Developing Sociopolitical Consciousness through Lorraine Hansberry's *A Raisin in the Sun*: An Interdisciplinary Project

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Abstract

This article describes an interdisciplinary project that combined the subject matters of mathematics and English/language arts while adapting the storyline of *A Raisin in the Sun* (Hansberry, 1984). The key teaching objectives, in this project, were to progress students toward mastery of linear and exponential functions, show them a connection between literacy and mathematics, and educate them on the struggles of Black Americans. We position the mathematics portion of the project within a fitting framework for social justice teaching, discuss its emergence and implementation, and offer teacher and student reflections for future replication and refinement.

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Mathematics may be used as an analytical tool to study injustices in order to persuade individuals to see other points of view as well as realize their own position (Gutstein, 2006). Teachers for social justice pose questions to students about relevant issues to analyze the society around them, while students learn to understand, formulate, and address their own questions to better understand conditions in their lives and the sociopolitical subtleties in the world (e.g., Gutiérrez, 2013; Gutstein, 2003, 2006; Leonard, 2008; Leonard, Napp, & Adeleke, 2009; Tate, 1995). Instead of teaching problem solving techniques, teachers can support a more liberating practice by implementing a problem-posing pedagogy (Freire, 2000). This bottom-up approach to teaching affords students the opportunity to not be passive recipients but active agents in their learning.

In this paper, we describe how the classic play, *A Raisin in the Sun* (Hansberry, 1984), was used as the context for an interdisciplinary mathematics and language arts project to expose notable injustices toward people of color, specifically Black Americans. Adapting Gutstein's (2006) framework of teaching mathematics for social justice, we describe the components of the project, align the project to the social justice framework, and discuss the goals and outcomes of the project through teacher and student reflections.

A Social Justice Framework for Teaching Mathematics

According to Gutstein (2006), there are two overarching aims for teachers who want to use social justice pedagogy: (a) to develop a political awareness within learners to help them realize their position in society and history, and (b) to motivate individuals to action. Gutstein developed a social justice framework to teach mathematics with two sets of pedagogical goals, one set on social justice and the other set on mathematics. Here we focus on the latter set of goals

related to mathematics and later discuss how Mr. Ferguson's project aligns with each of these goals. In particular, the mathematics' pedagogical goals we will focus on are: (a) reading the world with mathematics, (b) writing the world with mathematics, and (c) developing positive cultural and social identities (Gutstein, 2006).

First, *reading the world with mathematics* may be interpreted as the understanding of the cultural, historical, and sociopolitical conditions in one's life. This goal describes the use of mathematics to identify and analyze power relations, inequitable resource allocations, and unequal opportunities among social groups to comprehend blatant discrimination as it relates to societal differences (Gutstein, 2003). Moreover, it means to mathematize phenomena in one's life locally and globally while making connections between them. Second, *writing the world with mathematics* is changing the world through the use of mathematics. It is a developmental process where individuals begin to view themselves as people who can take action and make change. Third, *developing positive cultural and social identities* stands on the premise that students sacrifice constructs they value such as culture, language, and community in order to thrive in the dominant culture, despite deep roots in these constructs. Students are culturally competent when they are able to maintain personal cultural integrity while being academically successful (Cooper, Denner, & Lopez, 1999; Ladson-Billings, 1995). Through a sociopolitical perspective, educators and/or learners may be challenged with how they describe themselves, as new experiences influence their views and perceptions. Teachers may play the role as "identity workers" by recognizing when a student is not doing what is expected in the classroom and, in turn, taking action to support them (Gutiérrez, 2013). When students feel inferior, inadequate, or do not have a sense of belonging in the local culture, understanding teachers are empathetic

and discover ways to support students through their negotiation in the classroom.

We have described Gutstein's (2006) framework to situate the work of Mr. Ferguson, a high school mathematics teacher, as a social justice mathematics project. Next we will set the stage for and discuss the implementation of the project.

The Interdisciplinary Project: Its Emergence and Implementation

Mr. Ferguson teaches in a southern rural town at an early college high school. Since his arrival, there have been attempts at 'interdisciplinary' projects to incorporate social justice (e.g., the Model United Nations debate). Although effective in its own right as a speech and debate competition to discuss social justice related issues, there was no real evidence of mathematics application. Subsequently, Mr. Ferguson decided to create his own interdisciplinary project for his Math 1 course[1] in order to motivate students and expose them to the historical realities of people of color.

Mr. Ferguson, a novice teacher at the time of the project's implementation, collaborated with a language arts teacher at his school to make mathematics more interesting for their mutual students. Mr. Ferguson expressed his thoughts about linking social justice with mathematics: "This is something that I've been wanting to bring into mathematics class since I started teaching, because these kids don't know… Hopefully it'll open some eyes." When asked to elaborate on what he meant by the kids not knowing, he replied, "I gave a Black history trivia quiz in class two weeks ago, and the Black kids were clueless…they are not aware of all the contributors, inventors, activists, and leaders that helped form this nation. Some thought the Underground Railroad was an actual railroad!" Realizing the lack of knowledge his Black students had about their history, Mr. Ferguson, a Black male, seized the opportunity to be innovative in his teaching approach to help all of his students become more aware and critically conscious. Hence the

interdisciplinary project *A Raisin in the Sun* was developed.

A Raisin in the Sun is about a poor Black family in 1950s Chicago. The father of the family just died, and the story begins with the family awaiting the insurance check in the mail. Each of the family members expressed their dreams on how they would like to spend the money. Mr. Ferguson had three key motives for choosing *A Raisin in the Sun*. First, he wanted to challenge himself to create an interdisciplinary unit with English/ Language Arts 1 since this course and Math 1, are courses where freshman students tend to struggle the most. Many students experience limited success with mathematics, reading comprehension and grammar in middle school and have difficulty with the higher expectations of the high school's early college environment. Second, Mr. Ferguson was familiar with the play and knew it would be a great opportunity to integrate the Black experience with mathematics applications. Moreover, Mr. Ferguson, an activist, believes that school textbooks will never tell the whole story and wanted to reveal an untold story to his students. Lastly, Mr. Ferguson wanted the students to understand the importance of identity, Black history, and the way students of color value themselves.

The implementation of this project was intended to achieve the following goals: (a) progress students toward mastery of linear and exponential functions, (b) show students a connection between literacy and mathematics, (c) educate students on the civil rights struggle of Black Americans, (d) use technology for research, application, and presentation, (e) allow students to reflect on their own career goals and the cost to achieve them, and (f) integrate Fine Arts in the classroom. All of Mr. Ferguson's Math 1 students were repeating the course for the first or second time. Subsequently, he decided to implement this project as a more innovative approach to teaching mathematics. There were 25 students altogether, 16 in the first block and nine in the second block. For the first block, there were four males and twelve females: 4 Black, 4 White, 6 Hispanic, and 2 Native American. The

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[1] Math 1 is part one of an integrated mathematics sequence replacing the traditional, more focused Algebra 1 course.

second block was all female: 5 Black, 1 White, 2 Hispanic, and 1 Native American.

The entire project took approximately two weeks of 90-minute class blocks; instructional days in this two-week window typically consisted of 30 minutes of lecture followed by 60 minutes of independent and/or collaborative work. For scaffolding purposes, the project included four parts: (a) graphing a symbol from the story, (b) "Ten Years from Now" goal setting activity, (c) recommendation report, and (d) presentation. We describe each part below in more detail.

Part I: Graphing a Symbol from the Story

The mathematics in this project includes modeling with linear and exponential functions, solving multi-step problems, appropriately choosing and interpreting units, rates of change, and growth and decay. Mr. Ferguson created groups of three to four where each student chose a character upon which to research and reflect (see Appendix A). Each group represented the main characters of the Younger family (i.e., Mama, Bennie, Ruth, and, in some cases, Walter). The purpose of this grouping was to compare and contrast the characters' hardships in the 1950s to those of their own. In Mr. Ferguson's first block, the female students were able to choose any female character to analyze during the project; all males played the role of Walter by default. Students chose the character they related to the most after reading the book in Language Arts 1 class. In the second block of all females, Mr. Ferguson slightly altered the story where they had to experience raising a family without a male figure in the household.

Once the students read and summarized the play's plot, they identified different symbols from the story. Students drew and analyzed the most significant symbol on graph paper (see Figure 1). The students wrote equations for eight lines within the symbol: two horizontal lines, two vertical lines, and two positively sloped lines, and two negatively sloped lines. The work below illustrates the house Mama bought as one student's significant symbol in the play, and an equation for one of the lines within the symbol.
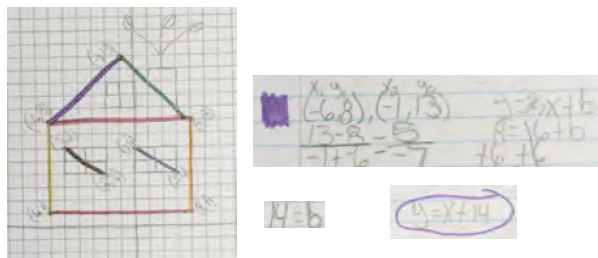

Figure 1. Student's graphed symbol and work to find slope for part of the roof.

Although symbolism relates more to the language arts portion of the project, Mr. Ferguson saw this as an opportunity to incorporate mathematics through graphing and writing equations of lines within the symbol that was significant and meaningful to the student.

Part II. Ten Years from Now

For the second part of the project, students were asked to think about their future and write down goals they hope to achieve within 10 years (see Appendix B). The students compared their aspirations to those of the Younger family. Once students had time to externalize their life goals, they were instructed to "do the math" for the Youngers' dreams before preparing a recommendation report. While considering the Youngers' dreams and obstacles of poverty, racism, and sexism, the students had to use mathematics skills (i.e., linear and exponential growth models) to make sense of different scenarios in *A Raisin in the Sun*. The following are some examples of mathematical and literary analyses investigated by students.

Each member of the Younger family came with his or her own set of problems to solve, and students conducted research to determine their respective character's salary. Taking the character of Mama for instance, students had to find the salary for a seamstress in the 1950s considering her location and race. They determined whether Mama would be able to cover the monthly mortgage payments by herself, or if she needed help from the family. Other factors also considered were how to distribute income using the linear growth model such as expenses for transportation, groceries, and clothes.

In the play, the Younger family lived in a cramped apartment and Mama used some of the insurance money with a bank loan to cover the down payment for a house. The rest of the money was divided between her children, for their dreams. It was Mama's dream to own a house. Mr. Ferguson's students had to think about the policies of the lending institutions of the time that advantaged whites and discriminated against Blacks. They discovered that Mama had a very high interest rate. While considering this obstacle, students calculated the total interest after 30 years, added it to the cost of the house, and determined the monthly payment of the house using the exponential growth model. Through this model, students learned that the price for Mama's house almost doubles over time because of the high interest rate. Students expressed their opinions in classroom conversations and written reflections.

Part III. Recommendation Report

Toward the end of the project, students wrote a recommendation report to the Younger family with a convincing mathematically-based argument for whose dreams should be financed (see Appendix C). There were five key components of the report: (a) overview expressing the need for the recommendation report and financial concerns of the family, (b) cost of dreams, (c) income of each family member, (d) conclusion, and (e) recommendation.

The overview of the recommendation report explained the purpose and financial needs of the family, which did not include the cost of dreams. Next, the students outlined the cost of the dreams for all family members explaining why particular costs were included. The students constructed a table organizing the costs of each character's dreams. Students then explained why the incomes of all family members should be considered, and constructed a table showing this information. Mr. Ferguson modeled how to set up the tables and other parts of the project. The final section of the report included an informed recommendation for what the Younger family should finance with the accompanying budget justifications and explanations of how the students decided to prioritize the family finances.

Part IV. Presentation

Each student received an individual and group grade based on a presentation rubric. As part of their group presentations, each group had to introduce their character, explain the motivation for their dreams, and make evident their dreams and obstacles. The students had to present in front of the class as a group with slides using a presentation tool. During the end-of-course reflections, some students mentioned that this project helped with speaking in front of others, making sense of the mathematics, and constructing convincing arguments.

Framing the Project in Social Justice

As discussed earlier, Gutstein (2006) identified three mathematics-related pedagogical goals in his social justice framework: (a) to read the world with mathematics, (b) to write the world with mathematics, and (c) to develop positive cultural and social identities. Here we situate the mathematics portion of Mr. Ferguson's project within the framework to categorize it as an instance of social justice mathematics pedagogy.

Goal 1: Reading the World with Mathematics

Mr. Ferguson's students analyzed the characters in the play to understand their struggles with race, gender, and class. Further, all points of view of the story were carried out within each group to understand the family as a collective unit. Mr. Ferguson wanted to expose *all* students—not just students of color—to life in the 1950s for Black people. During the project, students were able to mathematize the characters' dreams while considering the social injustices of the time era. All students confirmed in their presentations that the project was an "eye-opening" experience. Not only did they use mathematics to discover injustices, they also became aware of the cost of their own dreams and aspirations. Mr. Ferguson's students were able to critique the different components of the play and make connections to their own lives.

Goal 2: Writing the World with Mathematics

Mr. Ferguson's students wrote a persuasive data-based letter to convince the Younger family whose dream should be pursued with the insurance money (see Appendix C).

Character	Amount needed to finance and reason	Interest Rate for the money	Total amount paid over how many years and at what cost per month?
Lena Younger	$23,500	5%	Monthly: $282.13 10 Years: $101,565.64

Table 1 A portion of the Cost of Dream Table in Appendix C

From the Cost of Dreams section in Appendix C, Table 1 above illustrates the cost of Mama's dream (to buy a house), the interest rate, monthly payments, and the total amount paid and the duration of time it would take to pay off the house. All of the Younger family's dreams are illustrated in this manner as a way to compare all of their dreams so that the students can decide whose dream is worth pursuing in the recommendation report. In their end-of-year reflections, some students discussed how this project resonated with them as they learned the power of mathematics through the lens of the play. One student reflected, "First, it helps me understand the life of African Americans during the 1950s. Secondly, it showed how to easily know how much I'm going to spend for financial needs by making a formula and solving it. And above all, the project was useful to me because I developed my math skills." This opportunity to reflect gave students time to ask questions about why they were learning some concepts over others, who benefitted from learning it, and how identities were constructed as a result. The mathematics concepts that took priority in this project were discussed in Part 1 above. Students may be viewed as change agents in their learning through the lens of the characters in the play; they realized the power relations, unequal opportunities, and discrimination (Gutstein, 2003). They were also made aware of some parallels in current society, which makes these issues more relevant to them.

Goal 3: Developing Positive Cultural and Social Identities

As positive cultural and social identities develop, individuals relax their culture to better cope within the dominant culture by negotiating their culture with or enculturating to the dominant one (Gutstein, 2006). As mentioned earlier, the students completed an assignment addressing where they see themselves in 10 years (see Appendix B). Similar to the Younger family, the students were denied their civil rights and their desires from the 'Ten Years from Now' assignment to simulate their dreams being deferred as they position themselves in the play and become empathetic with the characters. For example, if there is something that the students addressed in their 'Ten Years from Now' assignment that was not allowed in the 1950s, Mr. Ferguson explained how they would be restricted from doing certain activities or achieving goals that they had. They also discussed racially charged current events and compared them to the play. One particular event that was a hot topic at the time of this project's implementation was the 2014 riot that took place in Ferguson, Missouri where a young Black adolescent Michael Brown was shot by a White police officer. Although this affected students of color more, Mr. Ferguson found it imperative to discuss with all students regardless of race. Some students talked about how the events affected them and some had personal experiences to share about racism. Comparing the dreams of the characters to those expressed in the 'Ten Years from Now' assignment put things into perspective for the students helping them to understand how their lives were similar to the characters in the play.

In their reflections, some students were overwhelmed with the issues learned in the story, but they appeared to have enjoyed the learning experience. One student stated, "I learned how to invest money in financial need and…discrimination…[,] when to spend, how to spend, and how much money to invest." In light of this project, students realized their career goals and how powerful mathematics was in their goal setting and understanding the world around them. Students commented on the excitement they had with participating in different projects and interactive activities. When asked what stood out in the class and why it was important, one student responded, "Learning math matters because numbers are in just about everything such as…business, photography, money…I need to know banking and finance so I would be able to keep my own business   financially

stable…photography is all about angles, which involves numbers and degrees." This student later expressed that we all should value the privilege of education, because everyone does not get the opportunity.

Conclusion

This interdisciplinary project was an attempt to bring forth a "differential consciousness" which decomposes one's self and sparks contradiction in beliefs by a new awareness, as we are constantly creating ourselves in history (Gutiérrez, 2013). Students are not typically being afforded the opportunity to construct themselves within the mathematics they are taught, as teachers have to rush to move through many mathematics concepts for them to be ready for mandated standardized tests. Students need to be able to make connections across the curriculum and real life. Otherwise, they may form ideologies that block them from being able to contextualize or apply mathematics to realistic situations and continue to ask the ubiquitous question "When are we ever going to use this?"

Mr. Ferguson was pleased with the outcome of the project. However, he felt that he could have given more tailored feedback as opposed to whole group discussion. It was his hope that his students got a "reality check," and that they would share this experience with their families and peers. Further, Mr. Ferguson received positive feedback from fellow staff members and current students, while some of his former students were disappointed that they did not get this opportunity to do the project.

Teachers should try providing students with a more holistic approach to learning about the world around them and the interplay among subjects through interdisciplinary projects (Scheer, Noweski, & Meinol, 2012). This project steps away from traditional assessment and assignments for the sake of the mandated tests and gives students time to reflect and evaluate their developing identities through a mathematical and social justice lens. By positioning themselves in a different culture and historical era, investigating individual's dreams and systemic obstacles such as institutional racism, and making connections to their current lives and future dreams these students are developing a critical consciousness—seeing that mathematics matters and

can play an important role in their lives and the struggle for social justice and equity.

References

Cooper, C. R., Denner, J., & Lopez, E. M. (1999). Cultural brokers: Helping Latino children on pathways toward success. *Future of Children, 9*(2), 51-57. doi:10.2307/1602705

Freire, P. (2000). *Pedagogy of the oppressed.* New York, NY: Bloomsbury Publishing.

Gutiérrez, R. (2013). The sociopolitical turn in mathematics education. *Journal for Research in Mathematics Education, 44*(1), 37–68.

Gutstein, E. (2003). Teaching and learning mathematics for social justice in an urban, Latino school. *Journal for Research in Mathematics Education*, 37-73.

Gutstein, E. (2006). *Reading and writing the world with mathematics: Toward a pedagogy for social justice.* New York, NY: Taylor and Francis.

Hansberry, L. (1984). *Lorraine Hansberry's A Raisin in the Sun.* New York, NY: Samuel French, Inc.

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American educational research journal, 32*(3), 465-491.

Leonard, J. (2008). *Culturally specific pedagogy in the mathematics classroom: Strategies for teachers and students.* New York, NY: Routledge.

Leonard, J., Napp, C., & Adeleke, S. (2009). The complexities of culturally relevant pedagogy: A case study of two secondary mathematics teachers and their ESOL students. *The High School Journal, 93*(1), 3-22. The University of North Carolina Press. Retrieved May 30, 2014, from Project MUSE database.

Scheer, A., Noweski, C., & Meinol, C. (2012). Transforming constructivist learning into action: Design thinking in education. *Design and Technology Education: An International Journal, 17*(3), 8-19.

Tate, W. F. (1995). Returning to the root: A culturally relevant approach to mathematics pedagogy. *Theory into Practice, 34*(3), 166- 173.

Appendix A

Part I. Character Overview and Graphing a Symbol from *A Raisin in the Sun*

Math I Standards:

CCSS.MATH.CONTENT.HSN.Q.A.1
Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

CCSS.MATH.CONTENT.HSF.LE.A.1
Distinguish between situations that can be modeled with linear functions and with exponential functions.

CCSS.MATH.CONTENT.HSF.LE.A.1.A
Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

CCSS.MATH.CONTENT.HSF.LE.A.1.B
Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

CCSS.MATH.CONTENT.HSF.LE.A.1.C
Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

Purpose: Students will build competency in the above standards through analysis of the lives of the following characters from the award-winning theatrical *A Raisin in the Sun*:

1. **Lena Younger ("Mama")** - Walter and Beneatha's mother. The matriarch of the family, Mama, is religious, moral, and maternal. She wants to use her husband's insurance money as a down payment on a house with a backyard to fulfill her dream for her family to move up in the world.
2. **Beneatha Younger ("Bennie")** - Mama's daughter and Walter's sister. Beneatha is an intellectual. Twenty years old, she attends college and is better educated than the rest of the Younger family. Some of her personal beliefs and views have distanced her from conservative Mama. She dreams of being a doctor and struggles to determine her identity as a well-educated Black woman.
3. **Ruth Younger** - Walter's wife and Travis's mother. Ruth takes care of the Youngers' small apartment. Her marriage to Walter has problems, but she hopes to rekindle their love. She is about thirty, but her weariness makes her seem older. Constantly fighting poverty and domestic troubles, she continues to be an emotionally strong woman. Her almost pessimistic pragmatism helps her to survive.
4. **Walter Lee Younger** - The protagonist of the play. Walter is a dreamer. He wants to be rich and devises plans to acquire wealth with his friends, particularly Willy Harris. When the play opens, he wants to invest his father's insurance money in a new liquor store venture. He spends the rest of the play endlessly preoccupied with discovering a quick solution to his family's various problems.

Students will break up into groups of 3 and 4, where each group operated as the main characters of the Younger family listed above. Each student will be assigned a character to research and reflect upon. The goal is to compare and contrast the hardships each character had to face in the 1950s to those the student's will face in present day.

Part I: 25% of total project grade

Introduction to the project
- Read and discuss the summary of the plot of "A Raisin in the Sun"
- Discuss the symbols from the story; followed by students drawing a representation of the symbol that means the most to them on a blank piece of paper. Once your symbol is drawn and outlined with dark ink, it needs to be transferred to a piece of graph paper
- Create a group copy of this document and name and share with group. Each group member is responsible for copying the original rubric and grading him or herself using the rubric and for evaluating group member's work on the rubric. Color-code your comments to each other.
- Each group member should upload a picture of his or her graph for analysis.

- Each group member should write a short reflective paragraph under his or her rubric explaining why you scored yourself as such and comment on strengths and areas of improvement.

***Equation Sheet*:** The sheet of paper that shows all your work and final equations for the 8 lines you are finding the equations of; this paper needs to be neat and organized (*It may be a good idea to color code your equations.)

Find the following…
1. Write an equation for two horizontal lines ($y=\#$).
2. Write an equation for two vertical lines ($x=\#$).
3. Write an equation for two lines showing a positive slope. (Rising in Quadrant I)
4. Write an equation for two lines showing a negative slope. (Rising in Quadrant II)

When you are finding the equation of the lines with positive and negative slope you are going to identify two points on each line (do one at a time). Then find the slope between the two points. Then write it in slope-intercept form. Place your equations (8 total) and your work for positive/negative slope lines on a separate sheet of paper (notebook, graph, or computer paper). Provide some way for the equation to be easily connected to the line on your graph animal.

Due Date: Friday, February 27, 2015 at the ***beginning*** of your class period. Ten points will be taken off for each day it is late. Use the rubric to help guide you along
If you have questions, see Mr. Ferguson ASAP!

Appendix B

Part II. Ten Years from Now

Part II. 25 Points of Total Project Grade

This portion of the project is where students begin thinking about their lives and use math to solve equations and consider if the women of the Younger family are able to finance their dreams and support themselves as a family.

A. Your Dreams

Take about fifteen minutes to discuss your future with your group members
Question each other's life choices
Are they being realistic or just fantasizing?
Are you a wishful thinker or a go-getter?

B. Do the Math for the Younger's Dreams and Prepare a Recommendation Report

Consider the desires of each member of the Younger family and the internal and external conflicts they face as they try to make their dreams a reality despite obstacles such as poverty, racism, and sexism in the 1950s. Simultaneously, we are using the following math skills to solve the problems below:

Exponential growth model A $= P(1 + r)t$ **A = amount of interest gained over time** **P = principal or initial amount** **r = interest rate/100** **t = time in years**	**Linear growth model** **C= (m - b)x** **C = cash flow after bills are paid** **m = monthly income** **x = number of months** **b = monthly expenses (transportation, groceries, clothes, and utilities) *This information needs to be researched from a reliable source**

Your groups will be operating as modern Younger families. Each of you will compare your life choices to a character (Walter, Ruth, Mama, and Bennie) from the play *A Raisin in the Sun*.

1. **Lena Younger ("Mama")** - Walter and Beneatha's mother. The matriarch of the family, Mama is religious, moral, and maternal. She wants to use her husband's insurance money as a down payment on a house with a backyard to fulfill her dream for her family to move up in the world.

Situation: Beginning in the 1930s, the American Institute of Real Estate Appraisers began to use a ranking system that assessed risk based on the racial composition of the community. The English, Germans, Scotch, Irish, and Scandinavians ranked at the top of the list while "Negroes" and "Mexicans" ranked at the bottom of the list. Lending institutions and the federal government employed underwriting guidelines that favored racially White, homogenous neighborhoods and led to the creation of a separate and unequal lending and financial system.

Occupation	Salary in 1950s	Dreams	Obstacles
Seamstress	?????(You need to research and provide a valid source)	House (Price the Younger family has to pay: $27,000; Actual cost:$14,000)	After making a down payment of $3500, Lena discovers that she must pay $27,000 to purchase the home, though it is only worth $14,000. As if things could not get any worse Lena has accepted 30 year mortgage financing at 5% interest.

- Using the exponential growth model, calculate the total interest after 30 years and add it to the cost of the house. You then need to determine the amount of the monthly payment if the house is to be paid off in 30 years.
- Once you obtain the average salary of seamstress in the 1950s, determine how Lena will be able to contribute to the monthly mortgage payments. Will she be able to cover it by herself or will she need some assistance?

2. **Beneatha Younger ("Bennie")** - Mama's daughter and Walter's sister. Beneatha is an intellectual. Twenty years old, she attends college and is better educated than the rest of the Younger family. Some of her personal beliefs and views have distanced her from conservative Mama. She dreams of being a doctor and struggles to determine her identity as a well-educated black woman.

Situation: To an eighteen-year-old, the expense of financing a loan four years down the road is an abstract concept; but attending the school of their dreams is a concept that is very real. In the 1950s, it was not uncommon for people to put themselves through college. Students could wait tables at night or get a summer job to pay their tuition, room and board. Some African Americans did have opportunities to become professionals--doctors, lawyers, and teachers. Those who wanted to get advanced degrees were held back by a separate-but-unequal school system. In Tennessee, this meant going to black-only colleges or going out-of-state. Even after desegregation of public universities, getting admitted was sometimes difficult for blacks. The local University of Tennessee Medical School effectively kept them out by excessive costs and poor recruiting efforts.

Occupation	Salary in 1950s	Dreams	Obstacles
Doctor	?????(You need to research and provide a valid source)	To be successful physician	Bennie struggles to maintain secure position at the black owned hospitals after being rejected by every white regulated hospital in the area. While seeking employment, her student loans continue to grow at a rate of 7% a year.

- Using the exponential growth model, calculate the total interest after 10 years and add it to the $30,000(cost of medical school in the 1950s). You then need to determine the amount of the monthly payment if the loan is to be paid off in 10 years.
- Once you obtain the average salary of doctor in the 1950s, divide by three. Since most of the black people in the area do not have health insurance, Bennie has to settle for a third of the salary a doctor at a white hospital would make. Determine if Bennie will be able to contribute to the monthly mortgage payments. If yes, how much would be a reasonable contribution?

3. Ruth Younger - Walter's wife and Travis's mother. Ruth takes care of the Youngers' small apartment. Her marriage to Walter has problems, but she hopes to rekindle their love. She is about thirty, but her weariness makes her seem older. Constantly fighting poverty and domestic troubles, she continues to be an emotionally strong woman. Her almost pessimistic pragmatism helps her to survive.

Situation: America has the best dressed poverty the world has ever known it is much easier in the United States to be decently dressed than it is to be decently housed, fed or doctored. At precisely that moment in history, where for the first time a people have the material ability to end poverty, they lack the will to do so. They cannot see, they cannot act, and the consciences of the well-off are the victims of affluence.

Occupation	Salary in 1950s	Dreams	Obstacles
Seamstress	?????(You need to research and provide a valid source).	She wants to have a healthy baby.	During that time period, the death rate was abnormally high for black babies in comparison to other ethnic groups. Ruth wants to ensure her baby's delivery is perfect but she does not have health insurance. She decides to take out small loan to cover medical expenses. Ruth managed to get a loan with an interest rate of 50% per year.

- Using the exponential growth model, calculate the total interest after 5 years and add it to the total of the loan. You then need to determine the amount of the monthly payment if the loan is to be paid off in 5 years.
- Once you obtain the average salary of seamstress in the 1950s, determine how much Ruth will be able to contribute to the monthly mortgage payments. Will she be able to cover it by herself or will she need some assistance?

4. **Walter Lee Younger** - The protagonist of the play. Walter is a dreamer. He wants to be rich and devises plans to acquire wealth with his friends, particularly Willy Harris. When the play opens, he wants to invest his father's insurance money in a

new liquor store venture. He spends the rest of the play endlessly preoccupied with discovering a quick solution to his family's various problems.

Situation: In the 1950s, a Black person's annual income was around $3,828 but a White person's was $7,057. By 1956 a Black person's income was around $4,768 and a White's income was $9,060. As you can see from these figures, because of segregation and the various laws around Black and White people, White people led a much higher standard of living compared to Black people. This was one of the factors that affected the difference in being able to vote or not. Michael Harrington, an American academic and political activist, strongly attacked the unequal distribution of America's wealth and the failure of the government to make sure that everyone had proper medical care when they needed it:

Occupation	Salary in 1950s	Dreams	Obstacles
Chauffeur Liquor store owner Walter will be able to generate two incomes	?????(You need to research and provide a valid source) This salary must consider the cost per year to raise two children.	He wants to invest in a liquor store. The cost of Walter's dream is $75,000. The initial investment for the store is $30,000; $10,000 is needed from three investors (Walter and two other friends).	After several failed attempts, Walter finally gets approved for a small business loan with a 5% interest rate.

- Using the exponential growth model, calculate the total interest after 10 years and add it to the total of the loan. You then need to determine the amount of the monthly payment if the loan is to be paid off in 10 years.
- Once you obtain the average salary of a chauffeur in the 1950s, determine how much Walter will be able to contribute to the monthly mortgage payments. Will he be able to cover it by himself or will he need some assistance?

Appendix C

Student Sample of the Recommendation Report[1]

March 20, 2015

The Youngers Family
111 Main St
City, USA 12345

ATTN: Walter, Beneatha, Lena, and Ruth Younger

Dear Younger Family,

　　We decided to provide the Younger family with a report that recommends whose dreams can be financed. Racial discrimination was common in the 1950s; African Americans struggled to survive based on the color of their skin. The Younger family had many financial needs such as poverty, racial discrimination, and most importantly the need to fulfill their own dreams. The American Institute of Real Estate Appraisers was a government association that established ranking system based on their race. Whites were labeled at the top of the list while African Americans were ranked at the bottom. Since the racial discrimination was taking place in the 1950s, people of color had been charged way more money than White people on real estate. In fact, Black people who bought a house back then were more likely to pay twice as much for the house than White people. Less than two percent of the Federal Housing Association (FHA) loans were made to non-White home buyers in the 1950s. The FHA was the first federal agency to openly counsel and support segregation, which furthered the notion of racial discrimination of the time.

Financial Needs
The Younger family spent a lot for financial needs. Here is a list of the types of food they would buy and the prices.
For this time period, this was a lot of money since their salary was super low each month:

What??	Prices
Sugar	$0.85 for 10 pounds
Vitamin D Milk	$0.84 per gallon
Ground Coffee	$0.70 per pound
Bacon	$0.50 per pound
Eggs	$0.24 per dozen,
Fresh Baked Bread	$0.17 per loaf
Electric Bill	$11.00 per month
Gasoline	$0.18 per gallon

Cost of Dreams
　　Lena Younger has the dream to buy a house with a yard to garden. In order to fulfill her dream she needs to know the amount she needs to finance, the monthly mortgage payments, and the total amount that will be paid over a number of years. Ruth Younger's dream is to have her second baby in a hospital where the baby can get medical attention to have a better chance of survival. She needs $500 in order to finance the cost of hospital cost. It is very necessary to calculate the cost for hospital care, because her interest rate is 50%. In order to find out the yearly and monthly cost over time you have to calculate

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[1] For clarity purposes, student sample minimally edited for missing punctuation.

calculating the years and divide that by 12 since there are 12 months in a year. Beneatha's dream is to become a doctor and the amount of money that she needs is $5,265. It is important to calculate this cost because she needs to know how much money she will need for medical school.

Incomes

Character	Amount needed to financed and reason	Interest Rate for the money	Total amount paid over how many years and at what cost per month?
Lena Younger	$23,500	5%	Monthly: $282.13 30 Years: $101,565.64
Bennie Younger	$30,000	17%	Monthly: $491.80 10 years: 491.78
Walter Lee	$75,000	5%	Monthly: $1,018.00 10 Years: $122,167.00
Ruth Younger	$500	50%	Monthly: $316.40 5 years: $63.28

We must consider the incomes of the household family members because it helps them know how much everybody needs to contribute, so all dreams can become possible. Lena Younger who works as a seamstress makes $267.50 monthly with an interest rate of 5%; however, she needs a total amount of $23,500. In order to pay the mortgage on the house, each family member needs to contribute equally. Failure to do so can result in foreclosure, unless they keep up with the mortgage payments.

A second item to consider is Beneatha's medical school expenses. Mama must pay off the house in the hopes of Beneatha graduating from medical school, getting a job as a doctor, and coming back to help Mama with the house.

It is necessary to also consider the cost of birthing a child in the hospital because it shows that the cost of getting medical help after the birth of a newborn baby is costly, and since Ruth is a Black woman it is going to cost twice as much as it would for a White woman.

Character	Occupation	Approximate monthly income in the 1950s
Lena Younger (Mama)	Seamstress	$267.50
Beneatha Younger	Medical School	$491.80
Ruth Younger	Seamstress	$267.50
Walter Lee	Chauffeur	$192.40
Total:	None	$1,217.20

Conclusion and Recommendation

According to our report, we found out that it is not possible to finance all dreams so we calculated the total cost of all dreams and gave us a total of $1217.20. Based on the calculation we recommend the Younger family should finance the payment of the house. Firstly, if the Younger finished the payment of the house, then they do not have to depend on other people for shelter. Secondly, the liquor store will waste a total amount of $75,000. In a business, the Younger family would spend a lot more money than usual, because they would spend more on the license, reconstruction of the business, rent, and items such as tables, chairs and alcohol. In addition, Walter would have difficulties attending both jobs. Beneatha would spend $491.80 to finish medical school and spend more money on books and supplies. However, we provided a solution that will provide her a scholarship. Ruth who is pregnant needs to provide care for her children such as clothes, diapers, and food. However, the family would have difficulties in raising another child so we provided a solution of getting Ruth on the Women, Infants, and Children (WIC) program. This is an organization to help out people who struggle economically to provide children with needs such as food, water, clothes, and diapers. The payment of the house may be expensive but useful to allow the family to stay together.