AN EXAMINATION OF THE ROLE OF THE CREATIVE ARTS IN STUDENT SUCCESS IN NON-ARTS FIELDS

BY MARA JEVERA FULMER

Dissertation Defense
October 24, 2014

*Submitted in partial fulfillment
of the requirements for the degree*
Doctor of Education

Ferris State University

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DEFINING THIS STUDY

Is there a relationship between creativity, innovation, and the mission of community colleges?

"The privilege of a lifetime is being who you are."
— Joseph Campbell

To define the study, I began with the question: is there a relationship between creativity, innovation, and improving community college student success?

I believed that the answer was yes. But in this data-driven educational environment, I knew a proper study would be needed to determine if there truly *was* any potential relationship. The purpose of my research, therefore, was to determine if students perceived any benefit from their arts experience and to find out if the creative process, as learned in visual and performing arts college courses, can have a *positive* impact on student success in their educational and career development.

Why take on this research?

Connections were visible to me.

But are they real?

I took on this research because, during the course of my doctoral studies, I could see connections between the challenges faced by community colleges, the best practices being offered in various reports by the experts to improve persistence and engagement, and the pedagogical approaches used to teach practice-based visual and performing arts courses.

COMMUNITY COLLEGES

- serve multiple missions

- have low reported graduation rates

- are vital to workforce development

Maintaining an open access institution is a worthy egalitarian vision. But the data indicates that graduation rates at community colleges for degrees and certificates are very low. Coupled with the looming performance-based funding that's under consideration by political leaders, the implications for the future of community colleges and the students we serve, could be devastating if the numbers - as they are currently gathered - are to be accepted.

Although transfer preparation is also an important part of the mission, in this Great Recession age, community colleges have been entrusted with ever more responsibility to prepare a well-trained and nimble workforce in this fast-changing economy.

COMMUNITY COLLEGE STUDENTS

• are often unprepared for college-level work

• could be more engaged in the learning process

• are eager to understand the relevance of their studies

Saddled with a sometimes insurmountable responsibility, we educate at least 42% of the approximately 19 million students in post-secondary education. Many are ill-prepared for the college level work ahead of them. On average, 60% of all CC students need at least one remedial course (Collins, 2009, 2010). At some institutions, this number is even higher. However, a myriad of authors have proposed that increasing student engagement is critical to improving student success.

LED BY MY OWN EXPERIENCES

I was also led by my own experiences, which involved a childhood heavily engaged in music, theatre, and visual arts. Academically, I was also strong in science, math, reading and writing. And I believed there was a connection.
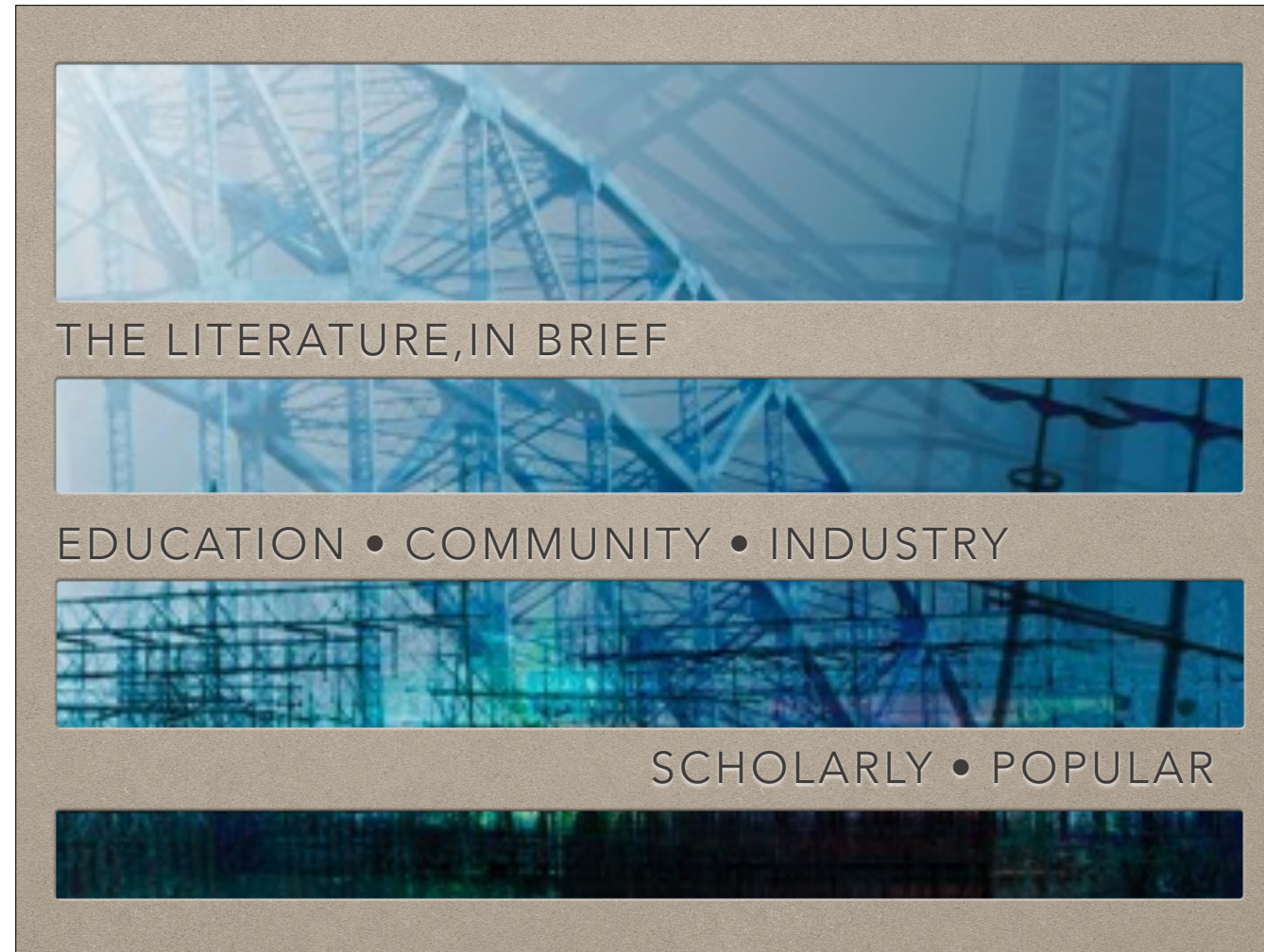
But the recent economic downturn crystallized for me how important it was to develop what Richard Florida (2002) called "creative competence" which he said is as critical as organizational design or strategic management in preparing the future workforce.

AND MY STUDENTS' EXPERIENCES

- Mini-study in 2011 - remedial students graduated at higher rate than others who didn't take an experiential art course.

- Would be the case for non-arts majors?

- Do students see any connection?

I had been observing my students throughout the years, and I knew they were frustrated having to wait until after they had taken remedial coursework, and even the pre-requisite courses, and were anxious to get a taste of their potential career. A mini-study I did in 2011 found that remedial students who were in a 1-credit experiential art course graduated at a higher rate than others in the program who had not taken that same course. This led to several potential conclusions - 1) Students were more engaged, and benefited from peer mentoring; and 2) the experiential nature of the art/design course may have helped them to succeed in another field.

THE LITERATURE, IN BRIEF

EDUCATION • COMMUNITY • INDUSTRY

SCHOLARLY • POPULAR

I next examined both the trade and scholarly literature from a variety of different perspectives, including educational and economic.

STEM VS STEAM

CALLS FOR STEM
AS AN ECONOMIC PANACEA

While STEM gets the majority of press as a panacea for economic recovery, getting students into STEM fields at community colleges has proven a difficult challenge due to the high standards for math and science. But, in a report by the Presidents Council of Advisors on Science and Technology (2010), the future of our nation hinges on a STEM education that encourages the innovations to solve our nation's health, energy, security, and environmental needs.

Although the intentions of STEM education is to prepare future workers who are innovators, inventors, logical, technologically literate, and problem-solvers – according to Morrison (August 2006) – arguments have been made by other authors such as Maeda, Pink, Sir Ken Robinson that the primarily logical convergent thinking dominant in STEM education must be balanced by the creative divergent thinking taught in the arts.

STEM VS STEAM
MOVING FROM CONVERGENT
TO DIVERGENT THINKING

Maeda says: "Art helps you see things in a less constrained space. Our economy is built upon convergent thinkers, people that execute things, get them done." Maeda claims that bringing the two together could lead to more innovations. By building STEAM, adding the Arts into STEM, many companies have adopted this as a business strategy that makes them more competitive in a tight economy.
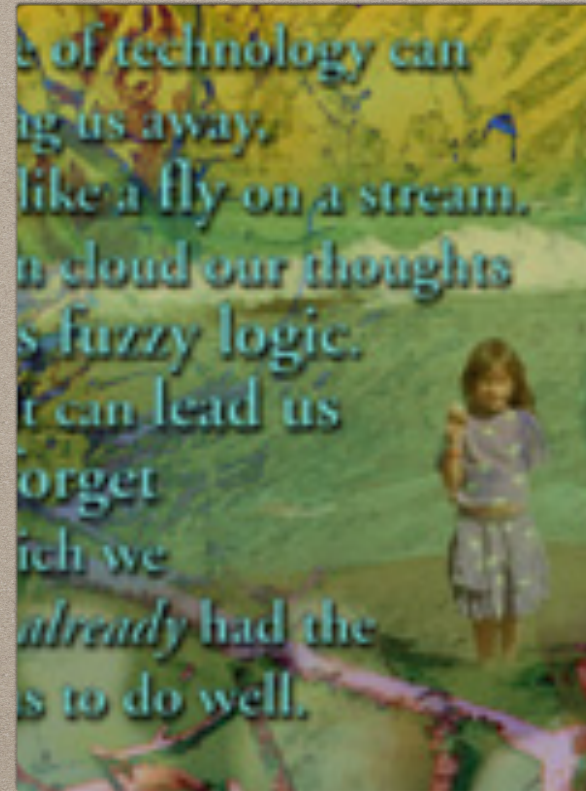
But even in K-12, where much of the literature is focused, there have been demonstrated improvements in GPA/SAT, and IQ scores, along with higher levels of math proficiency, engagement, cooperation and self-confidence. This was according to the Turnaround Arts Initiative, a Presidential public-private partnership meant to bring more arts education to high poverty schools.

A WHOLE NEW MIND & FOSTERING INNOVATION

COMMONALITIES IN THEORIES AND FUTURE WORKFORCE DEVELOPMENT

Bringing the issue back to an economic one, popular author Daniel Pink described a series of abilities that would be important to innovation. Companies like Google and Apple have built some of these - Design, Story, Empathy, Symphony, Play, and Meaning - into their very successful corporate cultures.

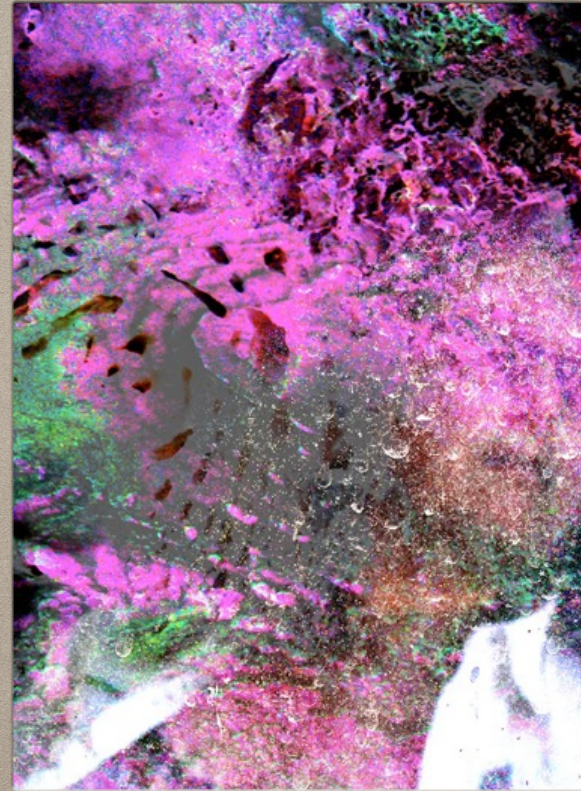STUDIO THINKING AND THE CREATION OF MIND

COMMONALITIES IN THEORIES AND FUTURE WORKFORCE DEVELOPMENT

When we look at moving from STEM to STEAM, other authors I encountered linked skills important to the future workforce, as being strong benefits of an arts integrated education. These included: Thinking and working creatively and collaboratively, communication, project and time management, use and evaluation of information, and technology applications.

From a student success standpoint, a study for the Heinz Foundation shared numerous examples of how the arts had successfully engaged students, especially those of color and low SES conditions, leading to increased academic success. "When students are actively engaged in creative thinking, they focus on ways that call for flexibility in thought and an integration of emotionality, rationality and meaning…"

**NELS:88
AND
NEA REPORT**
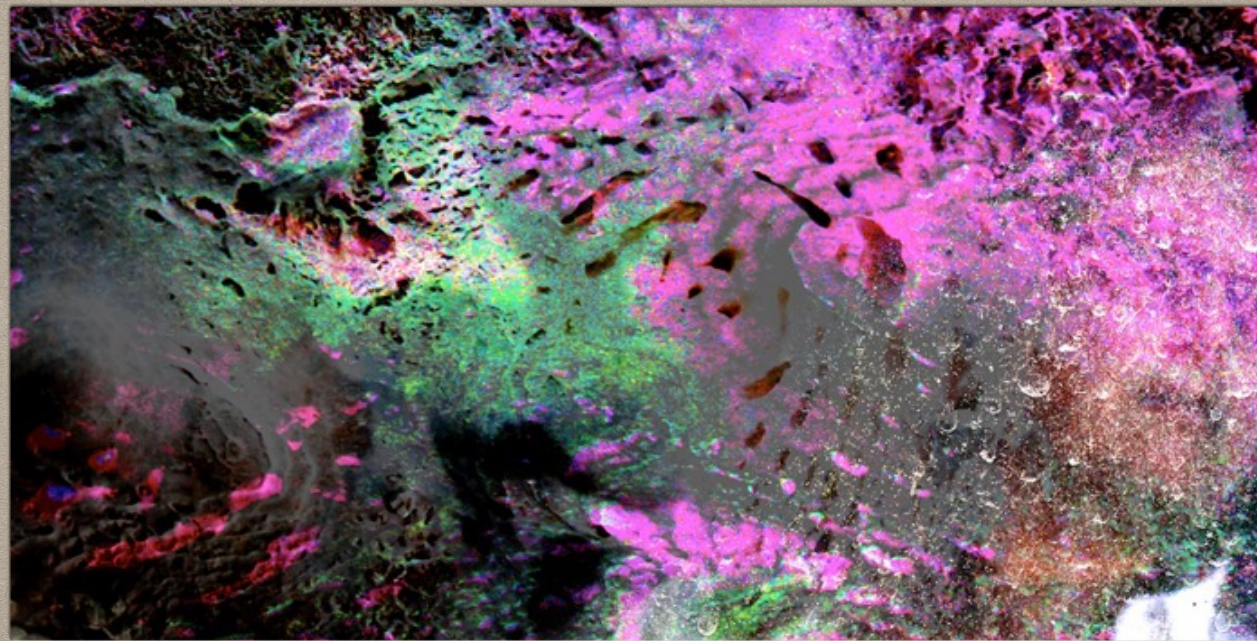
TWO MAJOR
REPORTS FOR K-12
ARTS IN
EDUCATION

In a 12-year study, data from the National Educational Longitudinal Survey from 1988 to 1999 followed about 12,000 18-26 yr-olds. James Cattarall found that there were "significant advantages for arts-engaged low SES students" that included more success in going to college, better grades in college, and successful employment. His study also found what he called a "halo effect" where students who had relatively low participation still benefited from the arts-rich culture.

STUDIO THINKING AND 8 HABITS OF MIND
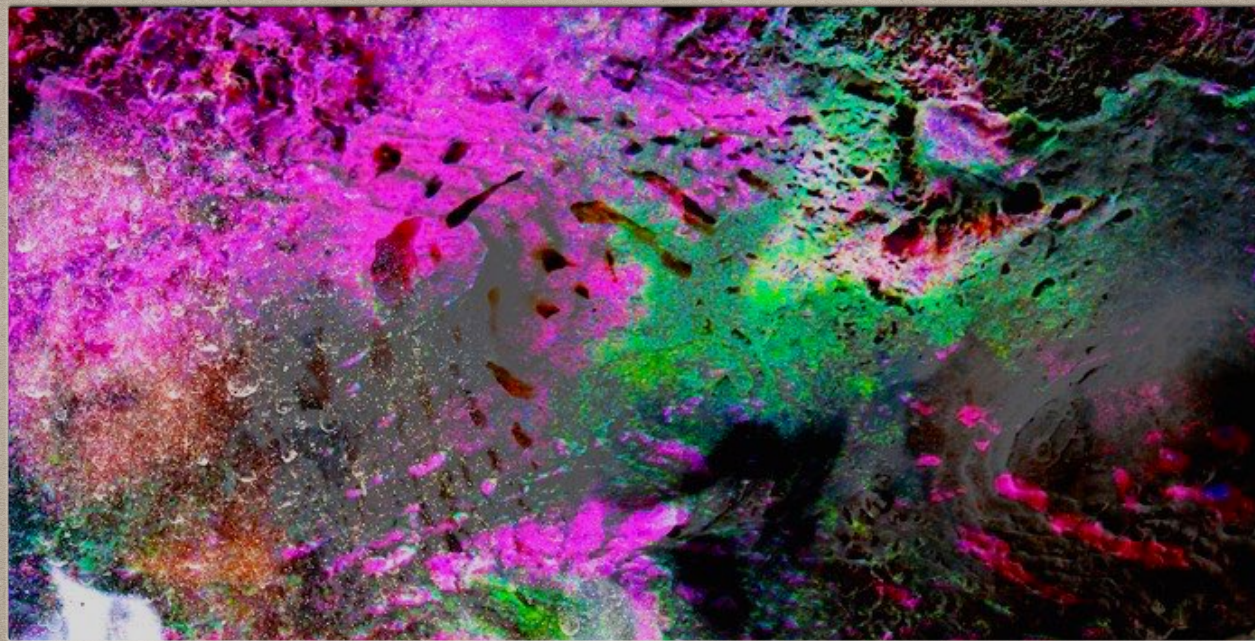
CORRELATION VS CAUSALITY

Whether skills learned from the arts are causal or correlational, authors Hetland, et al (2013) were able to describe a framework of what they called "habits of mind" which might explain the transferable cognitive abilities. The authors claimed these were a combination of mental habits make arts curriculum unique. Among the greatest benefits from the visual arts was the ability to learn to "see more clearly by looking past one's preconceptions," an important skill in many professions.

ARTS, ACHIEVEMENT
A PRACTICAL EXAMPLE

This was apparent in one of the only in-depth studies I came across addressing this subject at a post-secondary level, the Yale Medical School wanted to discover if an experience with the arts would "improve their medical students' ability to see reality the way it is" and more effectively diagnose and treat patients. The study, undertaken by Dolev and company, was described in an article in the *Journal of Management Inquiry* by Nancy Adler (2011). During the art class, students learned the process of describing every detail of a painted portrait, the physical attributes, and patterns, that would support any conclusions they made. She said "rather than simply making global assessments based on what they had expected to see, the arts-trained medical students more accurately saw the actual condition of the patients" (Adler, 2011).
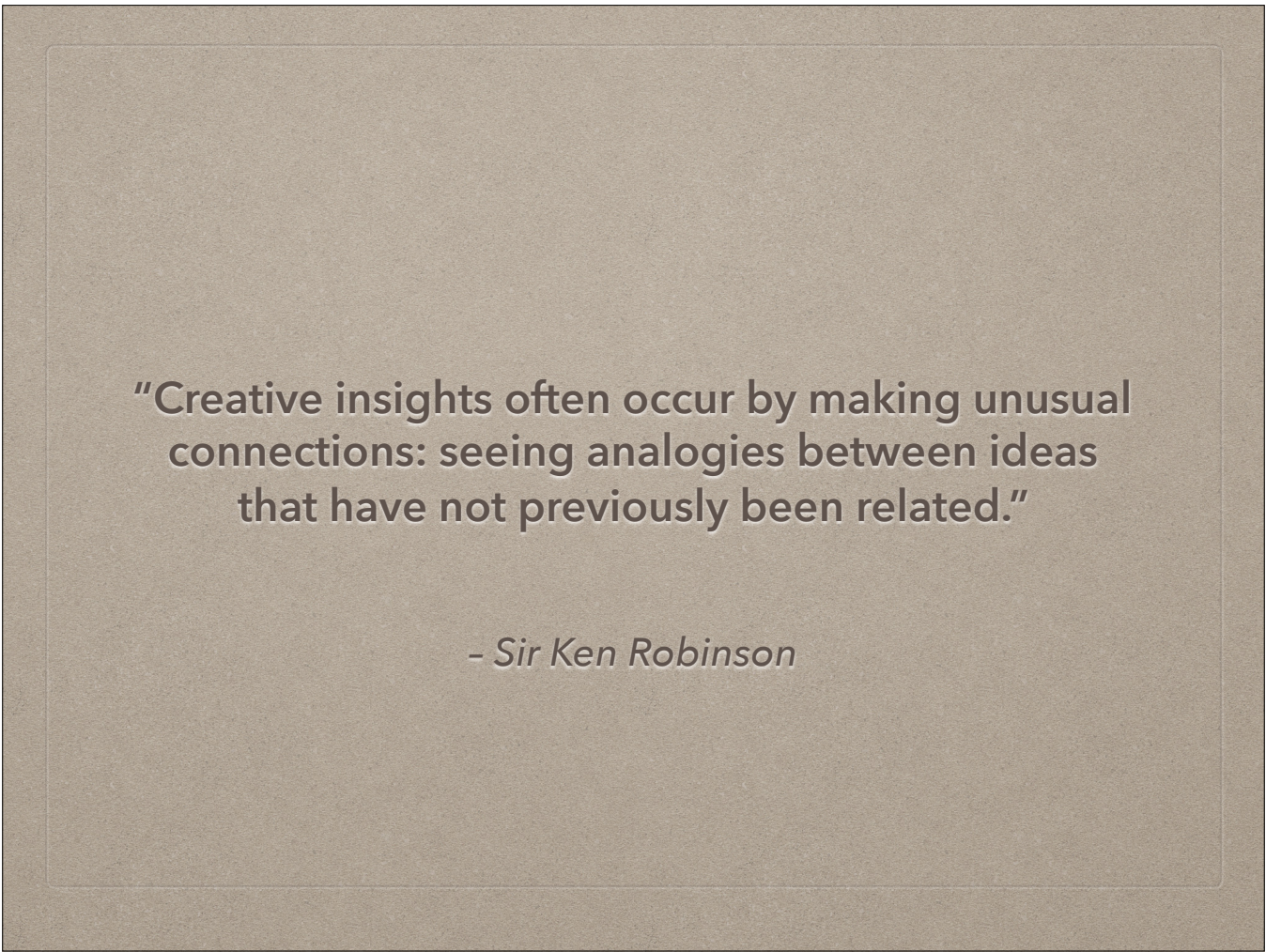
ARTS, ACHIEVEMENT
A PRACTICAL EXAMPLE

The results of the two-year study were astounding, with the art-trained medical students showing a 25% increase in diagnostic accuracy over the control group (56% vs. 44% comparable accuracy). Yale now requires a similar visual arts course for all their medical students.

Other studies were conducted by Harvard where the results were even higher, a 36% improvement in diagnostic accuracy over those who had not taken the visual arts literacy course chosen for the study. Dr. Joel Katz said "We're trying to train students to not make assumptions about what they're going to see, but to do deep looking" (Kowalcyk, 2008).

> "Creative insights often occur by making unusual connections: seeing analogies between ideas that have not previously been related."
>
> *– Sir Ken Robinson*

[READ QUOTE]

This quote by Sir Ken Robinson seemed to capture the meaning of my charge.

My two research questions came from exploring these potentially "unusual connections"…

#1:

How important is creativity and arts experience (or its absence) to student success in educational experience and career development as perceived by STEM or non-art majors and graduates?

RESEARCH QUESTION #2

- Do graduates from STEM or non-arts fields at a community college, who have taken one or more practice-based visual or performing arts courses, believe that their prior arts experience gives them an edge on their non-art colleagues?

#2:

Do graduates from STEM or other non-arts fields at a community college, who have taken one or more practice-based visual or performing arts courses, believe that their prior arts experience gives them an edge on their non-art colleagues?

THE METHODOLOGY, A SUMMARY

SAMPLING • PARADIGM • INTERVIEWS

TRANSCRIPTION • CODING • ANALYSIS

What follows is a brief summary of the methodology used for this study.

QUALITATIVE RESEARCH:
VARIATION

- Portraiture Method

- Ethnographic method

- Sarah Lawrence-Lightfoot & Jessica Hoffman Davis (1997)

- Combines longer and multiple Interviews and Observations

- Create a "portrait" of the interview subject.

The study undertaken was qualitative and borrowed heavily from the Portraiture Method as described by two Harvard researchers Lawrence-Lightfoot and Hoffman Davis. Portraiture is built upon an ethnographic and phenomenological framework. However, the availability of my interview subjects did not lend itself to multiple or longterm observations. Our interviews lasted 60-90 minutes, and followed proper qualitative methods, including informed consent. The objective was to gather perceptual data compiled from highly descriptive narrative portraits.

DETERMINING THE SAMPLE

Process	Results
Initial sampling from 2007-2013, completed 45 of more credits at community college, non-arts Major for latest degree/studies, and one or more arts courses.	1009
# who completed 1 or more practice-based arts course (visual arts - studio and design, theatre, music)	109
Identified for contact via Facebook with follow up by snail mail.	38
Final number of study participants based on responses from FB and snail mail invitations.	7

My initial data sampling was 1009 students from 2007-2013 and included those who had completed 45 or more credits at the CC, were non-arts majors for their latest degree or program of study, and had taken one or more arts courses. Other data such as GPA and race were not available to me. To reduce the set, I removed any students who had taken only the lecture-based courses such as art history or music appreciation, and then eliminated photography and Media Technology courses, bringing the data-set down to 109 students.

After seeking students on social media, I was able to identify 38 students on FaceBook and reached out to them via FB Messaging. I followed up with a letter sent by snail mail that said the same thing. After numerous responses, I was able to arrange interviews for a total of 7 students. While there was more interest, nailing down an interview time - or a response in a timely manner - was a challenge.

CODING & ANALYZING RESULTS

EXAMINING PATTERNS AND THEMES

The process of analyzing the data began with transcription, followed by coding and analysis.

DEMOGRAPHIC SUMMARY

	Name/ID	Gender	Age	Race	School District
1	Ray	M	25	White	Suburban
2	Traci	F	30	White	Suburban
3	Ralph	M	39	Black	Urban
4	James	M	36	Black	Urban
5	Brea	F	31	White	Rural
6	Hannah	F	34	White	Suburban
7	Zeke	M	25	Mixed Anglo-Asian	Suburban

Note: Age, Race and School District were self-identified at time of interview. All names are pseudonyms.

First, although the final results are based upon a small sampling of only seven students, the participants were diverse and included:

4 males & 3 females

4 white, 2 black, and 1 student who identified as mixed Anglo-Asian

They came from school districts that included: 4 Suburban, 2 urban, and 1 rural districts.

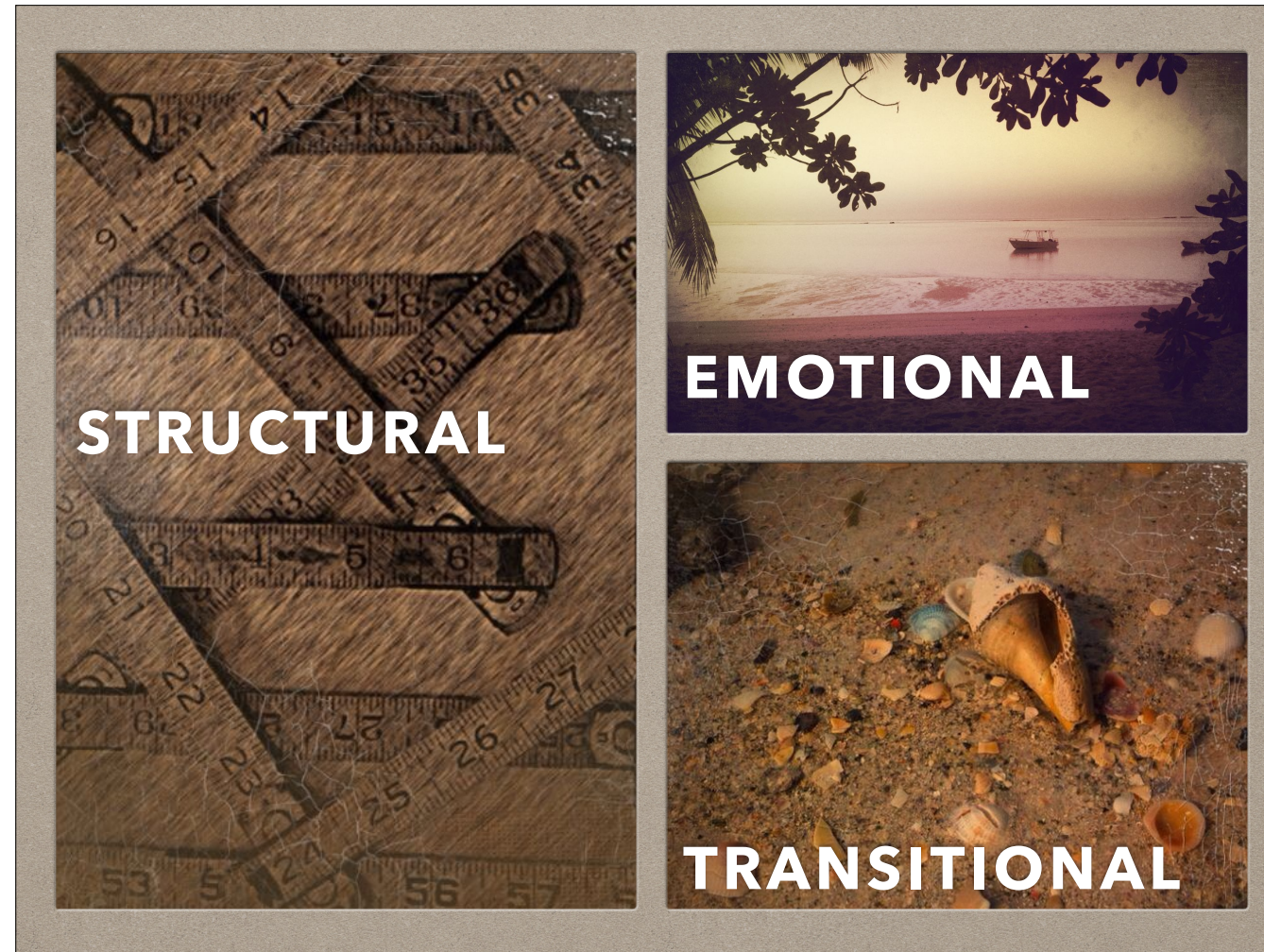And they ranged in age from 25 to 39.

SUMMARY OF EDUCATIONAL BACKGROUNDS

	Name/ID	Completed College Degrees	Current Student	Educational Plan	Current Employment	Career Plan	Art Courses at Community College
				Education & Career Data			
1	Ray	AAS in Electronics	N	none	Electronics Technician in auto industry	Electronics Technician and Musician/Composer; Interest in Music Technology	Music Theory, guitar class, Vocal course.
2	Traci	AAS in Graphic Design	Y	AAS in Nursing	Freelance Comics, occasional retail.	Nursing. Interest in medical communications or illustration.	Foundation Art Studios, upper level studios in Graphic Design & Illustration
3	Ralph	AAS in Criminal Justice	Y	Bachelors in Criminal Justice or Bachelors in Theatre. Currently "taking a break"	Assembly Line for auto industry	Fulltime actor	Theatre, Acting
4	James	AA and AS (no major)	Y	BS in Information Technology minor computer science	Computer Technician in auto industry	Interest in owning his own computer repair business.	Piano class. Describes also having taken drawing and theatre courses.
5	Brea	AAS in Business Management	N	Bachelors, possibly combining arts and management	Waitress	Own her own Internet business selling upcycled fashion products	Basic Drawing I and II, Basic 2D Design
6	Hannah	AAS in Graphic Design BS in Information Technology	N	Nothing specific	None stay-at-home mom Previously worked for tech industry as designer/data entry	Interest in working in Forensics in IT	Foundation Art Studios, upper level studios in Graphic Design
7	Zeke	AAS in Graphic Design AS in Science	Y	BS in Chemistry	Library Communications and personal small vinyl business	Chemist, educator. Work in chemistry area that uses his arts training.	Foundation Art Studios, upper level studios in Graphic Design

See page 71 for a larger version of this table.

Their education and career backgrounds are as follows:

- All 7 have completed at least one Associates degree.
- 4 are currently enrolled either earning another Associates degree, or have transferred into or completed a Bachelors degree.
- 3 completed full degrees in Art/Design before switching to another field.
- They studied music performance, studio art, and theatre and acting.

Patterns in the phrases and descriptions used by each of the participants became apparent. I reviewed the transcripts again and again, finding synonyms and similarities in the meaning of terms used by the interviewees. Later, after categorizing these phrases, I realized I had created a taxonomy of words that shared similarities to Bloom's. However, I did not restrict myself to this model and instead created a sorting technique that looked at the longer phrases and stories, rather than single words.

Three major themes emerged:

- Structural
- Emotional
- Transitional

There were also a range of 8 sub-themes.

SUMMARY OF THEMATIC CODES

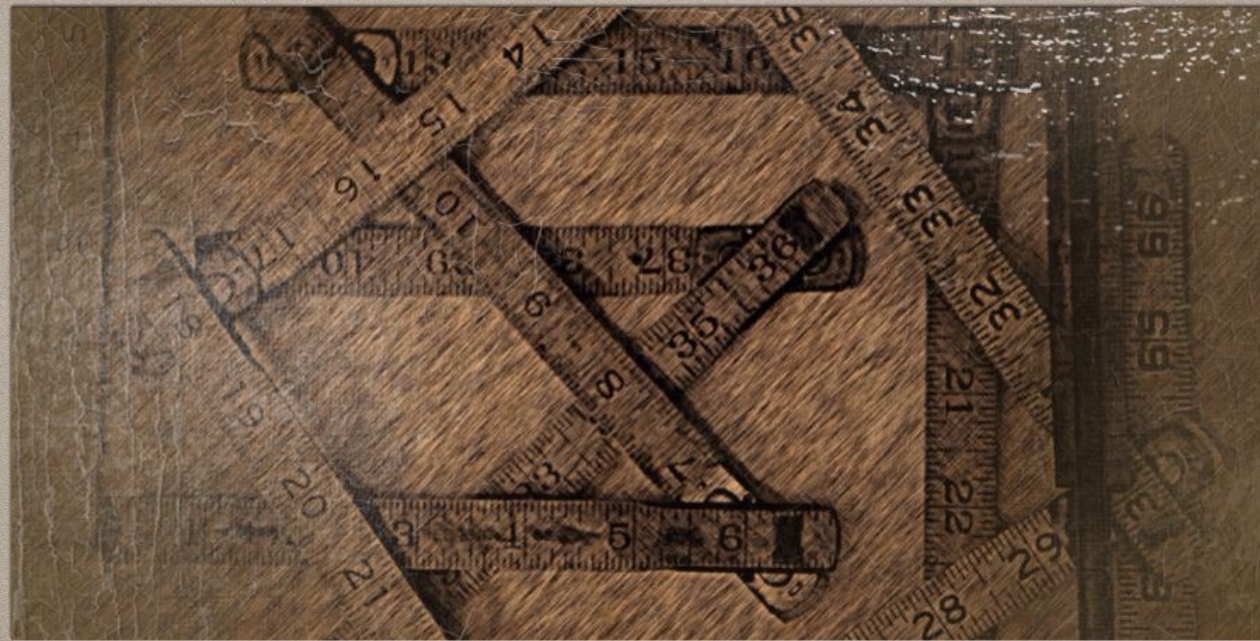| Major Thematic Categories, Sub Themes and Key Words or Phrases		
Major Theme	**STRUCTURAL**	
Sub Themes	Understanding Complex Systems	Bridging Interests
Key Words or Phrases	structure, order, broken down, built up, possible choices, complex system, simplify, details, grey area, variability, process, parameters, time management, [to look at] code, unwrap, extrapolate, foresight	[in context of art and career] mix, work together, bridge, combining, transition
Major Theme	**EMOTIONAL**	
Sub Themes	Patience & Persistence	Collaboration & Teamwork	Personal & Professional Communications
Key Words or Phrases	patience, learn, move on, mistake, cope, [to] handle, emotions, how to deal, balance, stress relief, get it done, problem-solving, think, conscious, discipline	teamwork, different perspective, confidence, together, we [were], different ways, peer	verbal/talking, communicate, clear, concise, to the point, talk, asking questions, convey
Major Theme	**TRANSITIONAL**	
Sub Themes	Disillusionment	Inspiration	Transformation
Key Words or Phrases	shady, final straw, questioning [self-doubt], phase, just a [job], pay cut, want to/have to, exhausting, know better, paycheck job, too hard, discouraged, mind-numbing, robot, rough	family, paying attention, realize, decision, faculty [name], reward, creativity, soothe, break the mold, wanting to know, discover, interesting, interact,	awakening, maturing, goal, surprising, appreciation, enjoy, possibilities, appealing, discover
Note: The keywords listed do not include the many synonyms that might have been used by different respondents.		

This Table is the overview of the words and phrases used to code the data and develop the thematic groupings.

For instance, the sub-theme "Understanding Complex Systems" used phrases addressed the concrete and "grey" areas that were an important part of understanding interrelated systems.

"Patience & Persistence" involved phrases addressing challenges. Phrases like "how to deal", or "move on" or "discipline" spoke to issues of persistence in the face of challenges.

THE STRUCTURAL THEME

UNDERSTANDING COMPLEX SYSTEMS
& BRIDGING INTERESTS

The Structural Theme deals primarily with elements of complexity, organizational issues, and making connections and included two sub-themes.

> "I had trouble with it [art's variability]...
> [In science and math] there's no grey area.
> And arts just blew that out of the water.
> It's always a grey area.
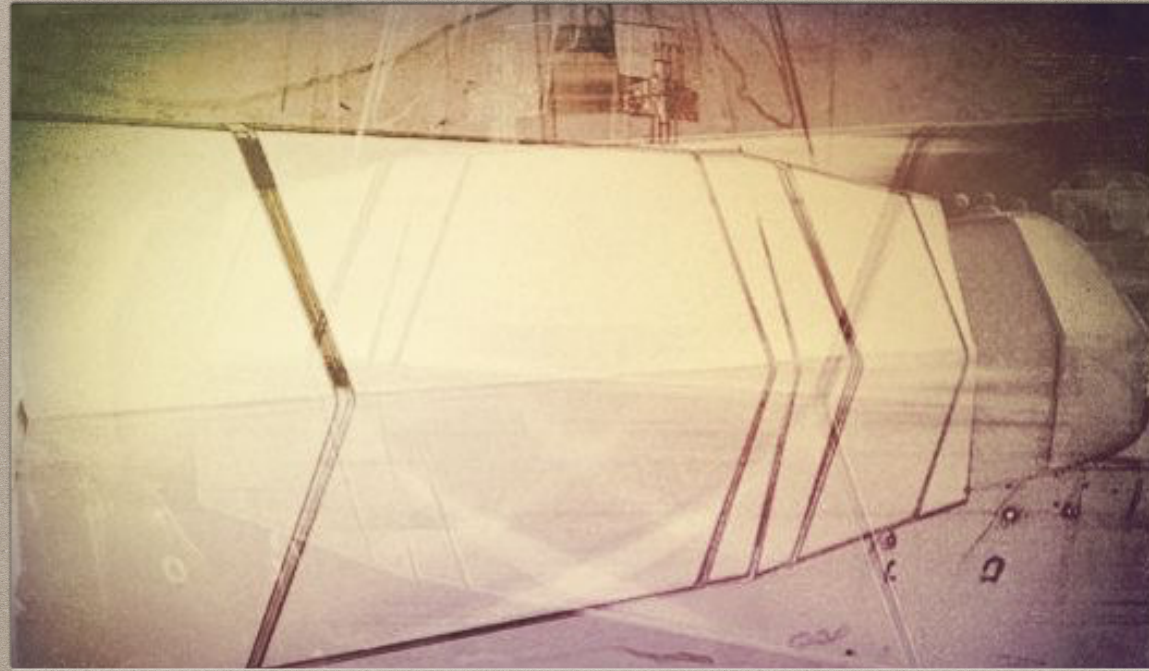> That *is* art, the grey area in life."
>
> – James

STRUCTURAL THEME

[READ QUOTE]

This quote, by the participant named James, who did not want his image used, captures a major distinction that he and others felt was inherent in art compared to the sciences and business.

UNDERSTANDING COMPLEX SYSTEMS

For many of the students, their training in the visual or performing arts gave them a language of metaphor that helped them describe other situations they encountered in their work in a STEM field.

"...[I] took away from music theory...the basic way that a song is structured...[with] small parts all coming together. Most prefer that it be done in a certain order... [W]hen I'm at work opening up a circuit board, or [software] program, I'm thinking kind of along the same lines... They can be broken down or built up pretty similarly once you get right down to it... Instead of notes of music, you have wires on a circuit board, or lines of code in a program."

– Ray

STRUCTURAL THEME - UNDERSTANDING COMPLEX SYSTEMS

[READ QUOTE]

Ray's description is a perfect example of Daniel Pink's element of "Symphony" where there is an ability to see the overall picture, then smaller details, proportions, light, shadow, and the interrelationships inherent in an orchestral composition. It shares many aspects of Senge's Systems Thinking and Mastery which also emphasize the understanding of the interconnected elements in a larger complex system.

"[W]ith chemistry, being able to visualize things in your head [is useful]. I can picture [the element's structure]. I can rotate it in my head, and I can really manipulate… to get an understanding of the shapes. Because when chemistry started adding some shorthand… I have to unwrap it back into something that makes sense to me."

– Zeke

STRUCTURAL THEME - UNDERSTANDING COMPLEX SYSTEMS

[READ QUOTE] Sir Ken Robinson calls this a form of creativity which, he says, "involves breaching the boundaries between different frames of reference" (2001). As I investigated this further, it seemed to be an evolutionary ability to practice what Sagan called "Simultaneous" or "parallel" thinking.

"That's why I'm screwing up [on tests]…[W]e're given four possible choices for what we should do [in a given] situation. And I'm like, they're *all* possible choices! …I'm gonna do *all* those things! A, B, C, D, and E… [A]nd I'm going to explain to you why I chose them! …I will draw you a diagram!"

– Traci

STRUCTURAL THEME - UNDERSTANDING COMPLEX SYSTEMS

[READ QUOTE]

For Traci, our nursing student, her challenge came in seeing TOO MANY potential connections. She felt she could even use the vocabulary of nursing to justify why one solution was as viable as another.

BRIDGING INTERESTS

The second sub-theme under the Structural category was Bridging Interests and this, as the name implies, indicates a clearly understood connection between what the students had studied for a non-arts major, and their prior arts experiences. There was a divide between some who preferred to use their music or fine arts as a therapeutic stress reliever, and others who wished to make a direct connection to their arts either through a career that bridged them both, or through the application of one area into another.

– Traci

"[W]hen I was at the nursing home, there were clients there who couldn't speak. And who couldn't hear. But they could see. And they couldn't see well, though... But, if you drew a picture, they understood it. You know, you draw a picture with a plate, and a fork and spoon on it, and a question "do you want to eat?" they understand that. They would answer you."

STRUCTURAL THEME - BRIDGING INTERESTS

[READ QUOTE] Traci is a former designer/illustrator who was now studying nursing. However, she is beginning to see many different opportunities for how she could put her illustration skills to use in her nursing work. Down the road, she even sees the possibility of taking her two areas of study and working in healthcare and patient communications.

"I guess I kind of realized that having my own business, ...was my ultimate goal. But... going to art classes... I can take these management skills and I can translate them into using what is something I've always enjoyed, which is art and designing things, and just sitting down and working with my hands and creating something that someone else says 'That's awesome!'"

– Brea

STRUCTURAL THEME - BRIDGING INTERESTS

[READ QUOTE] Brea, who was the business major, found that her classes in the arts opened up new worlds of opportunity that would easily blend both interests. Going against the family norm, she found that she could create a job that provided the intrinsic motivation that gave her life more purpose than what she referred to as "just a job."

THE EMOTIONAL THEME

PATIENCE & PERSISTENCE, COLLABORATION & TEAMWORK, PERSONAL & PROFESSIONAL COMMUNICATIONS

The second overarching thematic category that emerged is the Emotional Theme which also broke down into three sub-themes.

Most participants either directly or indirectly described aspects of these as important and transferable skills gained from their arts training.

PATIENCE & PERSISTENCE

The ability to persevere, and patiently work through complex problems show a strong relationship to the pedagogical processes used in the visual and performing arts. Eisner shared that with the iterative process, "the act of expression is also an occasion for revising, even discovering and altering purposes."

– Ray

"...One of the things I quickly learned was that you can't let any of those things get to you.... Learn from it, don't let it get to you. Just keep going... So, in Electronics, if I fry a circuit board, or completely destroy something, break a tool. Okay, I didn't see that coming, and I know I'm not going to make this mistake again. I move on."

EMOTIONAL THEME - PATIENCE & PERSISTENCE

[READ QUOTE] Much like how Rosamund Zander described regarding the risks of failure, Ray accepted that his potential failures were really opportunities for learning and improvement in his field. He could see that he could move beyond the frustration and find the higher purpose of the mistake and reroute his attention accordingly.

"...[T[hose (art) classes... you can't just take two weeks to bang out an assignment. You have to have this thumbnailed, and done, and then (pause) do it again!
...I also think it was one of those necessary evils in my life. I needed to find a way to make my own structure."
[I learned] "to kind of decide quickly what my idea is that I need to roll with and get it done. And then I'd have more time to maybe get it to be the best it can be!"

– Brea

EMOTIONAL THEME - PATIENCE & PERSISTENCE

[READ QUOTE] Time management was an important part of this theme for Brea who found this to be a move from rote styles of organizational behavior management to more fluid ones, where the iterative process provides a framework for creative problem-solving within certain time constraints.

COLLABORATION & TEAMWORK

Similarly, participants cited the arts as giving them more confidence to work collaboratively. This may have be related to the issue of social identity… to being part of a group but NOT part, an outlier due to their arts identity. Based on the work of Haslam and company, in a recent article in Scientific American MIND (2014), these study participants may feel more confident in being that bridge to more creative ideas, nurturing a bit of risk- taking on the part of the team in order to affect transformation.

"[W]ith computer programming, it's never just somebody sitting at their desk all by themself now. It's not like that no more. Three or four people might get together and it's a team effort. You do the first part, I do all the calculations, you do the intro, you do the arts and graphics, and then we all get together... I was more confident, and I wasn't as shy."
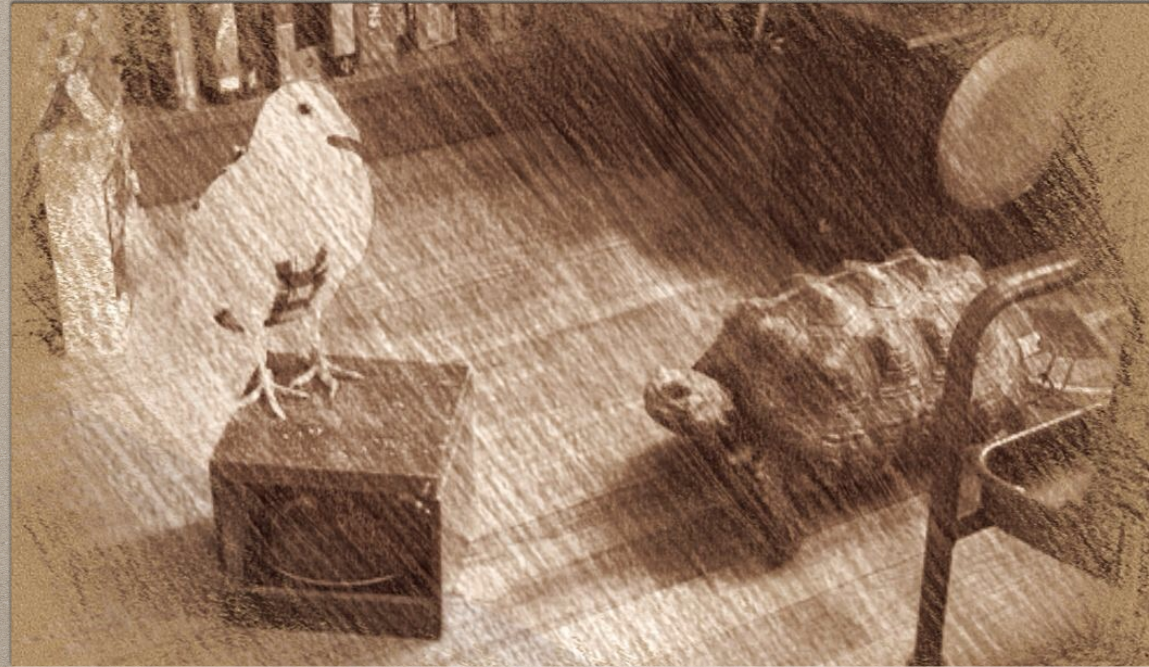
– James

EMOTIONAL THEME - COLLABORATION & TEAMWORK

[READ QUOTE] James attributes this increased confidence to having to perform in front of others while learning the piano.

PERSONAL & PROFESSIONAL COMMUNICATIONS

Personal & Professional Communications was the third sub-theme under the Emotional Category and came up in a variety of contexts during the interviews.

"I think we all wear a different 'mask' or give performances. (pause) Depending on where we are, you may be different here than you are at home, or at work, or with your girlfriends or friends... Everyone's a character. You have some quiet students, happy students, talkative... [I]t's the same thing at any manufacturing, or any place.... People have their quirks, and qualms."

– Ralph

EMOTIONAL THEME - PERSONAL & PROFESSIONAL COMMUNICATIONS

[READ QUOTE] Ralph, who works in an auto factory job and graduated with a degree in Criminal Justice, sees direct applications of his theatre training in how he communicates with other people in his world.

– Zeke

"If you do a math problem, you only need to show that the numbers come out right. You don't need to defend why you used the angle/angle/side theorem... [With art and design] it was very much learning about how to think about what you're doing consciously... I got to think critically about why I was choosing to do something. If I chose to do [a design with] a bamboo sprout, it was because it represented youth and vitality and strength, conveying that symbol to the people of Viet Nam, rather than, well [saying] ...bamboo is just a plant that grows in Asia." "

EMOTIONAL THEME - PERSONAL & PROFESSIONAL COMMUNICATIONS

[READ QUOTE] Zeke, another art/design major who then switched to a STEM field, was able to articulate his experiences on the differences in communication of an idea between Math and Design. In art and design, the development and application of symbolism and metaphor are at the forefront of objectives for communicating.

THE TRANSITIONAL THEME
DISILLUSIONMENT, INSPIRATION, TRANSFORMATION

The Transitional Theme was not anticipated to the level of intensity that occurred. While the arts are often associated with some kind of emotional enlightenment, I had not expected that the study participants would all share a sort of epiphany that truly demonstrated a maturing in their personal development. The fact that they also tied the arts to this experience to their transitional moment was gratifying.

The Transitional Category included three sub-themes.

DISILLUSIONMENT

In general, the Disillusionment Sub-theme was described as a turning point for many of the study participants. It involved a change in their major or career, and was precipitated by economics, the death of a close family member, or unanticipated difficulty in a class.
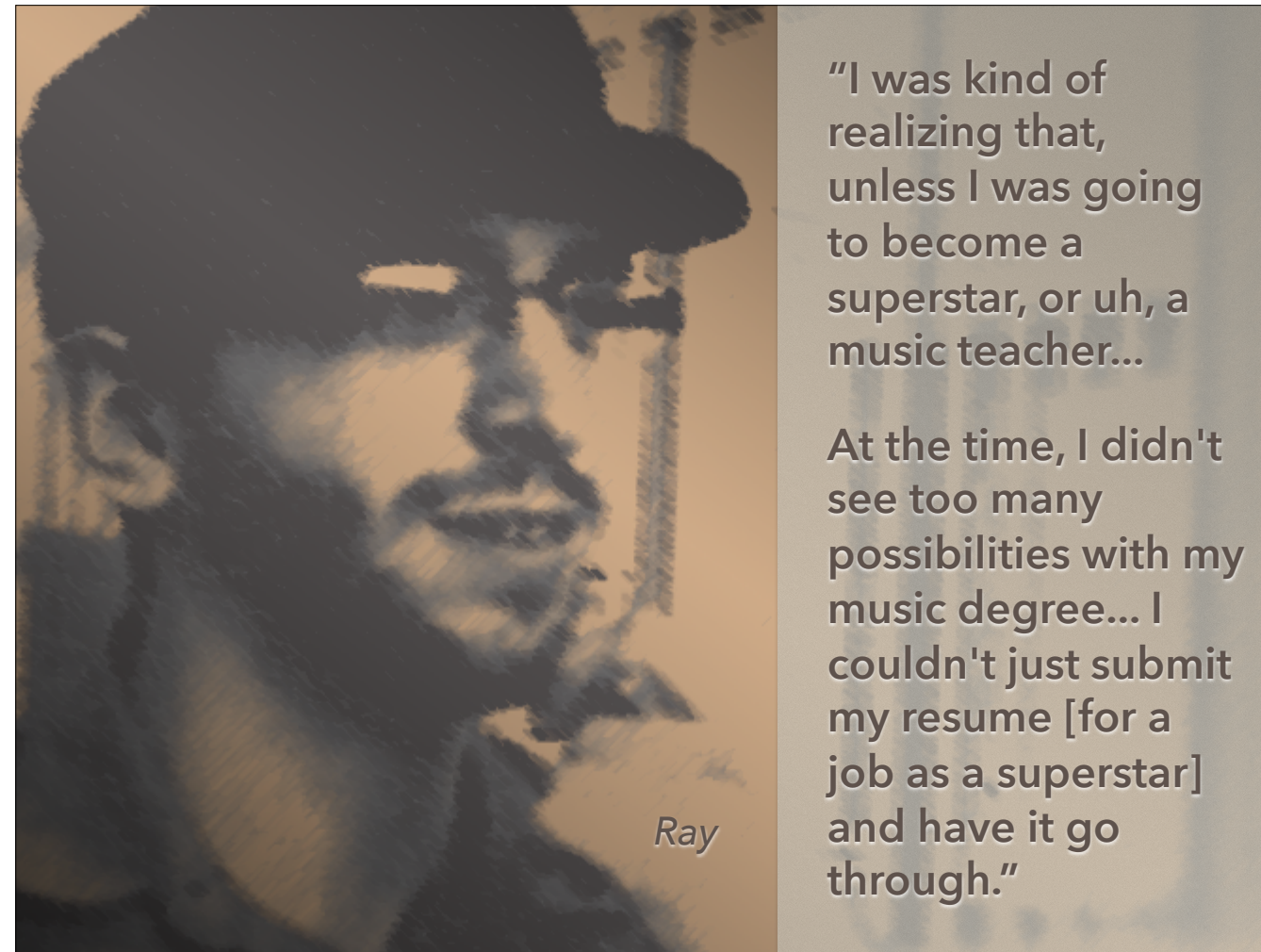
INSPIRATION

The Inspiration Sub-theme often overlapped with disillusionment, especially if the event created a positive opportunity that inspired a new direction.

Inspiration came from external influencers, a spiritual awakening, an intense curiosity, and unexpected discoveries in the course of their life's transitions.

TRANSFORMATION

The Transformation Sub-theme is the end-stage in this transitional process and was not apparent in all of the interviews. It's possible that there is still some transformation occurring for some of the participants.

Paralleling stages of human development, often without clear markers to delineate the start of a new stage, I have described the Transitional Theme in my dissertation by using more complete stories for each student participant.

"I was kind of realizing that, unless I was going to become a superstar, or uh, a music teacher...

At the time, I didn't see too many possibilities with my music degree... I couldn't just submit my resume [for a job as a superstar] and have it go through."

Ray

As I mentioned, the Transitional Theme borrows heavily from student development, especially the theory described as Seven Vectors by Chickering & Reisser (1993). While these vectors are not always linear, one of the most notable parallels I discovered in my study was their Vector #5 Establishing Identity.

When it came to the narrative shared by the Electronics Technician and musician named Ray, he came to a crossroads when he realized that a Vocal Music & Sight-singing class was not going well. Combined with a growing disillusionment with some bad encounters with promoters, Ray decided he needed to change his career direction. [READ QUOTE] Inspired by his family's prior computers and electronics business, he decided to move his career in that direction.
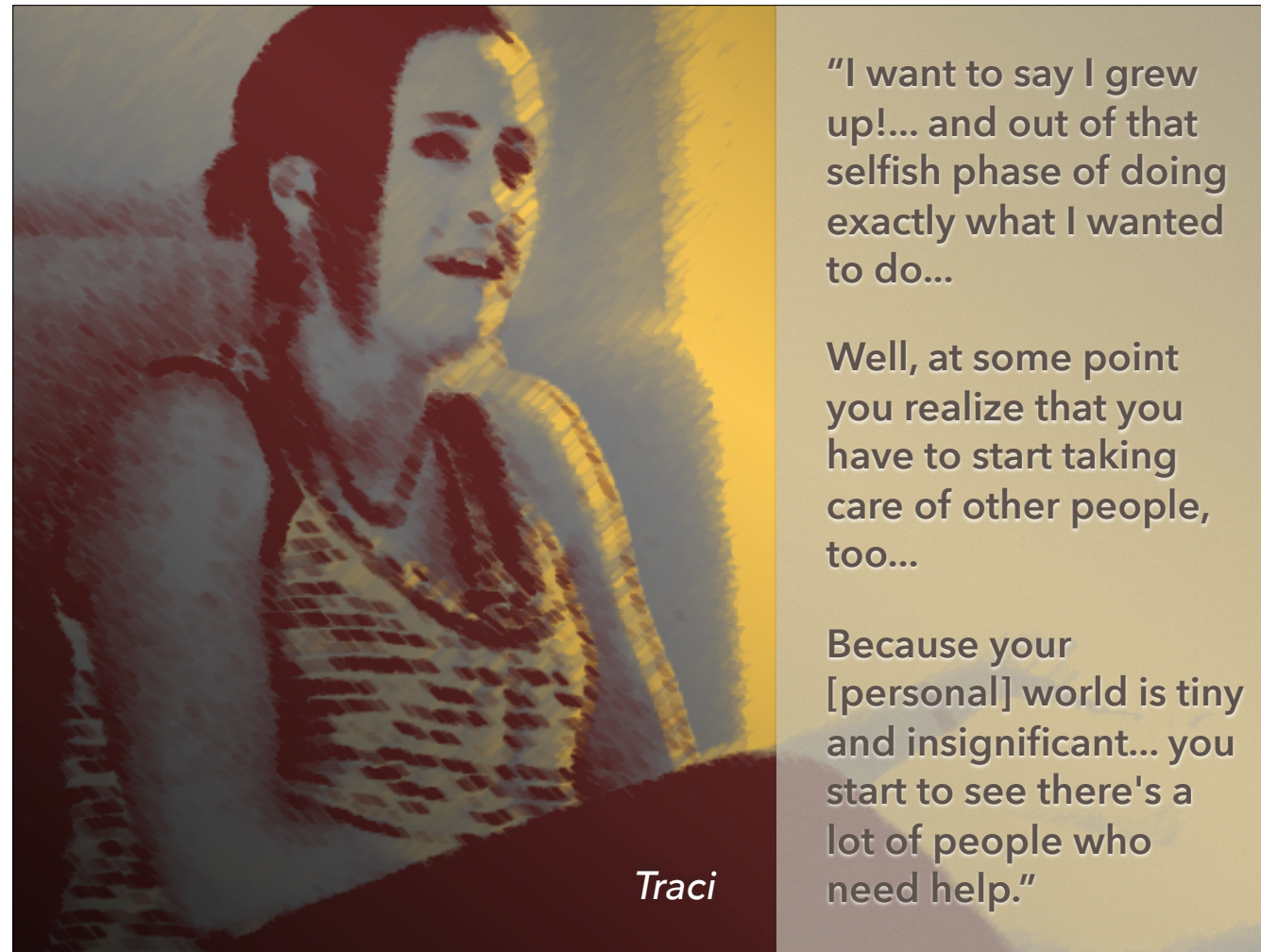
"Having kids generally changes your perspective on life. The things that I want to do, you know, don't always coincide with the things I have to do...

I didn't want [my son] to feel the things that I felt not having my father around. And wonder, and everything that comes with having, you know, I guess, emptiness."

Ralph

Ralph was the Criminal Justice major and theatre student. He was even able to keep up with auditions in order to stay in the theatre, television, and movie business. But he made his living working in an autofactory, rather than in any career related to Criminal Justice. [READ QUOTE]

Ralph's disillusionment was brought on by a quandary on his future bachelors degree and realizing that the job would not pay as well as his acting and factory jobs. His inspiration is his children who remind him of the importance of having a father who is present in their lives. But his transformation is still ongoing, beginning with becoming a father.

"I want to say I grew up!... and out of that selfish phase of doing exactly what I wanted to do...

Well, at some point you realize that you have to start taking care of other people, too...

Because your [personal] world is tiny and insignificant... you start to see there's a lot of people who need help."

Traci

Traci had enjoyed some success in her work in her dream job, and was confident in her future... until the economy tanked. She found herself being asked by her freelance employers to do more and more for less and less pay. She describes her disillusionment and the inspiration that emerged as a sort of awakening, especially after she started attending church, and also began paying closer attention to news stories about the human toll from the Great Recession.

[READ QUOTE]

Her transformation came after she began exploring nursing, something she says was always a potential career. Her family culture, however, had been less altruistic.
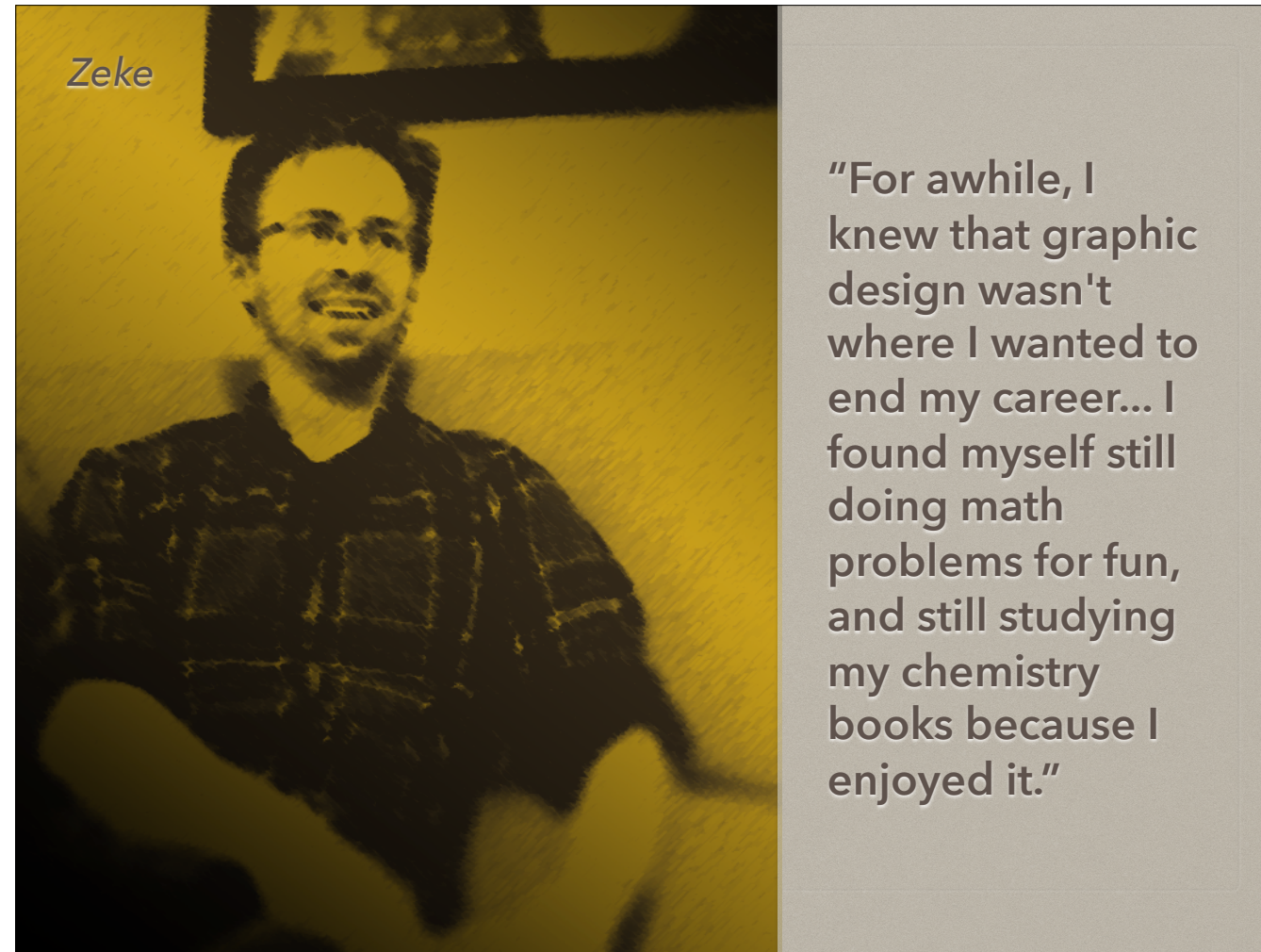
"I'm trying to break that mold [working in a factory job] for myself and my brother, and other people in my family...

I don't have to keep it [art] as just a hobby. It can be something I can use to make me money, and *enjoy* what I'm doing."

Brea

Brea's mother passed away just as she was starting her college classes. This left Brea taking on the responsibility of caring for a younger brother, and also a newborn baby of her own. She continued with her educational plans on a part-time basis in spite of this crisis, but with one new addition. Her mother had told her to do something she loved, to take an art class. That decision provided the inspiration to explore taking her business management classes and focusing in a new direction. When she finally graduated, she had changed her opinion of her original plan which was to manage a restaurant. The intrinsic appeal was gone. Instead, she began a business plan that involved creating upcycled fashions from recycled items.

[READ QUOTE]

Zeke

"For awhile, I knew that graphic design wasn't where I wanted to end my career... I found myself still doing math problems for fun, and still studying my chemistry books because I enjoyed it."

Although Zeke was very successful as an art/design student, he also had a strong interest in math and science. Besides, he thought there were others in the design field who were either better, or more enthusiastic about the work than he was. In the end, he decided that he could make a bigger difference in a field that more people hated. He believes that the arts have provided him with many important transferable skills. He also believes he'll be able to capitalize on it by combining his interests into a new career that blends science and art/design in a chemical engineering degree.

[READ QUOTE]

It is interesting to note that Chickering & Reisser's 6th Vector "Developing Purpose" describes "the increasing ability to be intentional, to assess interests and options, to clarify goals, to make plans, and to persist despite obstacles."

CONCLUSIONS & RECOMMENDATIONS

"With a firm sense of self as an artist... tomorrow's graduates will not be bound to a single instrument," says Chickering & Reisser.

After spending many hours interviewing these seven students, it is apparent to me that the benefits of their arts studies are pivotal to their development as intentional, thoughtful, and productive human beings who have begun to shape a firm sense of purpose in their lives.

In terms of the original research questions, the results indicate that the perceptions of the study participants demonstrate a recognition of the value of the arts to their current or future educational or career development. It is especially important to note that we are talking about visual or performing arts that are practice-based and experiential as opposed to lecture-based. It is the act of creating art that seems to breed the elements of patience, persistence, engagement and many other transferable skills.

CONCLUSIONS & RECOMMENDATIONS

This study, and the larger body of literature, seems to indicate that when the arts are included, engagement, persistence, and critical thinking skills improve. The interconnections begin to reveal themselves as the student begins to demonstrate an increased understanding of complex systems… the world we live in, and how one element can impact another.

CONCLUSIONS & RECOMMENDATIONS

Most importantly, the arts have the potential to prepare them for the certainty of variability in the economy of the future, the transformation stage that is still yet to be written. By including the practice-based experiential arts courses as an option in general education, it would seem to me, based upon my humble research, to be a simple and viable addition to the educational toolbox to improve student success at community colleges. As innovation and creativity are highly sought-after in the new workforce, combining the Arts with STEM can truly build STEAM in the development of an effective 21st Century workforce.

Thank You!

Questions?

Thank you very much for your time!