Peter Barron
ISLT 9417: Action Research
Action Research Plan

Coloring and Student Focus: Can the use of coloring books help students engage a lesson?

SECTION 1, INTRODUCTION

Within the last year or so, a phenomenon of adults embracing coloring books has been come to light in national attention, both in the public media and to entrepreneurial retailers hoping to capitalize on it. Most of those who are interviewed about their use of coloring books cite their calming nature, to help relieve stress. Scholarly literature on this is still forth coming, but a number of articles support that using art to focus student's attention, be it through structured coloring books or freeform doodling, or even basic physical distraction, keeping their hands busy can yield positive results on helping students focus.

My own experience with teaching has always been in a very low technology environment. Most of the programs I've served in have been in those with an absolute minimum of technology, typically just my students and a chalkboard. I teach catholic religious studies for 7th grade in night classes, once a week and I've always been presented with a number of challenges in capturing and maintaining student attention. The class I teach is extraneous in nature; parents send their students to it for supplemental instruction in the Catholic faith beyond what they learn from parents directly, but ultimately it has little bearing on their day-to-day academic efforts and concerns. Since it takes place in the evening, in the 6:45-8:00 p.m. period, students arrive typically after their evening meal, and not always in the most focused of emotional states. After a full day of normal schooling, and subsequent homework, much less any normal familial and social concerns, they often come to me exhausted and in no mood to sit through what they perceive a superfluous class.

This is also assuming they arrive on time; many students effectively "stream in" – that is in their rush to get home, possibly do homework, eat dinner, and then go to another class and not run into traffic in all of that often makes them late, up to twenty minutes beyond our 6:45 p.m. start time. This paper is based on determining if the use of an art-based incentive would help students focus on the class and arrive on time.

AREA OF FOCUS STATEMENT

The purpose of this study is to determine how to best use an art incentive with coloring books to best prepare and encourage students to focus on the class ahead, and to help clear any residual stress from their daily lives.

RESEARCH QUESTIONS

1. What can be done to encourage students to focus on an extra-curricular class that carries no academic weight?
2. What can be done to encourage students to arrive in a timely fashion?
3. Would students' use of an art incentive assist in their ability to follow and retain data from a subsequent class?

REVIEW OF RELATED LITERATURE

The nature of coloring books as use as creative outputs in education and in the home environment has been debated over seventy years since Viktor Lowenfeld first published his "Creative Mental Growth," in 1947. Lowenfeld "colored" the scholarly field by coming strongly against coloring books despite their natural popularity and profitable business margin year after year. Other psychologists followed his example, coloring the perception of the coloring books in art education for years.

Thus it has been proved beyond any doubt that such imitative procedures as found in coloring and workbooks make the child dependent in his thinking (they do not give him the freedom to create what he wants); they make the child inflexible, because he has to follow what he has been given; they do not provide emotional relief, because

they give the child no opportunity to express his own experience; they do not even promote skills and discipline, because the child's urge for perfection grows out of his own desire for expression; and finally, they condition the child to adult concepts that he cannot produce alone and that therefore frustrate his own creative ambitions. (Color Books Harmful. pg. 244, 1964)

Lowenfeld's core argument, that most of the psychological community adopted, is that coloring books stifle creativity, forcing children to stay within prescribed lines of where they can and can't color, because they encourage unnecessary conformance. While he does provide some shaky evidence for this attitude, this opinion of this favored children's activity has pervaded the educational research industry, to where many followed suit behind his argument.

These claims have come under considerable question, much less over the prevailing opinion of parents worldwide who have continued to purchase millions upon millions of coloring books for their children. "Many observers of children, including Lowenfeld, acknowledge that most children love to color. Could it be that one of the reasons coloring books are so popular is that they do provide emotional relief for children" (King, pg. 40, 1991).

It's not that Lowenfeld doesn't have a valid point in his claim that students can be reluctant to work on art projects when they feel and fear that they will be criticized, but one wonders given that the attempt at art in the first place can aid in their development and growth, or as King wonders, simple emotional relief. The effect on this on art education has "produced an overwhelming timidity on the part of art educations and elementary teachers toward reasonable teaching practices in the elementary classroom," (Youngblood, pg. 36, 1982).

Physical activity before or even during a lesson has been shown to possible aid in attention aids. This phenomenon is both "common sense" as few schools go without a recess

period, especially for younger students, and researched as well, a study conducted in Georgia found that the use of stress-balls during lessons allowed students with and without attention disorders or habitual distracting behaviors to focus on the task ahead. Commenting on setting up the study, the author noted, "Although classroom teachers cannot often allow vigorous exercise during instruction, manipulating a stress ball may function as an escape valve for the need to move" (Stalvey and Brasell, pg. 8, 2006)

While not similar to stress balls in that they may be used during class, the use of coloring as a physical activity may fulfill this need as well. At least one research study has compared the benefits of coloring similar to the same mental benefits of meditation, or art therapy.

"Although coloring therapy does not encompass all elements of either art therapy or meditation, it may help encourage a state of deep engagement brought about through artistic expression and thus may help to decrease people's experiences of anxiety" (Curry and Kasser, pg. 81, 2005).

Curry and Kasser's study looked at the coloring of "mandalas" or intricate patterns on paper that involve geometric shapes among undergraduate college students for approximately twenty minutes. Student anxiety was measured using premade surveys before and after coloring had taken place and groups were given a mandala, a plaid design or a blank piece of paper for freeform design. Their results were clear that coloring reduced anxiety among adults; and I believe it will work with younger students.

DESCRIPTION OF INTERVENTION OR INNOVATION

I will be gathering information to support my claim that a use of art incentives in class will assist in students to arrive on time, help relieve stress from their day, and focus on the class to come.

SECTION II

DATA COLLECTION

Primarily, I will be looking to collect data in a primary qualitative method, with quantitative assistance. In my experience as a religion teacher, the night classes I teach do not and cannot use traditional testing methods to verify academic progress and achievement, as we are at best considered extra-curricular by parents and other related parties. In order to make sure my students have progressed to a sufficient level, I often rely on simple questions, nonverbal cues and the overall "mood" of a class to know if the lesson I'm pursuing is having the desired learning effect.

For the purposes of this study, I will be examining two major factors. First, arrival time and student attitude when they first enter the class. While we begin promptly at 6:45 on Wednesdays, a number of students are late and often arrive effectively "out of breath" as they were rushed there by their parents. While I do not want parents to violate any traffic laws in getting their children to my class, I have sought a way to encourage on-time attendance, so I will be writing down approximate arrival times for each student. Second, the other major data collection tool that is based more on quantitative methods is a simple, multiple-choice quiz with four questions at the end of the class period, based on the lesson given. This will also include a short feedback section on student opinion on the lesson of the day involved. My example of such a quiz, found in Appendix D, is actually based on TED Talks found on the technology and learning website ted.org; the reason for this is that they are examples of much of the same lecture and presentation style that I myself look to employ.

While arrival times can depend on a number of factors, I have heard from more than one parent that the issue may depend on student speed in getting ready for class, and I do believe that should the idea of coloring pan out, this will positively affect arrival time. Keeping general notes of student participation and moods during class over the weeks I will be doing this study may also yield changes in student emotional state and how well they are following the lecture, backed up by the qualitative data

of the multiple choice quiz. I will also actively question students if they think the coloring period employed before the lecture is a valued tool.

DATA SOURCES

- Teacher Notes - I intend to record two critical pieces of information when my class runs every Wednesday. First, the arrival time of students over a number of weeks as quantitative data, as well as the overall mood and participation rate of students involved.

- Surveys and Quizzes – Students will be given a short, multiple-choice quiz to test data retention and solicited feedback on how they thought the lesson went as well as anything they would

DATA ANALYSIS PLANS

Analyzing the data will take time to see results one way or the other. Ultimately, I hope be seeing patterns that indicate the students having greater data retention rates coupled with students arriving on time or even early as in contrast to up to fifteen minutes late. The post-lecture quizzes/surveys will yield direct data on how many questions are answered correctly and if lesson is being conveyed well. This will also include general qualitative feedback from students about what they would change about the approach. My general observations on how well the class is going will also be important; I will be looking for correlation between my perception of the class, and the students over all percentage of correct answers on the surveys.

Arrival time as a variable will be best shown if a student has a history of showing up late, or sometimes if at all; if their attendance starts showing more positive results of being present and on time or even early, I should be able to correlate that as a positive effect with the other variables.

RELATED DETAILS

1. Students will be allowed to color for five minutes upon arrival to class, if they arrive within the first ten minutes. They will have free reign to choose between either existing coloring book

pages culled from commonly commercially available coloring books, or freeform on a blank piece of paper.

2. Parents will be informed of the coloring incentive by a note going home with students and email communique; they will be offered to allow their students to opt out as it were. I have consulted Administrators on the matter, both informally with in person conversations and formally with written permission, and have given their blessing.

SECTION III –

1. Both the coordinator for my program and supportive parents would be involved; the coordinator has already expressed interest in what my data yields and if it could be applied to the other classes in the program. Parents have also offered to help purchase raw materials for the initiative in order to aid the effort.

2. Parents will be informed of the coloring incentive by a note going home with students and email communique; they will be offered to allow their students to opt out as it were. Administrators were approached and have been consulted on the matter, both informally with in person conversations and formally with written permission, and have given their blessing.

3. Given we only have a partial year remaining for the normal academic term, I intend to start a reduced from this with my current class immediately as well to get partial results in the remaining classes left. However, I also want to extend this program to my class that starts in the fall, to judge it over a full year's timespan. Data would be collected over at least from a period of two weeks into the year until nearly the very end in the spring; analyzing would take place shortly thereafter. Or in other words,

   a. Month 1 (August) – Month 7 (March): Collect Data

   b. Month 8 (April): Analyze Data

      c.   Month 9 (May): Interpret Data.

4. After data has been collected, I intend to spend the month of June, and if needed, July, with the coordinator and any other interested teachers in developing recommended actions on how not just to address my class, but all classes in the program.

      a.   Month 10-11: Develop Recommended Actions

5. Once recommended actions have been developed, we would need to have the coordinator and the pastor of the parish give their blessing as well, before any actions could be implemented. While both parties should be relatively open to any new recommended actions, there is the possibility another teacher may not want to adopt the actions if they become procedure, as we are normally afforded a tremendous amount of freedom in our own classrooms. .

6. Should coloring incentives become the norm, continued testing of student data retention would be necessary by all participating teachers, as well as documentation of improvement on student attendance and participation. This information could be gathered through similar quizzes and methods to what I have prepared, as well as informal surveys of classes and their attendance records.

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APPENDIX A: LITERATURE MATRIX

Author	Year	Variables Considered in the Study		
		Student Focus	Data Retention	Student Feedback
Curry, Nancy Kasser, Tim	2005	X	X	X
King, Irvin	1991	X		X
Stalvey, Sheryl Brasell, Heather	2006	X	X	X
Youngbood, Michael	1982	X	X	
Color Books Harmful	1964	X	X	

APPENDIX B: DATA MATRIX

Research Questions	Data Source		
What can be done to encourage students to focus on an extra-curricular class that carries no academic weight?	Student Quiz/Survey	Informal Observations	
What can be done to encourage students to arrive in a timely fashion?		Informal Observations	Arrival Time
Would students' use of an art incentive assist in their ability to follow and retain data from a subsequent class?	Student Quiz/Survey	Informal Observations	

AREA OF FOCUS STATEMENT

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RESEARCH QUESTIONS

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Data Collection Technique	Data Analysis Strategy		
Record of Arrival Time	Record each student arrival time; Plot arrival times over time, to see marked improvement or otherwise	Involve parent input on arrival time and methods to improve; Determine if arrival time correlates with student mood and scores	Determine if arrival time improves with modifications
Observation	Observe and record general mood, participation levels and quality of learning of students at arrival, pre and post coloring.	Examine common moods and student participation levels for common themes or patterns	Determine if themes indicate correlation exists between quiz scores and student participation levels, adjust as needed
Quiz	Calculate student percentages of correct answers; plot quiz percentage over time to determine patterns	Determine if patterns indicate correlations exist between quiz scores reflect students who take advantage of coloring incentive	
Student Feedback	Determine student feedback on lesson style and coloring initiative	Discuss possible alternations to class structure and style as needed.	

APPENDIX D:

Coloring Attention and Participation Survey

Video 1:

https://www.ted.com/talks/david_hoffman_shares_his_sputnik_mania

1. What was the launch date of sputnik?
    a. September 11th, 2001
    b. October 4th, 1957
    c. December 7th, 1945
2. What was the name of the day Sputnik became public and thought was a weapon of war?
    a. Red Monday
    b. Black Wednesday
    c. Rocket Day
3. What are the other two of the three "shocks" that the American public suffered?
    a. Black Monday and The Gas Crisis
    b. Bay of Pigs invasion and The Gulf War
    c. Pearl Harbor and September 11th, 2001
4. What technologies did Sputnik lead to in the US because of that panic?
    a. ARPAnet (The Internet) and NASA
    b. Electric Car and Air Conditioning
    c. Atomic Weapons and Lasers

Video 2:

https://www.ted.com/talks/carolyn_porco_could_a_saturn_moon_harbor_life

1. What Spacecraft was mentioned as part of the discovery?
    a. Apollo 11
    b. Cassini
    c. Sojourner
2. What year did scientists first notice the jets? When was our most recent?
    a. 2005/2008
    b. 2001/2005
    c. 1959/1965
3. Which planet was mentioned? What moon?
    a. Jupiter, Europa
    b. Saturn, Enceladus
    c. Pluton, Charon
4. What were some of the chemicals mentioned discovered from those Jets?
    a. Crude Oil, Nitrogen
    b. Benzene, Methane, Salt Water
    c. Sodium, Ketamine, Argon

Video 3:

1. What was one of the two applications the speaker invented?
    a. Bustin Jieber
    b. Chess with Friends
    c. PodCruncher
    d. Rhombus
    e. Earth Fortune
    f. Ringtones
2. What software did apple release to assist in App Development
    a. Apple Development Kit
    b. iOS App Kit
    c. Visual Basic Kit
3. What is the fee to put apps on the App Store?
    a. Free
    b. $10
    c. $99
4. What was the name of the IPad program available to schools?
    a. Apple Education Program
    b. iPad Pilot Program
    c. iPad in Schools Program