expect change.”
- “Challenging myself. Patience. Sense of humor. Staying on top of applications/skills/trends.”

4.3.4 Advice for design students

Participants were asked to give advice for design students. Answers that included the concept of adaptability included:

- “A good student knows how to teach himself or herself.”
- “Learn how to learn efficiently.”
- “Never stop challenging yourself / your design style. Continue to develop and grow your skills.”
- “Read broadly, observe closely, self-educate. Your understanding of design is a lifelong undertaking.”
- “Always be willing to learn, fail, and get back up again.”
- “Keep learning once you leave school. The design field has changed radically since I started in it, and new interests and sub-disciplines will continue to become available if you remain open to them.”

4.4 The Importance of Being Adaptable

Change is inevitable. It is seen in the past, the present, and increasingly in the future. Designers must learn to navigate change in order to survive in the competitive workplace of today and tomorrow. Implementing adaptability into their working and personal lives can help professionals begin this journey. A designer must learn to learn, learn to embrace change, and learn to create change. In doing so, they are equipping themselves to survive the coming

changes. Furthermore, informed learners, change agents, and innovators may do more than merely survive, but rather, they may thrive amidst change. As American poet Michael McGriffy playfully pens, “Blessed are the flexible, for they shall not be bent out of shape.”

4.5 Teaching Adaptability

4.5.1 Teach students to learn

Learning to learn is the firm foundation for a career that thrives amidst a changing technological landscape. When one becomes adept at learning new skills, changes faced are no longer roadblocks. Suddenly, they become bends in the road that lead to new and exciting places. Like a master chef who continues to taste new foods, a designer’s next great design ingredient may yet to be discovered.

Learners understand that the act of learning is not a hard-wired ability, unchangeable and pre-programmed into our genetic code. Rather, it is a skill that can be developed, strengthened, and utilized throughout a career. Studies find that self-regulated learning enhances achievement in both the classroom and workplace (Nilson).

Learners retain information in unique ways. No single method of learning is universal, and so individuals must evaluate the effectiveness of how they learn about new ideas (Lederman 8). By identifying enjoyable methods of learning, one can positively affect their understanding and retention (Pritchard). Methods include listening, visualizing, repeating, or enacting. Often, when the human senses are engaged in the learning process, the more effectively information is implanted into our minds (Medina).

Learners remind themselves that rarely does anything happen in large, intact pieces. Most often learning will occur in a series of small everyday changes that add up to something more complex later. For example, amazon.com, online retail giant, did not become fully realized in an instant. The site and its impact on society was the result of countless daily setbacks and advances (Stone). Indeed, a big idea may feel daunting and unattainable. However, when pursued incrementally, big ideas can soon become realities. When faced with a challenge, decide what the very first step in the process of learning will be. Each time a step is completed, move on to the next step.

4.5.2 Teach students to embrace change

Once designers learn to learn, they may also begin to love to learn. This opens possibilities of seeing change as an opportunity rather than an obstacle. It is no longer intimidating, but may become invigorating. Those who embrace change may become more willing to consider new developments of change positively. Because of this, change is less surprising or threatening. Excitement replaces hesitancy. Action replaces inaction (Godin).

Embracers ask “What’s next?”. They also integrate questions like “What if?” and “Why not?” into projects. Allot time for open-ended exploration and thought (Puriefoy). Embracers strive to look past temporary setbacks associated with change and see the bigger outcome. In doing so, they bolster a feeling of purpose, which is a powerful tool for encouragement. Encourage students, when faced with change, to compose lists detailing the reasons the change will ultimately be good. Alternatively, Embracers realize that inactivity may result in stagnation. Encourage students, when faced with change, to compose lists detailing the reasons not making the change could ultimately be harmful or not productive.

Embracers also understand that “the next best thing” is not always, truly, the next best thing. Sometimes new tools fail. Before rushing to embrace every change that manifests itself, help students learn to let situations fully develop in order to gain fuller understanding. Weigh time, effort, and financial costs against the benefits of change.

4.5.3 Teach students to create change

In 1999, Nick Swinmurn noticed that shoe stores in the mall didn’t always carry the size or color he desired. This poor experience led to an idea for an online shoe store, Zappos.com. Swinmurn would build the company on three principles. 1) One day, 30% of all retail transactions in the US will be online. 2) People will buy from the company with the best service and the best selection. 3) Zappos.com will be that online store.

Swinmurn created change. Moreover, he wrote change into the “Family Core Values” of Zappos. There, he asks employees to help drive change. “We must all learn not only to not fear change, but to also embrace it enthusiastically, and perhaps even more importantly, to encourage and drive it. We must always plan for and be prepared for constant change (Zappos.com).”

Accepting change when it comes may not always be enough. At times, innovation—the creation of change—will be necessary. Innovation may be required to solve a problem, communicate more effectively, fulfill ideas, or to stay competitive.

4.6 Including Adaptability in Current Curriculum

4.6.1 Look for learning

Begin each project by listing the learning opportunities involved within. Additionally, end each project by reviewing what new skill or knowledge has been gained.

4.6.2 Force flexibility

Periodically change assignments, tools available, project goals, and topics or timelines. After change has occurred and developed, discuss with students their reactions and the results produced by the change. Emphasize the importance of adapting.

4.6.3 History lesson

As an assignment is given, openly discuss with students how such a project would have been designed at different stages throughout history. Explore what tools were available, what societal norms would have existed, and present examples of such work. Also, push students to discuss how such a project may be done in the future. Allow students to brainstorm possible future changes.

4.7 Made-from-Scratch Curriculum

What follows is an example of what a course might look like if it were designed around teaching the skill of Adaptability.

4.7.1 Overview of curriculum

Change is inevitable. It is seen in the past, the present, and increasingly in the future. Designers must learn to navigate change in order to survive in the competitive workplace of today and tomorrow. Students will be presented with and asked to participate in finding examples of successes and failures that led to adaptation and change throughout history.

Students will learn various methods for learning and how to include this practice into their professional lives. The final section of the class will focus on teaching students to adapt along with a changing multi-week design project.

4.7.2 Excerpt Example Lesson from Adaptability I

See Appendix D for full Curriculum.

Example Assignments:

Weeks 11-15: The Ever-changing Project

This 5 week design project should require something due each week that will be assessed. However, each week a new alteration to the assignment will be added.

Students will feel the need to adapt firsthand and work through the stressful struggle of having to be flexible.

- **Week 11:** Develop a print advertisement for the Indianapolis Zoo that focuses on a specific animal of your choice. Show 3 concepts.
- **Week 12:** A new shark exhibit is coming to the Zoo, and they have decided to focus the ad on that exhibit. Revise your work accordingly. Show one polished ad, along with 5 concept roughs/sketches.
- **Week 13:** Instead of a print campaign, the zoo has decided to make this an online campaign. Revise your work accordingly.
- **Week 14:** The zoo wants this to be an interactive online ad. Please sketch 10 ideas for making the ad interactive.
- **Week 15:** The shark exhibit is running over budget and the zoo can no longer afford to advertise. Have the class brainstorm ways to affordably advertise the new exhibit.

CHAPTER 5. SKILL 4: COMMUNICATIVE/WELL-SPOKEN

5.1 Skill Personified

John Muir, naturalist and geologist, asks, “How little note is taken of the deeds of Nature! What paper publishes her reports? Who publishes the sheet-music of the winds, or the written music of water written in river-lines? Who reports the works and ways of the clouds, those wondrous creations coming into being every day like freshly upheaved mountains? And what record is kept of Nature's colors—the clothes she wears - of her birds, her beasts - her live-stock? (Muir 322)”

Muir worked hard at being the man who would publish on nature’s behalf. Upon his first visit, he fell in love with the Sierra Nevadas and basked in the beauty of Yosemite Valley. He was drawn to this wilderness, this “Cathedral” as he referred to it. To merely live in and enjoy this special place would not have been enough to preserve its allure. So Muir grew to be a prolific writer and speaker. He lobbied congress on behalf of the land, he guided newsmakers around the parks to see firsthand the great beauty and potential devastation. He writes, “Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike.”

Muir, moreover, had the attention of President Theodore Roosevelt, as he led him on a trip through the Yosemite backcountry for a time of respite and recreation. Muir was a gifted communicator, poet, scientist, and man committed to a cause. This wasn’t a man formally educated in persuasion or communication or marketing. Yet it is largely because of his advocacy that America enjoys a thriving National Parks System today.

5.2 Definition

Random House Dictionary defines the term well-spoken as “speaking in an apt, fitting, or pleasing manner”. For this discussion, we will use the terms well-spoken and communicative interchangeably to characterize a designer’s ability to purpose language—written or spoken—in

a manner that fits the context appropriately and is effective at sharing ideas clearly and purposefully.

5.2.1 Important aspects of communication for use in the design field

- Ability to effectively share ideas and concepts
- Ability to “Pitch” work to clients in a compelling manner
- Ability to persuade
- Ability to listen
- Ability to use non-verbal communication effectively
- Ability to use written communication effectively
- Ability to effectively prepare for conversations and presentations
- Ability to accept criticism in a healthy manner
- Ability to manage conflict
- Ability to communicate in a manner appropriate to the setting

5.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:” A total of 58 skills were listed, and participants were asked to choose those perceived to be the top five skills. (See Appendix A for complete results)

The term “well-spoken/communicative” was selected as a top five skill by 41.86% of participants. Well-spoken/communicative tied for the third most popular term chosen.

5.3.1 Attributes of best designer

In a follow up question, participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Answers that included the concept of communication included:

- “Good ideas presented simply.”
- “... They sold their ideas...”
- “They are ultra-creative while being well-spoken and entrepreneurial!!!! A powerful trifecta.”
- “The ability to cut to the essential of the problem/communication to make a complex idea simple and clear.”

5.3.2 Personal success

Participants were asked to “identify a characteristic or skill that has played a major role in their personal success as a designer.” Answers that included the concept of communication included:

- “Ability to communicate with clients and team members.”
- “Being able to work with multiple personalities. Being able to build trust in relationships.”
- “I believe my ability to interact with others has allowed me to contribute but also, to significantly learn from others--whether they are peers or leaders.”

5.3.3 Deficiencies of recent graduates

Participants were asked what general deficiencies young designers most often exhibit when entering the workforce. Answers that focused on the concept of communication include:

- “Inter-personal skills. Learning how to navigate conversations and present their work. Understanding of how to integrate business strategy into design.”
- “The ability to communicate well, to take in criticism and be open to other ideas is vital.”
- “Inability to talk about the decisions they make in their craft.”
- “...usually confidence if they are in front of the client.”
- “Slowing down and listening”
- “... listening skills...”
- “Inability to listen.”

5.4 The Importance of Being Communicative

A study of managers in American organizations reports that “... the skills most valued in the contemporary job-entry market are communication skills. The skills of oral communications (both interpersonal and public), listening, written communication and the trait of enthusiasm are seen as the most important (Curtis 13).” What we say and how we say it will affect designers’ professional and personal lives in ways that few other things will. Even the way we do not say things, our non-verbal cues, have great impact. In a simple exchange between two men, wholly nonverbal signals can “elicit perceptions of honesty, confidence, trust, liking, and status (Knapp 132).” Barbara Walters rightfully observes, “There are few times in your life when it isn’t too melodramatic to say your destiny hangs on the impression you make (Horn 3).”

5.4.1 In the communication business

A designer's entire career will be marked by various means of communication. They will constantly be required to share ideas through visual, written, and spoken means. Daily interactions with coworkers, clients, and consumers will impact them in powerful ways. In light of this, are design programs placing proper emphasis on the communication aspect of visual communication?

5.4.2 The work won't speak for itself

Design is a multilayered, complex undertaking complete with internal, external, and lateral forces working upon each project. Each person involved, whether creator, consumer, or client, brings a unique set of prejudices into the interpretation of a design. Because of this, designers must be able to present and discuss ideas in a meaningful manner. "The quality of how you talk about your ideas is going to affect how others perceive the quality of the actual ideas (Berkun)."

5.5 Teaching Communication

5.5.1 Learning as transaction

One method used in teaching resembles a one-way street. The instructor has information, and the students passively receive that information. This sender-centered form of instruction is appropriate in many settings. Another method, more appropriate for teaching communication, is that of a two-way street. Learning becomes a transaction between the instructor and students. A conversation is started, and students are made aware of their active stake in the learning process. They become accountable to the instructor, themselves, and their classmates. This environment is aided by developing relationships with students, and by taking into account relationships between students. Each of these is unique and will affect all communication within the classroom. Special focus should be placed on creating a "healthy, supportive learning environment." (Lederman 11-15)

5.5.2 Two ears, one mouth

It would be unfortunate to focus all of a student's attention on the skill of speaking to the exclusion of the equally important skill of listening well. "The essence of good listening is empathy, which can be achieved only by suspending our preoccupation with ourselves and entering into the experience of the other person (Nichols 10)." This allows students to truly understand what is being said, and shows the speaker that they are understood. Encourage students to not interrupt, to actively listen by asking questions and acknowledging and clarifying what has just been said. Discussions should not be simultaneous monologues. Purposeful listening will help designers understand projects more fully, enhance their working relationships, and help them lead and follow more effectively.

5.6 Including Communication in Current Curriculum

Many colleges and universities currently offer quality communication courses for students in various fields. One possible and relatively easy solution for institutions is to simply include these preexisting courses in a design student's curriculum. However, there are communication objectives and situations unique to designers that would not be covered in most communication classrooms. These unique communication goals and points of emphasis can and should be interwoven into current design-centric courses. A few examples follow.

5.6.1 Play it back

Record presentations and have students view themselves, critiquing their communication. Professional golfers record their swings in order to see what they do not naturally feel in their stroke. Designers, likewise, will benefit from seeing (non-verbal) and hearing (verbal) themselves communicate from a third-person vantage point. They should note points of emphasis on feedback and revisit those points over time to track improvement.

5.6.2 Client interaction

Integrate professional style interaction into assignments at various points along the project timeline. At the beginning of the assignment present projects as mock request for proposals (RFPs). At the end of the assignment, students should be asked to compose and send

follow up emails after critiques that summarize the discussion and present next objectives in a professional manner.

5.6.3 Valuable critiques

Most design classrooms will feature critiques of students work. The value of these sessions is widely determined by those leading and participating in the critique. Help students understand the value in presenting their work, discussing their work, and improving their work based on other's input and how it will play an important role in their professional lives. Emphasize each student's responsibility to the critiquing process. Integrate one-on-one, small-group, and whole-class critiques in order to mimic workplace situations.

Scott Berkum, in his HIVE conference talk entitled "Feedback without Frustration", suggests focusing on these markers for successful critiques:

- "If it's your work, own the critique"
Take responsibility for organizing and receiving valuable feedback.
- "Have a designated facilitator"
Include someone who helps the conversation move toward goals
- "Have critique goals"
Keep project goals at the forefront of evaluation
- "Separate Like/Hate from Good/Bad"
Do not confuse personal tastes for whether a design is successful or not
- "Avoid too many cooks"
Smaller groups (5-6) are more equipped to have focused, singular conversations

5.6.4 Separate assessment for presentation

In order to emphasize the importance of communication skills in the working life of designers, instructors may decide to include a separate assessment that assesses the presentation of students' work and the contribution to the discussion of other students' work in addition to the usual practice of grading the aesthetic success of a design.

5.7 Made-from-Scratch Curriculum

What follows is an example of what a course might be designed if it were focused on teaching the skill of Communication.

5.7.1 Overview of curriculum

Design communication will focus on presenting clear ideas through a variety of mediums, as well as strengthening skills such as listening, managing conflict, and non-verbal communication. Classroom should be transactional and feel safe.

5.7.2 Excerpt Example Lesson

See Appendix E for full Curriculum.

Example:

Week 3: Email/Written Correspondence

Discuss the importance of professional written correspondence and how to successfully write emails in a variety of circumstances. Present good and bad examples.

- **Example exercise:** Send students 3 mock emails, one each from a boss, a coworker, and a client. Students should reply to each in a fitting manner. Stress clarity, tone, and precise use of language.

CHAPTER 6. SKILL 5: INDUSTRIOUS/PRODUCTIVE

6.1 Skill Personified

Elon Musk, self-made billionaire, is not done working. The world is not yet the ways he wants it. “If something is important enough, even if the odds are against you, you should still do it,” he states. Musk is an expert at driving himself and others to work hard at solving some of society’s most pressing issues. Because of this he has revolutionized electronic commerce (Paypal), reinvented sustainable transportation (Tesla Motors), reimagined renewable energy (SolarCity), and furthered space exploration (SpaceX). As founder and chief architect of Tesla Motors, Musk successfully created an all-electric car that has been awarded *MotorTrend’s* Car of the Year, *Automobile* of the Year, and *Consumer Reports* Best Car Ever Tested (Musk). His team was the first private company to successfully launch and return a spacecraft from orbit as well as to the International Space Station. He is now looking ahead to high speed public transportation and interplanetary travel among other pursuits.

In a 2014 commencement speech Musk recommends “You need to work super hard...it’s simple math: If someone else is working 50 hours and you’re working 100 you’ll get twice as much done in the course of a year than the other company (USC).” That sentiment could be restated to convey that being effectively productive and getting twice as much done in the same 50 hours gives you an advantage as well.

6.2 Definition

Random House Dictionary provides the following definition of the term productivity: “the quality, state, or fact of being able to generate, create, enhance, or bring forth goods and services.” Of note for designers is that productivity is defined using action words that are focused toward achieving a goal. As Michael Janda reminds us, “The design industry is a deadline oriented business (94).”

6.2.1 Important aspects of productivity for use in the design field

- Ability to focus on what is most important
- Ability to set goals and work intelligently toward them
- Ability to meet deadlines and achieve results
- Ability to manage stress in healthy ways
- Ability to use downtime wisely
- Ability to realize and act upon a desire to create
- Ability to be self-reliant, self-motivated

6.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:”. A total of 58 skills were listed, and participants were asked to choose which they perceived to be the top five skills. See Appendix A for complete results.

The term “industrious/productive” was selected by 27.91% of those surveyed. Industrious/productive was the fifth most popular term chosen. Other terms that may potentially fall under the industrious/productive category include: “self-motivated” (12 responses), “proactive” (7 responses), “quick” (3 responses). This family of terms garnered 34 total responses, the second highest topic total.

6.3.1 Most important skill

In a follow-up question, participants were asked to choose the *most important* skill from their selections. Answers that focused on productivity included:

- “You have to be self-motivated because the design process is a mix of emotional and logical thinking; there are many hard to define steps one has to work through. You have to drive the process.”
- “Independent/Proactive. Take what you are not asked to do but you do it anyway. This is one way of growing and you'll always be doing something productive.”

6.3.2 Attributes of best designer

Participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Answers that included the concept of productivity included:

- “Work ethic and time management. It's always a pleasure to work with someone that recognizes that you can't procrastinate at the expense of others time.”

- “Not waiting to solve a problem, but finding problems to solve.”
- “Taking on Responsibility readily, attention to detail, innovative thinking and vision, guts.”
- “They didn't spend unnecessary time or words on their work. They sold their ideas, and then got down to executing them, instead of resting on the laurels of their thought process.”
- “...Professionalism and productivity. Great designers are often fast designers.”
- “Tenacity. Speed. She's somewhat of a work horse.”
- “They take into account what is requested in a project initiation, solve for the problems provided and give a little more than was expected.”

6.3.3 Personal success

Participants were asked to “identify a characteristic or skill that has played a major role in their personal success as a designer.” Answers that included the concept of productivity included:

- “Taking on responsibility, well organized...”
- “Organization. The ability to handle the details of multiple jobs at one time.”
- “Grit, determination, industriousness, drive...”
- “Organizational ability, willingness and ability to manage others, and the ability to lead large projects.”

6.3.4 Advice for design students

Participants were asked to give advice for design students. Answers that included the concept of productivity included:

- “Don't wait for someone else to fix something or start something, do it yourself and be a hero. Read broadly, observe closely, self-educate. Your understanding of design is a lifelong undertaking.”
- “Get out there and get experience on the job.”
- “Get as much and as varied "real life" work experience as possible.”

6.4 The Importance of Productivity

Designers, almost innately, possess a desire to create. However, often, due to lack of productivity skills, they are left feeling unaccomplished, stressed, or as if they consistently fall short of goals (Sullivan). Learning to be productive in healthy ways will nurture creativity and allow designers to flourish.

6.4.1 Deadlines fast approaching

Projects have deadlines. Often, the workflow of a designer includes multiple projects in various stages of development with various timelines for completion. This particular type of working environment requires organizational and planning skills, self-motivation, proactivity, and the ability to work quickly. While in school, just as on the job, many of these skills must be learned, but rarely are they taught. Often, students must learn these skills during the assignment. It would greatly benefit students to equip them with the ability to handle stress in healthy ways, to proactively organize and attack their work, and to manage time wisely (Allen).

6.4.2 Sweet and spicy

Other key skills, such as creativity and adaptability, are enhanced when coupled with productivity. Likewise, productivity is best when coupled with the other key skills. They strengthen each other, as seen in the inventiveness and industriousness of Elon Musk.

When survey participants were asked to write about the best designer they had ever worked with, often the answers contained “productive” alongside of their other, more philosophical traits and overarching attributes. (Responses available in section 6.3.2)

6.5 Teaching Productivity

Productivity consultant David Allen, suggests practicing these habits in order to become more productive, in his book *Ready for Anything: 52 Productivity Principles for Getting Things Done*:

- “Clear your head for creativity (1)”.
Encourage students to write down all obligations and projects; categorize and prioritize them; in order to allow their minds to work on what’s at hand rather than be bogged down with what is to come. Students should know their commitments in order to effectively and wisely take on or turn down new responsibilities (9). Students should be masters of their work, not slaves to it (38). “The goal is to get projects and situations off your mind, but not to lose any potentially useful ideas” (Allen, 54)
- “Focus productively”
High performance comes when students are able to have only one thing on their mind, completely available to the project at hand. When students seem to be getting off task, have them stop and review their overall plans and goals for a project. Encourage them to know what it is they want before they spin their wheels going elsewhere.

- “Create structures that work”
Allen sees himself as two beings, “the Visionary” and “the Doer”. Students will often be visionaries in the beginning stages of projects, but must also consciously switch to their inner doer, asking “what’s the next action.”
- “Relax and get in motion”
Allen warns against spending too much time on organizing a perfect system, and instead make your ultimate goal to get things done. Allow time to breath out, relax, and refocus throughout a workflow. Continue to check off action steps, one by one, and soon “small things, done consistently, create major impact.”

6.6 Including Productivity in Current Curriculum

6.6.1 Organize

Use existing projects as opportunities to imbue organizational skills. Have students list action steps to achieve their project goals, create workflow charts, or organize ideas in lightboxes, moodboards, or journals. Encourage them to track and detail their time spent on mock timecards for review and insight.

6.6.2 Clear heads produce clear thought

Begin class time by having students record and organize all of their outstanding duties, thoughts, and anything else competing for their attention and focus. Next, have them put those away, and reserve the rest of the class period for focusing fully on the task at hand, devoting themselves to being present and undistracted.

6.6.3 Downtime

Take note of how students approach and use their downtime while in class. Discuss options for improving the use of this time, and how using downtime effectively can impact a designer’s career in positive ways. Repeat this process periodically to gauge improvement and understanding.

6.7 Made-from-Scratch Curriculum

What follows is an example of what a course might look like if it were designed around teaching the skill of Productivity.

6.7.1 Overview of curriculum

This example course, focusing on productivity and how it relates to the design field, seeks to better equip students to meet deadlines, deal with stress in healthy ways, and increase their creative output.

6.7.2 Excerpt Example Lessons

See Appendix F for full Curriculum.

- **Unit 1: Work Smarter I**
Have students self-teach by requiring them to seek out and understand a method that designers could implement to be more productive. (i.e. batch actions in Photoshop, helpful shortcuts in software, phone app that creates color palettes)
- **Unit 2: Work Smarter Presentations**
Students present their tips and tricks to the class with hands on demonstrations when applicable.
- **Unit 3: Action Steps**
Emphasize the importance of approaching projects with a plan. Set goals and record action steps.

Example exercise: Provide students with a mock project. Have them create a list of action steps they would need to achieve successful completion of the project. Repeat.

CHAPTER 7. SKILL 6: CURIOSITY

7.1 Skill Personified

Leonardo DaVinci, the great artist and engineer, believed in the practice and power of focused observation. He states: “I roamed the countryside searching for answers to things I did not understand. Why shells existed on the tops of mountains along with the imprints of coral and plants and seaweed usually found in the sea. Why the thunder lasts a longer time than that which causes it, and why immediately on its creation the lightning becomes visible to the eye while thunder requires time to travel. How the various circles of water form around the spot which has been struck by a stone, and why a bird sustains itself in the air. These questions and other strange phenomena engage my thought throughout my life (Gelb).” Da Vinci has become the definition of the term “renaissance man” with his groundbreaking contributions in multiple fields still felt today. It is no small coincidence that he deliberately practiced the art of curiosity and that modern design students would be well-served to do the same.

7.2 Definition

Random House Dictionary defines the word curiosity as “an eager desire to know; inquisitiveness.” Specifically for designers this term encompasses the notion that all ideas are born somewhere and that approaching the world in an inquisitive, interested manner begets idea and concept generation.

7.2.1 Important aspects of curiosity for use in the design field

- Ability to ask meaningful questions
- Ability to observe
- Ability to utilize ‘Heads up design’ as well as ‘Heads down design’ (Linkner 64)
- Ability to turn insights gained from discoveries into design solutions

7.3 Survey Results

Design professionals and instructors who participated in the survey were asked: “In order for a designer to have a long and successful career, they need to be:”. A total of 58 skills were listed, and participants were asked to choose those perceived to be the top five skills. (See Appendix A for complete results)

The term “curious” was selected as a top five skill by 25.58% of participants. Curious was the seventh most popular term chosen. Other terms that may potentially fall under the curious category include: “perceptive” (10 responses), “insightful” (8 responses). This group of terms garnered 29 total responses.

7.3.1 Most important skill

In a follow-up question, participants were asked to choose the *most important* skill from their selections. Answers that focused on curiosity included:

- “Curiosity. Without curiosity there is no design.
- “Curious. Asking: 1. Why, 2. How and define 3. Because. Then ask: What is to be gained? Then ask “Why?” again while knowing what is to be gained.”
- “Curiosity. A designer's biggest job is to communicate across people and disciplines. Everything else flows from curiosity, giving a person the drive to hone their skills and interface with others.”
- “Curiosity, because it constantly propels you toward finding answers to new questions, solving problems, etc.”

7.3.2 Attributes of best designers

Participants were asked to “think of the best designer they have worked with, what is it that made them stand out?” Answers that included the concept of curiosity included:

- “She was curious, had grit, and kept going until the project met her expectations.”

7.3.3 Personal success

Participants were asked to “identify any characteristic or skill that has played a major role in their personal success as a designer.” Answers that included the concept of curiosity included:

- “Curiosity”
- “Grit, determination, industriousness, drive, and curiosity.”

7.3.4 Advice for design students

Participants were asked to give advice to design students. Answers that included the concept of curiosity included:

- “The more interdisciplinary your education, the better. Especially in design... all things relate and are influenced by design. Taking a step outside the design studio and connecting with other disciplines gives you a more specific or holistic perspective on your role as a designer.”
- “Take as much in as you can”
- “Read broadly, observe closely, self-educate. Your understanding of design is a lifelong undertaking.”
- “Be Curious. And Honest.”
- “Never stop observing until there's not a millimeter of ink that escaped your eye and brain...”
- “Talk about your work and others' as much as possible. Always try to get to the root of what's working and what isn't.”
- “Study more than design. We draw from many disciplines to solve communication challenges. The more you know the more tools you have to draw on.”
- “Keep learning once you leave school. The design field has changed radically since I started in it, and new interests and sub-disciplines will continue to become available if you remain open to them.”

7.4 The Importance of Curiosity

7.4.1 The catalyst for creativity

Curious people see the world as an opportunity to explore. Much like children, who naturally ask ‘Why?’ and ‘How?’, designers should keep their eyes and ears open for inspiration, new challenges and opportunities to understand. Ken Robinson asserts, “Creative cultures are inquiring (239).” Advertising giant Leo Burnett proclaims, “Curiosity about life in all of its aspects, I think, is still the secret of great creative people.”

Albert Einstein affirms this, having once stated “I have no special talents. I am only passionately curious (Einstein 1952).” He reiterates this concept, “The important thing is not to stop questioning. Curiosity has its own reason for existence. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery each day. Never lose a holy curiosity. (Einstein 1955)”

Finally, Michael Bierut, partner with design firm Pentagram, warns, “Until educators find a way to expose their students to a meaningful range of culture, graduates will continue to speak in languages that only their classmates understand. And designers, more and more, will end up talking to themselves (17).”

7.4.2 Questioning and observing

The ability to ask quality questions is as important to a designer as the ability to provide quality answers. Questions bring insight, new perspectives, spawn further investigation, create connections, possibilities and new directions (Dyer 65-88; Robinson 162). In his book *Little Bets*, Peter Sims finds that many of today’s most famous creative people—among them successful comedians, technology leaders, and retail giants—have gained much of their insight and discoveries through small inquiries as a result of being curious. Creativity is not often achieved in large-scale, whole-cloth discoveries, but small questions and experiments (4).

A second skill that many innovative thinkers have in common is their propensity for observation. They keep an active eye on the world. From this, observers develop new insight, understanding, and creative sparks (Dyer 89-110). One survey participant suggests students become “Obsessive Observers”. Josh Linkner, in the book *Disciplined Dreaming*, refers to this concept as encouraging “heads up” design before students begin the “heads down” design. This means that before introspective concentration on the work begins, one must observe the world for inspiration and understanding (64).

7.4.3 Know-it-alls

Madison Avenue adman Carl Ally adds, “The creative person wants to be a know-it-all. He wants to know about all kinds of things: ancient history, nineteenth century mathematics, current manufacturing techniques, flower arranging, and hog futures. Because he never knows when these ideas might come together to form a new idea. It may happen six minutes later or six months or six years down the road. But he has faith that it will happen.” (Oech 6) Encourage students to be well versed in a wide variety of subjects.

7.5 Teaching Curiosity

Studies have shown that when a student's curiosity is peaked, they learn better, retain memories better, and even learn and retain information about auxiliary subjects surrounding the main focus better. Curiosity changes the brain's chemistry and improves learning (Singh). To harness this power inside the design classroom can benefit both students and instructors.

Education Journalist Caralee Adams suggests these steps for facilitating and fostering curiosity inside of a classroom:

- "Cue into the students' interests"
Focus on students' inherent interests and making connections rather than on strict rules and obedience.
- "Satisfy that feeling of competence."
Allow students to learn more about a subject they are interested in and develop competence rather than just point out facts and move on.
- "Accept the negative and uncertain."
Encourage students to become more comfortable in the tension of uncharted territory.
- "Find the unfamiliar in the familiar."
Look for new and novel discoveries in things assumed fully understood.
- "Remember that things change."
Allow room for gray thoughts and ideas rather than black and white answers.

7.6 Including Curiosity in Current Curriculum

7.6.1 21 Questions

Having students focus on asking thoughtful questions is easily incorporated when projects are given, critiques are given, or projects are completed. Example: Students write 10 questions centering on the project topic. Option: Students write 3 more questions centering on each of their first 10 questions.

7.6.2 Instagram

Once a project is given, require students to upload a number of images to the class's Instagram or photo sharing site. These images should be things they observe throughout their day and are inspired by the aesthetics, concepts, words, etc. This will begin to train designers to be more attentive and curious.

7.6.3 Inquisitive Critiques

During a classroom critique, rather than have students make statements about other's projects, have them only ask questions. Encourage and reward good lines of questioning.

7.7 Made-from-Scratch Curriculum

7.7.1 Overview

Curiosity is a catalyst for creativity. As such, this course is divided into 3 week blocks. Week 1 will center on discovery and questioning. Week 2 will focus on encouraging association and developing new questions through class discussion and sharing. Week 3 will focus on a creative project centered on the topic previously studied.

7.7.2 Excerpt from Example Lessons

See Appendix G for full Curriculum.

Weeks 7-9: Example Topic: Weather

- **Week 7: Discovery Week**
Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of Weather.
- **Week 8: Discussion Week**
Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Imagine a new type of weather and its effects on the Earth.

- **Week 9: Associating Week**
Students present ideas to class.

CHAPTER 8. CONCLUSION

The six skills presented in this paper are not the definitive list of what will create future-proof design students. They are, however, an important and worthy starting point accomplishing this goal. Survey participants, many of whom have had long and successful careers as designers, largely agreed on key traits. Furthermore, current research and writings reinforce the importance and practicality of these skills.

Creativity is central to the purpose and requirements of a designer. Collaboration will forever be an important aspect of workplaces and projects. Adaptability enables designers to evolve along with their profession. Communication skills will be needed for understanding others. Productivity creates valuable designers who contribute throughout their careers. Curiosity sparks creativity, and a richer worldview.

Educators must take the long-view as they nurture students' innate abilities and foster new talents and insights. Students must agree to look up and out as they prepare for careers in design. Classrooms must be creative laboratories, collaborative arenas, and productive workshops. The value of a design degree should continue to grow and flourish long after students leave the safe confines of classrooms and enter an ever-evolving workforce. The value of a designer who is rightfully equipped should continue to grow and flourish as they put their creativity, collaboration, adaptability, communication, productivity, and curiosity to good use.

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APPENDICES

Appendix A Survey (N=43)

Cover Letter:

Dear Design Professionals and Instructors,

I am conducting a survey that aims to identify key characteristics and skills that prepare designers for success throughout their careers. As a successful, working designer you possess valuable insights that can help guide this research project. You have been chosen as an established designer or design instructor to participate in this study. I ask your help in completing this questionnaire.

The following 10 question survey should take about 15 minutes to complete:
<http://www.surveymonkey.com/s/L7C78HL>

I hope that you will choose to participate in this study. A high return rate is needed to assure that our data are representative.

Please Note: Your participation in this project is completely voluntary. If you agree to participate, you may choose not to answer any given questions, and you may withdraw your consent and discontinue your participation at any time. Your informed consent is implied upon completion and return of the questionnaire. Responses to this survey are meant to be anonymous and all information will be used anonymously. In this project, there are no known economic, legal, physical, psychological, or social risks to participants in either immediate or long-range outcomes. The distribution of the questionnaires has been approved by the Purdue University Institutional Review Board for the Protection of Human Subjects. If you have concerns about treatment of research participants, you can contact the Committee on the Use of Human Subjects at Purdue University, 610 Purdue Mall, Hovde Hall, Room 300, West Lafayette, IN 47907-2040. The email address is irb@purdue.edu.

I appreciate your time and expertise,

Joshua Lowe
MFA Candidate
Purdue University
jmlowe@purdue.edu

Opening Paragraph:

This survey is meant for professionals in a design-related field. Results will be used to inform and guide a research project which aims to identify key characteristics and skills that prepare designers for success throughout their career.

Thank you for your willingness to share your insights and wisdom with this research project. Your valuable time and energy is appreciated.

Please note: All information will be used anonymously unless special permission is granted.

Question 1: About You:

Answers: (n=43)

Table A.1 Gender

GENDER:	
44.2%	Male
53.5%	Female
2.3%	N/A

Table A.2 Experience

EXPERIENCE:	
9%	1-9yrs
39.4%	10-19yrs
27.2%	20-29yrs
24.2%	30+yrs

Table A.3 Vocation

VOCATION:	
78.8%	Professional
21.2%	Instructor

Table A.4 Highest Degree

HIGHEST DEGREE:	
65%	Bachelors
32.5%	MFA
2%	PhD

Table A.5 In What Discipline

IN WHAT DISCIPLINE:	
60.4%	Graphic Design
14%	Fine Art
2%	Textiles
2%	Electronic Time Based Art
2%	Computer Graphics Technology
2%	Journalism
2%	Architecture
2%	Telecommunications
2%	Advertising
2%	N/A

**Question 2: In order for a designer to have a long and successful career, they need to be:
(Choose top 5)**

Answers: (n=43)

Table A.6 Top Five Skills

Creative	60.47% : 26
Collaborative	48.84% : 21
Adaptable/Flexible	41.86% : 18
Well-spoken/Communicative	41.86% : 18
Industrious/Productive	27.91% : 12
Self-motivated	27.91% : 12
Curious	25.58% : 11
Perceptive	23.26% : 10
Critical	20.93% : 9
Skilled	20.93% : 9
Professional	20.93% : 9
Open Minded	20.93% : 9
Knowledgeable	20.93% : 9
Insightful	18.60% : 8
Imaginative/Clever	18.60% : 8
Confident	16.28% : 7
Resilient	16.28% : 7
Proactive	16.28% : 7
Consistent	13.95% : 6
Enthusiastic	13.95% : 6
Patient	13.95% : 6
Innovative	11.63% : 5
Trustworthy	11.63% : 5
Responsible	11.63% : 5
Organized	11.63% : 5
Focused	11.63% : 5
Independent	9.30% : 4
Thoughtful	6.98% : 3
Technological	6.98% : 3
Pleasant	6.98% : 3
Quick	6.98% : 3
Logical	6.98% : 3
Ambitious	6.98% : 3
Persuasive	6.98% : 3
Diplomatic	6.98% : 3

Helpful	6.98% : 3
Results-driven	6.98% : 3
A Craftsman	6.98% : 3
Entrepreneurial	4.65% : 2
Genuine	4.65% : 2
Personable	4.65% : 2
Practical	4.65% : 2
Particular	4.65% : 2
Facilitating	4.65% : 2
A Leader	4.65% : 2
Easy going	4.65% : 2
Balanced	4.65% : 2
Self-reliant	4.65% : 2
Sincere	4.65% : 2
Cooperative	4.65% : 2
Competitive	2.33% : 1
Humorous	2.33% : 1
Modest	2.33% : 1
An Initiator	2.33% : 1
Positive/Cheerful	2.33% : 1
Total Respondents: 43	

Question 3: Which of these traits is most important and why?

Answers: (n=41)

- Creative. It's all about coming up with or contributing to the "big idea" And recognizing it when you see it.
- Enthusiastic-especially important for a long career. I think other traits are from this quality...
- I believe 'personable'. We constantly have to work with others and it's only fair to be respectful, easy to get along with, and all-around kind.
- Adaptability and flexibility, design is constantly changing and they need to be able to keep up with trends
- Creative, without creativity it is VERY hard to do a creative professional.
- Adaptable: the field is constantly changing.
- Collaborative because in design it requires you work with others (clients, copy writers, other designers, developers, bosses, etc) and you have to know how to use that to your benefit
- Creativity. It's hard to stand out from all the same things being made.
- Independent and entrepreneurial. If you want to work for a company and sit at a desk ok. But many highly successful designers today are seeking work and making it happen in design and social entrepreneurial ways.
- Creative Without this the rest doesn't make sense.
- Collaborative, creative, innovative, critical thinker. Skilled, self-motivated and focused on the end result. Keeping up with technology.
- I would say critical. Design is a form of critical reasoning, the heart of which involves understanding of context.
- Innovative: great design is problem solving at it's best and you can't make anything great without thinking about what else is possible
- You have to be self-motivated because the design process is a mix of emotional and logical thinking, there are many hard to define steps one has to work through. You have to drive the process.
- Perceptive. Because clients generally don't really know what they need or want. It's our job to lead the way.
- Perhaps self-reliance, because in being self-reliant, you count on yourself to supply the necessary traits missing from your practice. If not that, then curiosity, because it constantly propels you toward finding answers to new questions, solving problems, etc.
- Adaptable/Flexible. Working with others required a level of flexibility in all things. Schedules move. Projects evolve. And our professional landscape is also quickly changing. What I started out doing when I graduated from school is quite different then what I am doing day to day now.
- Creative because we are paid to think/dream of things that others would not have.
- Collaborative. No project is an island. The more successful the collaboration, the more successful the project.
- creative
- Curious. Asking: 1. Why, 2. How and define 3. Because. Then ask: What is to be gained? The ask again Why knowing what is to be gained.
- Curiosity. Without curiosity there is no design.
- Critical. I believe the key to be a good designer lies in be a critical observer, is really easy for new designers to keep themselves happy with a first draft that comes out of their hands, whereas professional ones, will tweak the most minimal details that will enhance the overall... every little thing matters, closing one blue vs a slightly darker one, increasing or decreasing types half of a point, proportions, scales, etc. And also, being a critical observer helps you see the things related to your field in a deeper way, and to translate those things into design.
- It's impossible to say anyone is more important.
- Creative. Is not talented then nothing else matters.
- Collaborative. That's central to every project.
- Adaptable/Flexible because in a long career, you'll experience so many changes in the world and the work environment. Changes that you couldn't foresee and you need to adapt to them and move on.
- Creative. Each project will have its own set of challenges. You will be responsible to find a new "right" solution with every job.
- Independent/Proactive is what you are not asked to do but you do it anyway. This is one way of growing and you'll always be doing something productive
- Adaptable/Flexible. We are in the information age and technology changes daily as we basically live in Beta mode.

- Adaptable. You might get a new boss who thinks differently than your old boss. Technology is always changing. The market is always changing. An idea you love might get rejected. But if you are adaptable, you can recycle it into something that gets the thumbs up.
- Curiosity. A designer's biggest job is to communicate across people and disciplines. Everything else flows from curiosity, giving a person the drive to hone their skills and interface with others.
- Creative. All success as a designer comes from this. Otherwise you are merely a craftsman, which is important but not unique.
- Adaptable/Flexible
- Collaboration is very important. It allows different perspectives to be seen and can help iron out potential flaws. Also, in a creative environment, collaboration generally leads to a higher output of ideas and a higher probability of arriving at a better solution.
- Creative - because that's where you present your real value. That's what people hire you for.
- Collaborative. No matter how good a designer you are, if you can't work with people you won't go far.
- Resiliency is a key trait for success in any long-term career, because uncertainty in life, aka Change, is the rule, not the exception.
- Positivity and enthusiasm are vital to building relationships between clients and members of a team, and your own survival.
- Critical, to have a good eye on why work is good or bad. Or what you can do to solve a problem is important to success
- Adaptable. If we're talking about the future of design, they better be ready to roll with the punches.

Question 4: Are there any traits or skills you would like to add to the list?

Answers: (n=26)

- Thick-skinned. You have to be able to shake off rejection and press on for the next big idea. There is more than one out there. It's hard when your client doesn't see things the way you do, but once you've given them your creative rationale -- if they still are not in agreement, shake it off and move on.
- I might suggest 'global thinker', 'worldly', 'culturally sensitive'...etc. Especially given the diversity of our communities and our society at large. This is particularly important for designers who have the advantage of using the visual as a universal language to communicate across many cultural groups.
- Resourceful, There are a lot of resources that save time and create a better end product if they are utilized.
- Resilient
- Empathetic or socially driven
- Proactive, responsive, understanding, multi-tasking/handling multiple projects/deadlines at a time.
- It's a great list, very difficult to choose just five attributes!
- problem-solver, communicator
- Sincere, responsible, innovative, open minded, personable, enthusiastic, adaptable
- Talented?
- Detailed Oriented
- Thick-skinned. Clients and others will disagree with your judgment. If disagreements become personal, no design progress can be made.
- Passion, Honesty, Understanding with Empathy and Humility. And of course Integrity with a little Spirit thrown in. Oh, and lots of Business sense.
- Five traits are too few. You should let people tick the ones they care about, and then run the statistics to find the top 5. See what words load together in factor analysis, etc.
- If critical, wasn't related to observer in first place... then being an "obsessive observer"
- generous, wise, a good listener
- Natural talent. Can not be taught,
- No. I just wish I could have selected more than 5. This was a pretty comprehensive list of traits.
- Good listening skills, talented
- Responsible
- Understanding.
- Self-learner
- Passionate. Being passionate in this profession is the key to producing great work that communicates effectively and is still unexpected. This business is time consuming and depending on the project can require late nights and giving up weekends. Loving what you do (along with coffee and vacationing) is crucial to not burning out and an overall successful future.
- Empathy and adaptability
- Being an excellent listener.
- Self-aware. Figuring out what you are good at and like to do is not as easy as it sounds.

Question 5: In your opinion, how prepared are today's designers when they first enter the workforce?

Answers: (n=42)

Table A.7 How Prepared Are Today's Designers When They First Enter the Workforce?

Not at all:	02%
Not Very:	22%
Somewhat:	65%
Very:	11%
Completely:	00%

Follow-up Question: What General Deficiencies do they Most Often Exhibit?

Answers: (n=41)

- just everyday on the job stuff that comes with experience. usually confidence if they are in front of the client.
- Skills needed for 'real field work'
- The reality of budgeting is an awakening truth. This has a huge effect on the execution of your ideas.
- Flexibility and open-mindedness
- From my experience, general design skills and aesthetics.
- it depends where they come from.
- systems thinking and attention to detail
- Lack of basic design knowledge like composition and why one design may work better than another. Also they lack any artistic ability.
- Diversity of experience and knowledge
- There seems to be a bit of self importance. Lack of honor and respect?
- Critical thinking, layout/compositional space, organizational skills, priority setting, multi-tasking
- Critical reasoning and broad curiosity about the world.
- they lack time management skills and "real-world" skills like client management skills, ethics training, pre-press skills
- Defining the work process, developing a design concept.
- Young designers that I have meet are of two extremes. They either are very creative and but lack the knowledge to produce the work well or they only have technical skills and are lacking in creative problem solving.
- A lack of process and critical thinking. The inability to look at their own work from a distance and accept criticism as being collaborative and helpful, rather than a personal attack on their creativity and talent. They often don't immediately grasp where their work fits in the marketplace, and that they don't, perhaps, merit senior positions immediately upon graduation.
- Lack of pre-press knowledge; properly setting up files for the printer. Or, significantly lacking design conceptualization/rationale behind designs. Why did you do what you did?
- Varies from school to school, and professor to professor.
- Most often, young designers (and interns) think they are going to step right into large projects (like they've been working on at school) and be able to create a solution overnight, with little to no client input or feedback. They don't always have the best command of their tools (programs) and don't realize that it's perfectly normal to be a production designer or junior designer that is mostly resizing ads and working as part of a larger team to carry out someone else's concepts.
- Speed of concept to completion.
- Designers are not often taught to work as a team along with photographers, writers, client managers, etc. They typically learn this on the job.
- Your question should be an opinion then ask if one agrees or disagrees. Too open-ended. Simply, young designers have not experienced enough day-to-day life in which to draw upon. Design is easy and thinking of what to design with is hard.
- Depends on degree. I teach undergrads and grads. Some are immature babies more focused greek life than design. Others are thoughtful, incredible human beings. So it depends. I see the extremes of design talent. However, given the

brand recognition of my institution they all go on to get jobs. My hope is that the ones that haven't matured during their training will learn on the job.

- I'm not a fan of critiquing "just-graduated" designers, they come with a bag of tools, with a bag of confusion and with a bag of pre-conceived ideas of what design is. But as they move through life, they start learning how things go, I would say that university can't teach you that. If there's something that I fell can be better taught is that lesson of being "obsessive observers". I remember that one of my first assignments in my undergrad was to sketch like 250 times an egg. Yes, an egg. And we had like a week for that task. As summary, they happen to content themselves with the first idea that comes to their minds.
- lack of compassion
- Perhaps they are not the best.
- Comparative analysis. Presentation strategy. Production experience. Negotiating skills.
- Sometimes 'color'. A lot of schools seem to have dropped the study of color in order to make room for some of the software needed. It really weakens their work overall if they don't have a good foundation in color.
- over-confidence, inability to listen
- Experience.
- Production skills
- Inability to talk about the decisions they make in their craft.
- Very few programs explain the collaborative nature of work with clients and other team members. The ability to communicate well, to take in criticism and be open to other ideas is vital.
- A lack of real world experience, especially experience working in collaborative, multi-disciplinary environments.
- I'd say that young designers enter the field with this perception that being a designer is primarily about making something 'look cool.' Based off of my experience with peer portfolio reviews, when asked 'WHY' they made a certain design decision they answer primarily with, 'It looked good.' Knowing why a piece works/doesn't work and whether or not it effectively communicates a brands voice is important. This is all circumstantial of course.
- Lack of experience working in a corporate environment. Inter-personal skills. Learning how to navigate conversations and present their work. Understanding of how to integrate business strategy into design.
- Sense of urgency, listening skills, research skills
- In my opinion, any new project should first be investigated on paper, not on a computer.
- Your first job out of school often determines the direction of your career more than you might expect, and nobody in school clearly and thoughtfully explains the difference between the paths available.
- slowing down and listening
- Communication, Professionalism

Question 6: Think of the best designer you've worked with. What is it that makes them stand out?

Answers: (n=42)

- great work. A new way of looking at something.
- From my experiences...Good designers had good insight so they could educate others..
- They live for design. They can transform any concept or idea and breath life into it. Most often, it is the re-thinking of the simplest idea, object, or concept. Also, their personality! They own it and they stick with it.
- She was very open to ideas and could work with them to make the client happy
- Work ethic and time management. It's always a pleasure to work with someone that recognizes that you can't procrastinate at the expense of others time.
- Innovative, risk-taking attitude towards design.
- not waiting to solve a problem, but finding problems to solve
- Creative and open to collaboration
- Their drive to make great work and create non design design projects such as photo work or public arts collaborative projects.
- Open and creative along with informed
- Constantly learning, bettering themselves. Challenging themselves, knowing the latest trends. Pushing the envelope.
- I am a cosseted academic, I haven't worked with fellow designers in a professional context.
- true collaborative with no ego or personal agenda
- Taking on Responsibility readily, attention to detail, innovative thinking and vision, guts.
- Good ideas presented simply.
- They didn't spend unnecessary time or words on their work. They sold their ideas, and then got down to executing them, instead of resting on the laurels of their thought process.
- Ability to get past the first round of ideas to the second/third/fourth round where the ideas really are creative problem solving.
- They were open-minded and organized. They were motivated to meet deadlines and honest when meeting a deadline wasn't going to be possible. Criticism was always viewed as constructive, and never taken personally.
- Relentless pursuit of perfection.
- Assuming a collaborative nature, then professionalism and productivity. Great designers are often fast designers.
- innovative and results driven
- Passion and their belief in the idea to build into a concept.
- She was curious, had grit, and kept going until the project met her expectations. It was a joy to work with her. Even though she was an undergrad she was team leader on a team with two graduate students.
- I lack the experience of working hand in hand with great designers. But I've studied some, and my favorite designers has a sense of consistency that no one else has displayed that clearly.
- passion, innovative
- willingness to share ideas so they could be improved on.
- They show you completely new way of looking at something.
- Their ability to do research and glean what's great about it without copying it, and then apply that essence to the problem that they're trying to solve.
- consistency
- Their ability to find solutions to the problems that show up. Their creativity
- They are ultra creative while being well-spoken and entrepreneurial!!!! A powerful trifecta.
- Tenacity. Speed. She's somewhat of a work horse.
- Tremendous drive to create, as well as an eye for detail and impeccable, contemporary taste in aesthetics.
- The ability to cut to the essential of the problem/communication to make a complex idea simple and clear.
- Passion for all things: quality of work, quality of collaboration, quality of personal experience, etc.
- His ability to relay an emotional connection with messaging through visual design.
- They are confident, articulate, they leave you with a sense of feeling surprised by their work and their expertise. You feel a sense of real value to what they bring to the conversation.
- Empathy, insight, creativity

- They are inclusive, engaging, turned on by the world, and not threatened by the abilities of their peers. They bring out the best in everyone, and inspire others to do their best work.
- A good sense of humor, a natural affinity for the customer, a serious focus on quality, and a genuine interest in problem solving on their client's behalf.
- they take into account what is requested in a project initiation, solve for the problems provided and give a little more than was expected.
- Full of ideas, good at critical thinking, kept the "big idea" in mind.

Question 7: Can you identify any characteristic or skill that has played a major role in your success as a designer?

Answers: (n=41)

- being able to offer a variety of solutions. And being confident in any of them.
- Analytical skills
- I believe my ability to interact with others has allowed me to contribute but also, to significantly learn from others-- whether they are peers or leaders.
- Flexibility and Creativity
- Adaptability
- ambition
- Willingness to take constructive criticism and work on a solution that makes both me and the client happy.
- Being independent and flexible while still being selective with accepting clients.
- Resilience
- Challenging myself. Patience. Sense of humor. Staying on top of applications/skills/trends.
- Adaptability, willingness to take on new roles and tasks and learn on the job.
- a dedication to quality, big picture thinking
- Taking on responsibility, well organized, adaptable, focused on optimal outcome for the client.
- Never stop learning
- Persistence or tenacity. The willingness to hang on and work through the bad ideas, the bad clients, the bad projects and take what is good from each.
- Organization. The ability to handle the details of multiple jobs at one time.
- I'm helpful. Whenever there's a problem, I don't dwell on it, I move on to finding a solution. And I truly enjoy working with younger designers and facilitating their growth. It's helpful for me and my co-workers to have more really adept designers on staff, and I want to make sure our entire department is ready for whatever task is handed their way.
- Tenacity
- The ability not to be bored by consistency and understanding that the effectiveness of the communication is more important than whether I like it or not.
- creative and responsible
- creativity with understanding of the market and project at hand and how it relates to life in general.
- Grit, determination, industriousness, drive, and curiosity.
- Fight and dream that salaries will be better. A lot of designers I studied with, changed their careers into something else for the matter of an more secure future.
- curiosity
- I am very talented but am willing to listen to any direction that could improve
- Hard work. Craftsmanship.
- Organizational ability, willingness and ability to manage others, and the ability to lead large projects.
- identifying what makes a client unique
- Patience
- Adaptability.
- Once I learned how to work with difficult people without getting upset, the doors were always open for me.
- Personality. There's too much knowledge to take on alone; being easy to talk to enables me to find out what I need from people who know better already.
- Ability to communicate with clients and team members.
- Diversity of experience and ability to tackle new problems and tasks as they arise.
- Passion, Patience, and Program Proficiency.
- Being able to work with multiple personalities. Being able to build trust in relationships.
- Adaptability
- I am resilient, and I expect change.
- Who told you I'm successful? I'm a design generalist: I've worked in studios and in-house, as a freelancer and volunteer; I've worn many hats, as a designer, publisher, editor, researcher, and barista... because I've found many things interesting. The richness of that experience has very naturally led me to where I am now, and I find most all of it useful on a daily basis.

- flexibility and finding solutions that satisfy my desires as a designer and the need of the client
- Easy going: helps me deal well with people in a high stress environment

Question 8: One piece of advice I have for design students is:

Answers: (n=41)

- Don't give up. Don't stop at your first idea. Collaborate -- it might take you in some new directions.
- A good student knows how to teach himself or herself.
- The more interdisciplinary your education, the better. Especially in design... all things relate and are influenced by design. Taking a step outside the design studio and connecting with other disciplines gives you a more specific or holistic perspective on your role as a designer.
- Take as much in as you can
- Practice your skills on more than school projects. Take on internships or small projects outside of the curriculum. 100s of other design students are graduating with the same "school" portfolio projects and you need to make yourself stand out from the others.
- Learn how to learn efficiently.
- Don't be too attached to any one design
- Listen to the client well. Sometimes what they want and need are two totally different things.
- Stay true to yourself. Don't compete, collaborate. Never compare yourself to others. Do what you say. Keep open.
- Never stop challenging yourself / your design style. Continue to develop and grow your skills.
- Read broadly, observe closely, self educate. Your understanding of design is a lifelong undertaking.
- you have to separate yourself from your work, what you personally like and dislike does not matter when your target audience is twice your age, learning about a product you would never purchase; learn to take constructive criticism, and know that some people just always have to give negative feedback whether it's true or not, don't let it get you down
- Use every free time you have to intern and work in the field to gain real life experience.
- Humility is always appreciated, knowing that several people have come before you and thousands will come after you, each talented and skilled in their own way. Bring ideas and vision to the table without ego.
- Get job experience. Do as many internships as you can.
- Love what you do.
- Iterations are a good thing. Usually your first 20 ideas are mediocre and expected. But at the same time, sometimes the simplest solutions are best. You can't always have a custom package with 8 inks and a custom foil stamp. Fancy printing doesn't make up for good design - you shouldn't need it.
- Surround yourself with people who are smarter than you and let them concentrate on what they are good at and let you do the same. Don't try to do all things; do only what you truly excel at.
- There are at least 3 kinds of designers: 1. artist, 2. decorator, 3. communicator. Figure out which designer type you are before someone hires you and tell them up front.
- get real world working experience
- Be Curious. And Honest.
- Care about what you do. Take pride in your work. Find your limits as a designer. Push yourself to do the best work that you can do. Know your weakness and find people to collaborate with. Learn to work with others and do better work on a team than as an individual. Set your ego aside.
- Never stop observing until there's not a millimeter of ink that escaped your eye and brain. And for the sake of god! Grids!
- listen more
- Meet with the client and get them involved in the creative so they feel invested in the end product.
- Get as much and as varied "real life" work experience as possible.
- Make sure to schedule time in your workday and/or workweek to plan; short and long term planning.
- Never stop learning. Be inspired by other designers, mentors, great work...in everything!
- Be open minded
- Get out there and get experience on the job.
- Make a list of places you want to work with and don't stop trying until you get a job at one of those places. Take risks. Don't be afraid to take a job at an awesome place that pays poorly or is only part time. Don't put money first in your job search. Money will eventually come, I promise.
- Talk about your work and others' as much as possible. Always try to get to the root of what's working and what isn't.
- Study more than design. We draw from many disciplines to solve communication challenges. The more you know the more tools you have to draw on.
- Network. Having a great portfolio is important, but having an extensive network will get you more work than a portfolio ever will.

- Find a mentor to show you the difference between 'good' and 'great' work and continue to absorb. Always be willing to learn, fail, and get back up again.
- Be confident, but don't be arrogant. Treat people with respect and learn how to work with different types of people and different types of thinking. Learn how to communicate, articulate and present your work with the goal of delivering a higher value than what you are being asked to deliver. Learn how to set expectations and have boundaries for yourself too. Take breaks, take a walk, always seek out opportunities for personal growth and inspiration. Don't wait for someone else to fix something or start something, do it yourself and be a hero.
- Don't over focus on the tools/software; focus on solving problems
- Being able to use design software is not what makes you a designer. Being able to concept and develop solutions to visual problems is what makes you a designer.
- Keep learning once you leave school. The design field has changed radically since I started in it, and new interests and sub-disciplines will continue to become available if you remain open to them.
- listen
- Look at professional work you love, and produce work at that level. (find ways to do this without the big budget)

Question 9: One piece of advice I have for design instructors is:

Answers: (n=39)

- Try to put aside how you might do something, and embrace a new designer's perspective.
- Instructors are helpers....not teachers.
- Allow students to think cross-disciplinarily and to explore what goes on in the world around that will or should influence their work.
- Don't become stale
- Don't ignore the traditional arts for new technology. Sometimes it's better to digitize traditional artwork into your projects than try to replicate it in the computer.
- Update the curriculum to reflect contemporary design needs.
- Cover the basics of design and make sure the student can do basic art.
- Teach students to be resourceful and patient. The first design isn't always the best. When trying to learn something new (technology) be resourceful.
- Stay up with the trends in communication, it changes daily. Encourage students to take speech and marketing classes along with business classes. to prepare them.
- Place real life situations into the classroom. Multi-tasking on tight deadlines. Budgets. Take the students to a printer - teach them about paper and printing processes, preflighting your files, different costs for types of printing styles: litho, foil, deboss, etc. Get the students into internships/community to gain experience before graduation.
- Nothing specific, perhaps teach to your own strengths and work on your limitations.
- teach students to think about what they are doing when they design, and how to explain it to those who are not visual people or trained in design, marketing, etc.
- Help students become more conscious of their process, help them understand why some results are better than others.
- Anything they can do to convey a practical sense of what the marketplace is like, what full-time employment is like, these days, for people in the creative field would go a long way to establishing good footing for young designers early in their career. Especially, anything that can be done to equip graduates with the tools to fight the bad practices they'll encounter in the workplace and the myriad unhealthy creative processes employers are going to ask of them. How to stand up for good design as well as how to compromise in common situations. Top-tier design graduates probably won't have to face these problems as much as those of us who have been self-taught or matriculated from lesser-known institutions, but I think it's important that designers should know what to say to employers or clients who ask them to do the impossible, or undercut their value or compromise the creative process with concerns over their bottom line and insta-deliverability, e.g., "I need a logo in an hour."
- Practice what you preach to be able to pay your rent. Impart your experience to students because you enjoy in being a part of building the next generation of design leaders.
- Force students to use the programs that they will rely on to make a living - in the most professional way. Students that have graduated with a degree in design that don't know how to use paragraph style have been ripped off. And give students real clients, with strong opinions and silly limitations. Most students are wholly unprepared for working with clients.
- Give real-world type work with strict deadlines/guidance.
- Designers are not often hired to be artists. Clients usually want to hire communicators. A very few lucky designers are hired to be artists. Know the difference.
- be practical and results driven
- Be a good storyteller. And honest and empathetic.
- The field of design is changing rapidly. Train designers for a changing field. Don't get stuck into teaching what you know, keep up with the field, and train designers to know where the cutting edge is. Be humble, what made you successful is also a liability if you rest on your past laurels.
- Cold hearts, at least in the TA level, it seems like we are often to worried about failing students that don't meet the requirements of the class. There is a lot of money in tuitions, materials and time invested by the students, but we are the ones to define if they really know what they are supposed to learn from our courses.
- just be passionate and know what you know and who you are, and who you aren't
- if it doesn'tt work in black and white color is not going to improve it
- Include production skills in your curriculum.
- Vary your class assignments from one year to the year or at least every few years. Some instructors rely on a 'good assingment' for far too many years.

- Introduce your students to examples of great design work throughout history. Good design can inspire us all.
- Challenge students, even when they complain about it.
- Keep doing what you are doing and fight for every dollar and influence for support!
- Force your students to talk about their work with each other.
- Bring in working professionals, expose students to the give and take of the real world they will face.
- Keep the real world in mind. The classroom is a wonderful place where students can fail safely, but the real world is looming.
- Stress the difference between design and intelligent design.
- It's good to be out there and be experimental, push the boundaries in school - but students also need to learn how to do that with corporate clients and in practical applications. Teach branding and design as a strategy.
- Encourage your students to intern
- My worst instructors were those who scoffed at my lack of knowledge. I guess they didn't understand the student/teacher dynamic.
- Don't minimize the importance of production work; if you can't execute on your design concepts — and really make them come alive in whatever format, on press or on screen — your design isn't worth a thing.
- be practical and pragmatic in approach
- Continue to challenge students to express themselves often and well when it comes to their work and other's work.

Question 10: Are there any other thoughts you would like to share?

Answers: (n=22)

- Design is so subjective. You win some, you lose some. But only present what you believe in.
- I wonder if sustainability is relevant to this conversation and how this can also be an immense asset to designers and to society.
- Always try new things even if they are old. Learning to silkscreen or letterpress slows you down and gets your mind to think differently than clicking on a computer.
- Resumes and your portfolio are important. The resume is the first chance you have to show off your design layout skills. Impress the interviewer with the layout of your resume. Customize the portfolio for the applied position.
- your design decisions are driven by your desired results; experiment often but be objective even with your own work
- I think it's increasingly more important, and maybe even more obvious, that the way forward for designers is not to act as middlemen to the creative process. Not to wait for a business owner to have an idea and ask a designer to implement it. Designers are the idea people, and it might be good to teach designers to be practical and self-funded... perhaps more like artists with business degrees... to execute their own ideas more often, and how to turn their ideas into products. It's not suited to everyone, perhaps. But I think it's one of the strongest ways in which designers are going to preserve the integrity of their process over the next few years.
- A designer today needs to be versatile and prolific, in marketing, management, word creation and visual image as well as the ever changing technical knowhow
- Draw! And do things besides design. Your other interests will help you be a better designer.
- Just be passionate and focused on what you are doing and remain humble. Good luck with your budding career. Kevin
- Design can a deep passion, a way to live life. Some students are afraid to let themselves go, and are too busy trying to be cool. Design is a humbling experience just like it can be a high experience. One can experience what it means to be human if s/he explores design deeply. But that isn't the shiny sparkly superficial stuff that often passes as design.
- Research, is becoming very relevant. Design is shifting towards a more responsible and scientific ground. Start implementing research in education.
- the current institution of the university is often the last place where kindness, compassion, creativity, and open mindedness is embraced.
- There are 100 solutions to every design. only panic when you have presented the 87th and it is not accepted.
- I think too often students feel like they're needing to compete with their peers in classes. Some of that needs to happen but the people who are comfortable and willing to collaborate instead are going to be more successful in the long run.
- Identify what you love about design then go out and make money doing it!
- This a great idea. I hope that you succeed in your search for answers.
- Most design jobs are not very glamorous. Just saying.
- Nope.
- Work hard, have fun, and change the world.
- It is a privilege to be a designer. Develop your talents, be a good listener, and trust your instincts. If you find yourself working for a jerk, learn from it and gracefully move on.
- Every designer needs to be able to do three things well, no matter if they're a front-end developer, magazine art director, UX designer, or whatever: you need to be able to design it; you need to be able to produce it; and you need to be able to talk about it. The creativity is necessary, but far from the whole job.
- Think of and shoot for the stars and the moon and make plans on how to get there. You will have stumbling blocks along the way. and that's a good thing. They will shape you.

Appendix B Creativity Class Curriculum

Creative Thought I

Weekly Lesson Plan

Supplies:

- Each student will need a 12x18 Hardcover Sketchbook. Any ideas generated must be recorded and left in this book.
- Students will need access to a digital camera. (Cell phone will work fine)

Classroom Ideals:

- Even bad ideas are worth getting out on paper, because they might lead to a good idea.
- You will not be knocked for trying.
- We are not looking at your drawing ability or computer skills, we are looking at your thinking ability. Your ability to generate quality ideas.

Schedule: Meets once a week for 3 hours in a large studio room.

Notes:

By keeping outside-classroom work to a minimum, we allow students to spend their extra time on other classes' projects: applying what they have learned about brainstorming and the idea phase. Students will be asked to bring ideas or thumbnails to class with them, but not large scale finished projects.

Week 1: Junk Pile

Brief Description: Students arrive to a pile of miscellaneous objects set in the middle of the studio. After being broken up into teams, they will be asked to create a sculpture from the objects. Every 20 minutes (after taking digital photos of the sculptures), they will be asked to return everything to the pile and start afresh.

Homework: For next class- Bring 3 sketches of new sculptures using the same objects we had in the classroom.

Assessment: Contribution to team. Ability and willingness to create a variety of sculptures.

Week 2: Circle, Square, Triangle

Brief Description: An 8" Circle (semi-permanent) is applied to the center of the white board. In successive order, students walk up to the white board and turn the circle into some object (a planet, a snowman, an engagement ring). If a student becomes stumped, they are eliminated. This continues until the class is over or we have a winner. If circle game finished, we change the shape to a square or triangle.

Homework: Everyone who makes it until the end of class has no homework. Those who didn't need to come up with 2 more sketches of new ideas.

Assessment: Ability to contribute and think broadly during game.

Week 3: Name Game

Brief Description: We will play a variety of songs that the students are not necessarily familiar with. They will be asked to come up with 5 song titles for each. Class will vote on winners. Other naming exercises such as Naming the Band, Name the book/movie/poem (after reading a synopsis), name the company (after telling them about it).

Homework: Write 5 Book Titles for a biography about your mother and write them in your sketchbook. Circle the your favorite.

Assessment: Ability to come up with ideas and to then explain them to others.

Week 4: Prop Game

Brief Description: Much like the prop game on “Who’s Line is it Anyway”, a box of miscellaneous props will be set up. 2 Small teams will go up to the front and pick a prop out of the box. They will then take turns acting out “scenes” involving the prop. (a stick could be a sword, or a pool stick, or a golf club, ect.)

Homework: Write one scene (funny, scary, sad...) that centers around one of the props we used today.

Assessment: Willingness to play a part in the game. Ability to think creatively about generic objects.

Week 5: Gorilla Marketing

Brief Description: Successful Gorilla Marketing campaigns done by companies will be presented to the class. Students will then be given a series of company types (office products, sporting goods, insurance, ect.) and will be asked to come up with gorilla marketing ideas for them.

Homework: Sketch and write an idea for marketing a local Seafood Restaurant. We will present these ideas to the class during our next meeting.

Assessment: Willingness to contribute. Quality of thinking. Class will choose which homework idea to move forward with.

Week 6: Caption Contest

Brief Description: A series of random photos will be projected in front of the class. Students will write 5 captions for each in their sketchbooks. They will read their top 2 to the class. Students might be asked to make it funny, or serious, or scary, ect. Class will vote on winners.

Homework: Write five captions for your facebook profile photo. Bring to class and we’ll share.

Assessment: Willingness to contribute. Quality of thinking. Diversity shown in sketchbook.

Week 7: Fort Building

Brief Description: Cushions, chairs, sheets, easels, ect. Will be available in the room. Students will be asked to build a fort. Every 20 minutes, they will tear down the fort and start fresh on a completely different layout. Project managers will assigned.

Homework: Build a fort in your dorm room or apartment, photograph it, and add it to the class flickr page.

Assessment: Classtime- Willingness to contribute. Ability to lead and follow.
Homework- Effort spent, presentation skills.

Week 8: Bent Objects

Brief Description: Present class with bent objects: <http://bentobjects.blogspot.com/>

Spend rest of class giving them themes (example: heartbreak) or objects (example: grape), and asking them to sketch ideas for bent objects of their own.

Homework: Sketch 3 more ideas using objects in your room. Photograph your best idea and upload to class flickr with title.

Assessment: Creativity of work, diversity of ideas. Sketchbook and final photo will be graded. (Is the idea good enough to be added to the Bent Objects blog?)

Week 9: Coaching

Brief Description: A sheet of paper will be given to students having the outlines of basketball courts/ football fields/ soccer fields on it. I will give them an example of a play using x’s and o’s. They will then have time to fill in the sheet with “plays”. They will present their favorite on the whiteboard to the class. We will also act these out with students and balls in the studio.

Homework: Create 5 plays for your favorite sport. Add these to sketchbook.

Assessment: Creativity of work, ability to communicate your ideas, willingness to participate, sketchbook quality.

Week 10: Rolling the Dice

Brief Description: Students are given dice to play with. They will be asked to divide into small groups and make up a game using the dice. Rule Sheets and demonstration will follow. Class will then play the games, and every now and then they will be asked to add a new rule. (games should not be something they have played before)

Homework: Draw 5 sketches of a Dice Design that differs from the traditional white cube with black dots.

Assessment: Contribution to class time. Ability to work with others. Creativity of work, diversity of ideas. Dice designs will be graded.

Week 11: Conversation

Brief Description: Small exercises will be performed in class asking students to come up with a variety of responses. (i.e. "Write 5 unique replies to this text message", "Write 5 conversation starters at a Halloween Party", Write 5 questions to ask while being interviewed for a job")

Homework: Instructor will email the class a question. Each student is to reply with 10 one-sentence responses to the question that vary in nature.

Assessment: Creativity of ideas, diversity of thinking, participation.

Week 12: Christmas Ornament

Brief Description: Students will be asked to sketch 3 design ideas for a holiday ornament. Different topics will be covered (i.e. wreath, first Christmas, newlyweds, transportation) We will put these on the wall and class will discuss the successful and unsuccessful ideas.

Homework: Come up with a design for an ornament that commemorates a highlight of your year. Now make 3 more sketches that say the same thing differently. Present your favorite idea to the class.

Assessment: Creativity of ideas, diversity of thinking, participation, presentation of ideas.

Week 13: Yardwork

Brief Description: Students will exercise their spatial design skills and creativity by doing exercises involving landscape design. House/Yard schematics will be given to the students. They will be asked to design the landscaping in 3 different ways. Themes may be given such as Formal, Country Cottage, or Tropical. A large map can be made with cut out felt representing plants and trees. These can be rearranged by the students.

Homework: Draw your home's yard layout. (google maps image will also work) Now sketch 3 redesigns: 1 for a small budget, one for a medium budget, one for cost-is-not factor.

Assessment: Creativity of ideas, diversity of thinking, participation. Success of homework designs.

Week 14: Video Game

Brief Description: Groups will be formed and given a topic (War, Baseball, Puzzles, ect.) They will then create a video game plot around this. Groups will then be asked to switch with another team and the new team will develop characters for the other teams plot. Teams will switch once more and the new teams will develop a gameplay style.

Homework: Choose your favorite Video Game that you've played. Now add to it in whatever way would improve it. (could be characters, maps, rules, ect.) Sketch out your ideas and present them to class.

Assessment: Creativity of ideas, diversity of thinking, participation, communication skills.

Week 15: Headlines and Images

Brief Description: 1) Present award winning ads with nice headlines. 2) Now show the class an ad that has it's headline removed. Ask them to come up with 5 ideas for the headline. 3) Now show the class a Headline. Ask them to come up with 5 images that can accompany and enhance the line. 4) Present award winning ads without headlines (image based) 5) Class will then come up with ideas for these centered around a theme (i.e. tires, music...)

Note: Successful and Unsuccessful efforts will be talked about during class time.

Homework: Find 2 current ads in a magazine of your choice. On one, change the headline to improve it. On the other, sketch an image idea that will improve it.

Assessment: Creativity of ideas, Quality of ideas, communication skills.

Week 16: Class Planning

Brief Description: After having spent the semester going through class exercised designed to encourage creative and diverse thinking, students will be asked to design a class period of their own. First 2/3rds of class period: Students will develop 5 ideas for next class period.

Last 1/3 of class period: Students will choose their favorite idea and present it to the class. Class will vote on which idea they would like to spend week 16 doing.

Homework: If anything needs to be prepared before next class period for the winning idea, this will be the preparation period.

Assessment: Creativity of ideas, Quality of ideas, communication skills.

Week 17: Enact class planning

Brief Description: Winning week 15 planner will lead the class through their exercises for the day.

Assessment: Participation, Creativity, and Quality of input.

Appendix C: Collaboration Curriculum

Collaborative Thought I: 3rd Year Students

Overview

Because workplaces are rarely solitary, students will learn to work in diverse groups toward a common goal. Multidisciplinary in nature, this class will be a collaboration between writing students, business/marketing students, design students, and local businesses.

Principles

How to think collaboratively; Contribute meaningfully; Carry ideas through to their end in a group environment.

Implementation

Weeks 1-5: Students will be grouped randomly each class period and asked to solve problems together. These exercises will focus on the *process* of generating a worthwhile idea together rather than seeing the idea become a reality. Project subject matter will be varied to accommodate the diversity in this classroom.

Example:

Week 1: Crayon boxes

In-class Discussion Time:

Primary focus: Group decision making.

Secondary focus: The importance of editing and critical thinking in design.

In-class Activity: Class will break up into groups. Each group will have one full box of 96 Crayola crayons, and empty boxes for 48, 24, 12, and 3. They will edit 96 crayons down to 48, 48 to 24, 24 to 12, and 12 to 3. Leaving the stages in their boxes, they will present their thought processes to the class. Class will then discuss similarities and differences between groups.

Homework: Add 3 new colors to the Crayola 96 Box. Present as a group why you have chosen these colors to class.

Learning Points: Group roles, conflict management, cooperation, listening, editing down, reasoning, color selection, presentation skills.

Assessment: Contribution to discussion and group, presentation skills, reasoning skills, participation, quality of work.

Weeks 6-10: A project will be given to the class. Students will divide into fixed groups and work toward a viable solution. In week 9 and 10, they will professionally present their ideas to the professor and class as a whole. The class will then discuss which group came up with the best solution.

Example: Develop a travel and tourism campaign for the city of Istanbul, Turkey.

Weeks 11-15: 3rd year students will be placed into mixed groups (designer, writers, business students, marketers). These groups will then join the 4th year students who have been working on a semester project with a local not-for-profit organization. They will take on a helping role: carrying out tasks, implementing ideas, and doing the dirty work. This phase will focus on taking instruction from superiors and carrying them out with excellence. Valuable contribution to the project should be made, however, final say is in the hands of the 4th year students. They will attend the final presentation, but take on an observation role.

At the completion: Project managers (4th year students) will grade individuals on their ability to work well with the group and contribute to the process. In turn, 3rd year students will grade the project managers on their ability to lead well.

How this fits into the rest of the curriculum

After laying a foundation of *creative* and *critical* thinking, students will now utilize those skills while working in a diverse group. In the workforce, collaborative thought is a daily and necessary occurrence. This class will introduce design students, writing students, and business/marketing students to thinking outside of their realm of expertise, and in doing so, it will ready them for a career working alongside others to achieve a common goal.

Notes

An emphasis should be placed on everybody in the group adding something to the conversation. Promote confidence in sharing ideas, comfort with taking risks, and discourage riding-coattails.

Collaborative Thought II: 4th Year Students

Overview

Design, Writing, and Business/Marketing students will work together with a local not-for-profit organization on a multi-faceted project.

Principles

Leadership · Teamwork · Generosity · Real-world experience builds confidence and prepares students for the practical side of design.

Implementation

First 4 weeks: Students will be grouped together (An even mix of designers, writers, and business/marketing). Taking turns as Task Leaders, they will help guide discussion, steer thinking, and facilitate quality thinking on classroom projects. This phase will focus on leading effectively.

Weeks 5-16: Students will be presented with a multi-dimensional project by a local not-for-profit. They will then divide into teams and work together toward presenting a solution to the problem. Groups will work through the creative phase, the critical phase, and ultimately implement their ideas (with the help of 3rd year students) into a full-scale client presentation that clearly demonstrates their campaign solution.

Client, Professor and classmates will attend the presentations. Client will choose which campaign to implement.

How this fits into the rest of the curriculum

Further building upon what students learned in Collaborative Thought 1, this course emphasizes leadership, hard work, and interacting with real-world clients. Students will leave with a strong portfolio piece, enhanced resume, and on-the-job experience.

Notes

The charitable nature of this final project will encourage students to look outside of themselves and use their talents and abilities to help others. Additionally, the competitive nature of this final project will encourage hard work and excellence.

Appendix D: Adaptability Curriculum

Adaptability I

Overview

Change is inevitable. It is seen in the past, the present, and increasingly in the future. Designers must learn to navigate change in order to survive in the competitive workplace of today and tomorrow. Implementing adaptability into their classroom experience can help students begin this journey.

Principles

Designers must learn to learn, learn to embrace change, and learn to create change. In doing so, they are equipping themselves to survive and thrive amidst the coming changes.

Implementation

Weeks 1-5: Show Change

Emphasize the importance of adaptability in life and in the workplace. Present examples of historical change, present change, and possible future change. Elaborate on how designers will be asked to adapt in both small- and large-scale ways throughout their careers.

Example Assignments:

Case Study of Success:

Students are tasked with seeking out and reporting on individuals or organizations throughout history and in different walks of life who have successfully exhibited the skill of adaptability. Have them share their findings.

Case Study of Failure:

Students are tasked with seeking out and reporting on individuals or organizations throughout history and in different walks of life who have failed at adapting. Have them share their findings.

Weeks 6-10: Learning how to Learn

Present different methods of learning, how the brain works to learn and retain information, and how to implement them in a design career.

Example Assignments:

Week 7: What's your learning style?

Students report on their favorite learning style. They must share this information with the class in the same manner that they've selected. (i.e. hands-on learning, auditory, or visually)

Week 8: Learn a new App.

Students should seek out an App they have never used before, download it, and learn it. They may learn by experimenting, reading instructions and tutorials, or any combination that leads them to understand, navigate, and use the App successfully.

Week 9: Teach a new App.

Students lead demonstrations of how to use and navigate their chosen App for the class. Emphasize presentation skills, clarity, and utilizing learning methods previously learned.

Week 10: Creating Change

Present students with a mock assignment (i.e. design new, interactive Olympic Rings that work on an international level). Break them into groups and have them brainstorm and record ideas, including ideas that utilize technologies that have not been invented yet. Have groups present best ideas to class and discuss the steps it will take for these newly imagined technologies to come to life.

Weeks 11-15: The Ever-changing Project

This 5 week design project should have something due each week that will be assessed. However, each week a new twist will be added to the assignment for the next week. Students will feel the need to adapt firsthand and work through the stressful struggle of having to be flexible.

Week 11: Develop a print advertisement for the Indianapolis Zoo that focuses on a specific animal of your choice. Show 3 concepts.

Week 12: A new shark exhibit is coming to the Zoo, and they have decided to focus the ad on that. Revise accordingly. Show one polished ad, along with 5 concept roughs/sketches.

Week 13: Instead of print, the zoo has decided to make this an online campaign. Revise accordingly.

Week 14: The zoo wants this to be an interactive online ad. Please sketch 10 ideas for making the ad interactive.

Week 15: The shark exhibit is running over budget and the zoo can no longer afford to advertise. Have the class brainstorm ways to affordably spread the word about the new exhibit.

Appendix E: Communicative Curriculum

Design Communication I

Overview

From start to finish, a designer's career will be marked by various means of communication. They will constantly be required to share ideas through visual, written, and spoken means. Daily interactions with coworkers, clients, and consumers will impact them in powerful ways.

Principles

Emphasis will be placed on being clear, concise, impactful, and using the appropriate tone for the situation. Students' presentations will be recorded and reviewed in order to teach and track improvements. Emphasis will be placed on facilitating healthy and meaningful classroom critiques. Participation will be used in assessing students.

Implementation

Week 1: Overview/Importance

Instructor presents the importance of communication, and presents good and bad examples of communication in various design situations.

Example exercise: Play the end of an episode of *The Pitch*, or *The Apprentice*, where two teams present information to different degrees of success.

Week 2: Listening

Before students start work on the art of speaking, clue them in on the importance of being good listeners. Topics include active listening, empathizing, and comprehension.

Example exercise: Pair students and have them tell a childhood story. Emphasize active listening rather than waiting to speak. Once stories are exchanged, have students write down the other's story, including the emotions relayed and underlying ideals.

Week 3: Email/Written Correspondence

Discuss the importance of professional written correspondence and how to successfully write emails in a variety of circumstances. Present good and bad examples.

Example exercise: Send students 3 mock emails, one each from a boss, a coworker, and a client. Students should reply to each in a fitting manner. Stress clarity, tone, and grammar.

Week 4: Non-verbal Communication

Discuss and provide examples of how dramatically non-verbal cues can affect communication.

Example exercise: Have students repeat the same sentence using different body language in order to convey different messages.

Week 5: Pitching Ideas I

Discuss and provide examples of how to successfully pitch design work and ideas in a variety of situations.

Example exercise: Provide students with an already created ad. Allow time to prepare and pitch the ad as if in a board room setting.

Week 6: Pitching Ideas II

Discuss and provide examples of how to pitch ideas as a group.

Example exercise: Provide groups with already created websites. Have groups prepare a group presentation as if to clients. Let them know to prepare for client feedback as well.

Week 7: Pitching Ideas III

Group Presentations base on previous week's focus.

Week 8: Interviewing I

Discuss and provide examples of how to approach job interviews. Alleviate the mystery and anxiety surrounding job interviews.

Example exercise: Host mock interviews by providing students with questions and allowing them to practice and critique each other. Facilitate and provide coaching. Some institutions employ those whose job it is to prepare students for interviews, consider inviting them to speak and participate.

Week 9: Interviewing II

Discuss and provide examples of how to interview others for a position.

Example exercise: Prior to class time, ask students to bring three of their best designs to class with them. Set up mock interviews between students under the guise of hiring a junior designer to work for them. Provide interviewers time to develop lines of questions, and ask students to discuss their work when being interviewed.

Week 10: Video Conference

Rather than have students congregate inside the classroom this week, provide them with a meeting topic, and assign groups and group leaders with timeslots for hosting a video conference that you are involved in. Allow students to lead the meeting.

Week 11: Conflict Management

Discuss and provide examples of how to approach conflict in the workplace with an emphasis on listening, responding appropriately, and moving toward healthy resolution.

Example exercise: Instruct small groups to come up with a topic of discussion that has resulted in conflicting ideas, and have them talk through how to best move through the conflict into a state of cooperation and action.

Week 12: Negotiation

Discuss and provide examples of how to approach negotiations. Include both small-scale (price of car), and large-scale (warring nations) examples.

Example exercise: Host mock negotiations centered on design projects. This could include ideas such as a project timeline needs adjusted, a logo color is being questioned, or a raise is being requested.

Week 13: Texting/Social Media

Discuss and provide examples of how to approach texting and social media in various social and professional circles.

Example exercise: Have students compose various texts, tweets, posts, blog topics, etc. on various given topics and to various audiences.

Week 14: Phone Calls

Discuss and provide examples of how to approach phone conversations in the professional realm. Emphasize tone, clarity, conciseness, and listening skills.

Example exercise: Have students call and record interactions with 3 businesses with whom they are inquiring something. (i.e. cable provider, dentist, pizza delivery)

Week 15: Work Party/Networking

Discuss and provide examples of how to approach professional social situations.

Example exercise: Have students arrive to class in business casual attire, provide light refreshments and background music. Ask students to mingle, talk, discuss, and exchange contact info.

Appendix F: Productivity Curriculum

DESIGN PRODUCTIVITY I

Overview

Designers, almost innately, possess a desire to create. However, often, due to lack of productivity skills, they are left feeling unaccomplished, stressed, or as if they consistently fall short of goals. Learning to be productive in healthy ways will nurture creativity and allow designers to flourish. This class will seek to better equip students to meet deadlines, deal with stress in healthy ways, and increase their creative output.

Principles

Ability to focus on what is most important, to set goals and work intelligently toward them, to meet deadlines and achieve results, to manage stress in healthy ways, to use downtime wisely, to realize and act upon a desire to create, and to be self-reliant/self-motivated.

Implementation

Week 1: Overview/Importance

Instructor expresses the importance of productivity, and presents good and bad examples of productivity in various design situations.

Example exercise: Have students journal about a time they felt very productive, and a time they felt unproductive. Have them identify factors that contributed to each experience.

Week 2: Uncluttered Thinking

Present main ideas within David Allen's book *Ready for Anything: 52 Productivity Principles for Getting Things Done*: including the principles:

- "Clear your head for creativity"
- "Focus productively"
- "Create structures that work"
- "Relax and get in motion"

Example exercise: Help students practice these principles by beginning class periods with a time of task organization and refocusing on the present.

Week 3: Case Studies

Present students with real-world examples of local businesses and large corporations' approaches to productivity.

Example assignment: Have students report on a chosen corporation's productivity measures. (i.e. google, 3M, Toyota)

Week 4: Case Studies Report

Students present productivity case study reports via Powerpoint.

Week 5: Stress Management

Present ways to deal with stress in healthy ways.

Example exercise: Have students practice relaxation techniques within class period. Optional: Encourage students to put this into practice outside of the classroom before the next scheduled meeting time, and report back on if it was successful.

Week 6: Organization

Emphasize how organization skills can help keep a focused mind and improve productivity. Provide examples and methods.

Example exercise: Have students organize their email inbox and outbox, while sharing tips with each other.

Week 7: Work Smarter I

Have students self-teach by requiring them to seek out and understand a method that designers could implement to be more productive. (i.e. batch actions in Photoshop, helpful shortcuts in software, phone app that creates color palettes)

Week 8: Work Smarter Presentation

Students present tips and tricks to the class with hands on demonstrations when applicable.

Week 9: Action Steps

Emphasize the importance of approaching projects with a plan. Set goals and record action steps.

Example exercise: Provide students with a mock project. Have them create a list of action steps they would need to achieve successful completion of the project. Repeat.

Week 10: Proactive vs. Reactive

Emphasize the importance of being self-motivated, and becoming a proactive designer rather than reactive.

Example exercise: Have students keep a "time card" for three days. Follow this up with a self-report and review of their time spent.

Week 11: Work Smarter II

For a second time, have students self-teach by requiring them to seek out and understand a method that designers could implement to be more productive.

Week 12: Work Smarter Presentations

Students present tips and tricks to the class with hands on demonstrations when applicable.

Weeks 13-15: Juggling Multiple Projects.

Assign 3 Design projects at the beginning of class. They should vary in difficulty and time required. All will be due in 3 weeks. Require students to write action steps for each, and to keep an accurate time card for each project. Progress should be shown weekly.

Appendix G: Curiosity Curriculum

DESIGN CURIOSITY I

Overview

Curiosity is a catalyst for creativity. As such, this course is divided into 3 week blocks. Week 1 will center on discovery and questioning. Week 2 will focus on encouraging association and developing new questions through class discussion and sharing. Week 3 will focus on a creative project centered on the topic previously studied.

Principles

Questioning, Discovery, Experimenting, Associating, Presenting Ideas, Contributing to discussion

Implementation

Weeks 1-3: Example Topic: Dance

Week 1: Discovery Week

Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of Dance

Week 2: Discussion Week

Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Combine two types of dance into a logo for a new dance company named Dance Labs.

Week 3: Associating Week

Students present design work and thinking to class.

Weeks 4-6: Example Topic: National Parks

Week 4: Discovery Week

Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of National Parks

Week 5: Discussion Week

Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Create a National Parks Passport Book and 1 Example Park Stamp

Week 6: Associating Week

Students present design work and thinking to class.

Weeks 7-9: Example Topic: Weather

Week 7: Discovery Week

Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of Weather.

Week 8: Discussion Week

Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Imagine a new type of weather and its effects on the Earth.

Week 9: Associating Week

Students present ideas to class.

Weeks 10-12: Example Topic: Alternative Energy

Week 10: Discovery Week

Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of Alternative Energy.

Week 11: Discussion Week

Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Develop an idea for supplying clean water to people groups without it.

Week 12: Associating Week

Students present ideas to class.

Weeks 13-15: Example Topic: Transportation

Week 13: Discovery Week

Record thoughts, ideas, and examples in Curiosity Journal. Compose 20 Questions on the topic of Transportation.

Week 14: Discussion Week

Students share top questions with each other, and class discussion seeks to provide possible answers and generate more questions. At end of period, present class with project for next class period.

Example: Sketch ideas for a toy that combines a past or current form of transportation with an imagined future form of transportation.

Week 15: Associating Week

Students present ideas to class.

Appendix H: Bent Objects Lesson and Response

SAMPLE PERIOD

As the semester drew to a close I was given the opportunity to try out one of these lesson plans on real, live students. On December 7, 2011, I lead two successive class periods composed of sophomore Visual Communication & Design students at Purdue University.

I selected a lesson titled "Bent Objects", from the proposed Creative Thought course. This lesson looks at the work of Terry Border, a photographer/sculptor out of Indianapolis, and draws inspiration from his clever, creative works. Students were then asked (individually, in small groups, and as a whole class) to brainstorm images of their own.

LESSON PLAN

Creative Thought I

Lesson: Bent Objects

Intro (<10 mins)

- Why is creativity important, and why are your thoughts valuable?
- What am I looking for?
 - Participation and a willingness to be involved. Bad ideas have a place in the creative process, so don't be afraid to speak up. This isn't about polished art, this is about quality ideas. (example of good idea that needed someone else's art.)

Bent Objects (15 mins)

- Present Class with Terry Border's work (project on screen) Discuss his pieces.
 - Indianapolis-based artist's work will act as inspiration and get the creative brain juices flowing in class. Humorous aspect also acts as a barrier breaker to loosen class up.

Quickfire Challenges (15 mins)

Class discusses as a group

1. What's another circus peanut tragedy?
 - a. How do we represent that? What is his/her name?
 - b. (if time) Pick an object you have on you (purse, pocket, backpack)
 - c. Is there a scene we can make with this?

Instructor led group-think time will loosen class up, encourage brainstorming, and demonstrate how to approach a problem with divergent thinking.

Marshmallow Challenge (70 mins)

Provide sketch paper, marshmallows (large and mini), and paperclips

1. Individually, brainstorm and sketch 5+ rough ideas that include a marshmallow. (20 mins)
 - a. (Show slide) Ideas must be separate in nature.
2. Break class into groups of 5 where they will present their ideas to the others. (30 mins)
 - a. Group must select their 3 favorites and give them titles, improving them in any way they can. (idea doesn't have to be one that came from an individual if the group thinks of something it likes better)
3. Groups present their top 3 ideas to the class, talking them through the concepts. (20 min)
 - a. Groups should also answer: Which is your top choice and why?
4. Class quick vote on favorite. Summary thoughts?

Marshmallow challenge will utilize individual divergent thinking, small group creative process, and large group presentation skills.

Christmas Card Challenge (65 mins)

(Show slides of 3 christmas ideas from Terry Border)

1. Develop an idea for your Christmas card this year that uses objects associated with the holidays. (30 mins)
2. Present your favorite idea to the class. (30 minutes)
3. Class votes on which card it would send out. (5 minutes)

Christmas card challenge encourages broad, creative thinking revolving around a real life situation. By asking the students to present their work, they will refine their presentation skills, communication skills, and critical thinking skills.

Summary

To turn in:

1. Individuals Sketch paper for marshmallow ideas. (with name)
2. Group sketch paper for marshmallow ideas. (with names)
3. Christmas card sketch paper and final idea. (with name)

To hand out:

1. Evaluation Questionnaire to students

Record Class period

CHALLENGES

- Classroom was not conducive to creative, collaborative work.
Workstations were set up for computer work, with two large monitors in front of each students face, separating them from interaction with classmates. We sought to overcome this by moving small groups of students away from the computers into the corners of the room. During whole class critiques, students were asked to group at the front of the room, away from their computers. Ideally, the environment for such a class would include a large studio space with gathering/work tables included.
- Differing classroom dynamics.
The two class periods had separate dynamics. Students were more willing to participate, speak up, and contribute during the morning class. Afternoon students were somewhat reserved and slower to warm to the idea of the day. Perhaps due to this atmosphere, or the individuals themselves, it seemed as though end-products, on the whole, were less successful than in prior period.
- One day was not enough
Because this course on creative thinking is meant to last an entire semester, one day of activity was not enough to truly gauge the ability of the students to meld creatively. Often teamwork, and comfort in sharing ideas and opinions, is built over time. So on the one hand, it was nice to have these students at the end of their semester together. On the other, it was my first day with them, and expecting them to be instantly creative and lively was perhaps too lofty a goal.
- Students had their minds on other things
With one week until finals, and projects due in other classes, I felt a collective spirit of unrest as students came into the class and started to open and work on projects. To ask them to devote 3 solid hours to intense creative thought in a project they wouldn't be graded for began to feel like an over-ask on my part. Which is one reason I decided not to include the final hour-long exercise. Students had worked well together, had come up with some great stuff, and seemed to be ready to call it a day. So we did.

SUCSESSES

- Students seemed to respond to the art
Terry's "Bent Objects" did in fact act as a nice source of inspiration. We laughed and squirmed as we explored some of his work. It makes you look the everyday object in a new and fresh way, which is a great starting point for creativity. (See bentobjects.blogspot.com for examples of Terry's work.)
- Classroom had a creative energy
It wasn't immediate, and it wasn't constant, but there were moments of real creative energy and joy shared among the students. On a personal note, I found it really enjoyable to be surrounded by artists, discussing and creating in a learning environment. A nice give-and-take was achieved.
- I Saw real creativity
I was pleasantly surprised by some of the good, creative work that was achieved in such a short period of time. I believe students were also surprised at what they could come up with when giving it a little extra time and energy, as is evidenced in some of the comments they left. Yes, bad ideas were mixed in with the good, but bad ideas are part of the creative process.

Even in one class period it was clear that some students were more naturally gifted than others at divergent and critical thinking, which was not surprising except that the scale of the difference was fairly large.

STUDENT EVALUATIONS

Student evaluations were very positive

At the end of the period, students were given an evaluation to fill out. Results and brief commentary follow:

QUESTIONS 1-3

It appears that a large majority of the class believes that creativity can be taught (or refined, per some of the comments), and that they themselves would benefit from such a class.

I was also happy to see that all of the students rated the day as either excellent or good. If I were to evaluate the day myself, I would mark "good". Even while leading the first class, I was thinking of improvements that could be made for the second group. A course such as this lends itself to evolving and improving over time. And naturally, with only one day together, there were things I didn't say or convey that I had meant to.

QUESTION 4

What were the high points of today's class period?

A few student responses:

- "It was fun sharing ideas in a group setting. Having others to bounce ideas off of created better designs for the marshmallows."
- "This activity was definitely an out of the box experience, I would really enjoy creating something like this."
- "Thinking about things in new ways"
- "Pushing us to think about even the slightest details of our work and how they can make a huge difference in the piece"
- "Learning to be simple with the image while also saying a lot"
- "Just looking at one word like marshmallow and then seeing how many different ideas people have: some different, some the same."
- "Being able to bounce ideas off of a team and work together"
- "Usually it's hard for me to think creatively, but today it felt easier. It was an amazing/fun class."

The theme of "Bouncing" ideas off of others and working collaboratively came up in many of the responses as a high point. Students really seemed to feed off of the other's ideas. Interestingly though, some of the best ideas came from individuals during their alone time. It appears that a combination of alone and group time is a potent mix.

I was also glad to see that many of the students saw benefit in even the silliest of projects, as well as their willingness to devote themselves to thinking broadly.

QUESTION 5

What were the low points of today's class period? Do you have any suggestions for improvements?

While most of the students did not have any negative feedback to give, a few did. Three thoughts stood out to me:

1. That the warm up exercise was not as successful as it could have been.

Responses:

- Getting into the project was kinda slow, but once it got started, it was a lot of fun
- The class started a little slow with the peanuts, maybe try that at the end
- Slow starting until class opened up and became more vocal.

These all came out of the second period, which I agree started slow. I had counted the same exercise as a success in the first class period, but the afternoon students were much more reluctant to speak up. Perhaps an easy exercise that required everyone to contribute, regardless of if they wanted to, would have been good to insert in this situation.

2. Student's idea of time was vastly different.

Responses:

- Too much time. I feel as though our idea as a group could only go so far and we had extra time left over
- Maybe a little more time for development

3. Am I too opinionated?

Response:

- Maybe try having fewer opinions on what direction your students take their thoughts in

This is a tricky one for me, as some other students mentioned that they enjoyed the contributions of the instructor. My main goal was to become part of the small groups and help come up with ideas, ask questions, and give feedback as an example of how to think creatively in a small group. However, it would probably benefit the students more if I were to contribute and ask questions, but pull back on stating my likes and dislikes until the students have chosen for themselves. I would not want to stifle their creative thought processes. (For full list of Evaluation responses, see Appendix J)

SUMMARY

I found this exercise in teaching to be enjoyable and enlightening. I realized that walking in the door doesn't mean that students will be automatically engaged in what you are wanting to teach them. But I also learned that once engaged, students can do some powerful thinking. And ultimately, it served to encourage me in my pursuit of teaching full-time.