

This or that: Autonomy and engagement in second grade instruction

Sheray McLeod

St. Mary's College of Maryland

Abstract: This study addresses if autonomy has an effect on engagement, and autonomy preferences in second grade instruction after implementation of both a reading intervention and writing intervention. Research supports that providing individuals with choice can increase motivation to perform a task. I implemented a four week intervention where students were given autonomy in reading or writing during ELA, and social studies instruction. A mixed- methods approach was used in order to collect data on how often each student shows engagement behaviors, and to gain insight on how students feel about having the opportunity to choose their own autonomy. Data collected showed that there were no significant correlations between autonomy and engagement.

Introduction

A consistent struggle for educators is to make sure students are engaging with the content in a meaningful way; in order to have students engage in the content material, they must feel a connection between themselves and the lesson. By using aspects of self determination theory (SDT), educators can provide and plan for different ways for students to engage and interact with the content. There are three components to SDT: autonomy, competence, and relatedness (Ryan & Deci, 2017). These three components support the student's basic psychological needs for independence, and are critically important for all aspects of individual and societal functioning (Conesa et al., 2022; Legault, 2017; Ryan & Deci, 2017).

While there are numerous studies that focus on reading motivation, there are few studies that focus on writing motivation, and even less on the type of autonomy students enjoy. Research on autonomy motivation in literacy has focused on choice in reading material, strategies teachers use for promoting autonomous reading motivation, and classroom culture that has a positive look on reading (De Naeghel et al., 2014; Tegmark et al., 2022). Existing research on autonomous motivation in English Language Arts (ELA) instruction has been primarily drawn from qualitative data (i.e., interviews and surveys from both teacher and student; De Smedt et al., 2020; Tegmark et al., 2022). However, a missing part of the current research is examining what type of choice students enjoy the most, what groups of students enjoy certain choices, and how students pick their reading

material/response type. This insight can help teachers plan assignments that are both engaging, and provide opportunities for students to choose. Using a quantitative approach to the data collection can help quantify the amount and type of motivation a student has in order to complete the needed work (De Smedt et al., 2020).

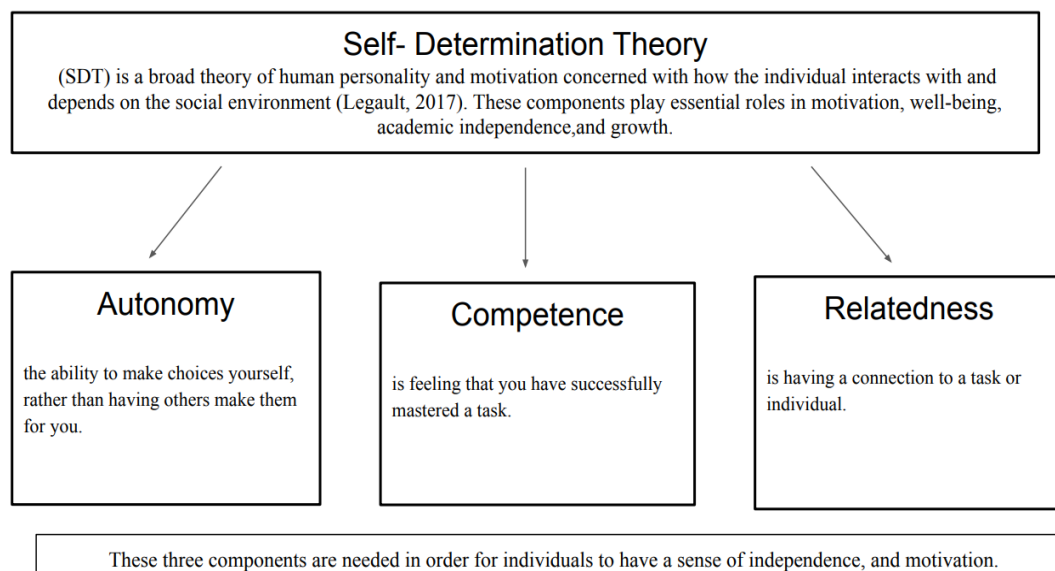
The present study will assist teachers and researchers with promoting student engagement by further exploring and understanding how students are motivated, what types of choices increase student motivation, and planning instruction that incorporates more autonomous motivation. In the next section, I will describe in greater detail a) the existing literature on this topic, b) how I intend to apply the research to practice, and c) my intervention and the data I collected.

Theoretical Framework

Self-Determination Theory. Self-determination theory (SDT) is a broad theory of human personality and motivation concerned with how the individual interacts with and depends on the social environment (Legault, 2017). As mentioned above, SDT consists of three main components: autonomy, competence, and relatedness. These components play essential roles in motivation, well-being, academic independence, and growth. Table 1 provides a breakdown and description of each component.

Table 1:

Self- Determination Theory (Deci & Ryan, 1985; Legault, 2017)



Theories in Writing Instruction

There is an abundant amount of research focusing on reading instruction and engagement, however there is little research on writing instruction. This section will focus on theories that can be seen in K-12 writing instruction. Theories in writing instruction tend to focus on two main areas: mechanics or creativity and sociability. The theories related to writing instruction are: cognitive process theory, sociocultural theory, social cognitive theory, and ecological theory. The cognitive process theory was one of the first theories to explain writing instruction. In the cognitive process theory, writing instruction focuses on the complex system of mental processes required for writing (Hodges, 2017). Writing instruction that uses the cognitive process theory focuses on the writing process (i.e. brainstorming, drafting, and editing). Sociocultural theory, social cognitive theory, and ecological theory of writing instruction focuses on motivation, social influence and self-understanding (Hodges, 2017). In the classroom sociocultural theory and social cognition theory looks more socially active compared to cognitive process theory, which is more independent and internal. Educators that use sociocultural or social cognitive theory are active participants in the writing process, and place more emphasis on writing motivation by doing and interacting with written language in multiple contexts. For this current research, a focus of social cognitive theory and ecological theory; a theory that also looks at the relationships students bring to the classroom, will be used for the writing intervention.

Literature review

The large majority of my project focuses on self-determination theory. In the next section I will go into more detail on the other aspects of my project. In this section I will discuss engagement and motivation in the classroom.

Engagement or Motivation

Teachers and other educators are able to understand the importance of having students motivated and engaged during the lesson. However, these terms are often confused with each other. While engagement and motivation are similar in function, they are very different in behavior. Motivation is the desire or willingness to do something, or behave in a particular way (Beymer & Thomson, 2015; Ntoumanis et al., 2021). There are two types of motivation: intrinsic and extrinsic. Intrinsic motivation is driven by internal reward (i.e. self-improvement; Beymer & Thomson, 2015; Lai, 2011). Extrinsic motivation is driven by external rewards (i.e. money; Beymer & Thomson, 2015; Lai, 2011). In education, intrinsic motivation is more desired because it results in better educational and life outcomes (Lai, 2011). Engagement is the observable action, and can show evidence of motivation ([To Increase Student Engagement, Focus on Motivation | Edutopia](#)). In order to be engaged, students have to also be motivated, however students who successfully and

meaningfully engage with content can later become more internally motivated (Lai, 2011). In the classroom, educators can motivate students by providing them with opportunities to engage in the content in different, but meaningful ways (De Naeghel et al. 2014; Lai, 2011).

The primary focus of the current mixed-method study is to examine how autonomy influences student engagement in writing and reading instruction. The study aims to address the four questions and two sub questions:

1. Does autonomy yield more engagement in second grade ELA classwork?
 - a. Does having autonomy of what to read relate to engagement in specific course materials, as measured by students' scores on an engagement checklist? If so, how?
 - b. Does having autonomy of what to write relate to engagement in specific course materials, as measured by students' scores on an engagement checklist? If so, how?
2. Is there a difference between engagement after autonomy in writing and/or autonomy of reading?
3. What type of autonomy do students enjoy?

Based on prior literature, I hypothesize that 1) students who are given more autonomy in instruction will be more engaged in assigned work. I believe this because prior research shows that providing students with choice increases engagement and motivation, and that students view the assignment as more important ([How to Give Students More Choice | Edutopia](#); Katz & Assor, 2007). 2) Students will enjoy autonomous reading more compared to autonomy in writing. In education there tends to be more focus on reading instruction compared to writing instruction, because students are more exposed to reading instruction they may feel more competent in reading assignments. Many students around the country also tend to struggle more with writing compared to reading, so when given a choice to do reading or writing students will choose reading (Ying et al., 2021; Hodges, 2017). Results from this study can also be useful in understanding autonomous motivation in school aged children.

Intervention

The intervention used in this study was implemented for four weeks, during the students ELA and Social Studies block. Week 0/1: will consist of baseline data collection; no autonomy will be present, and we will use the current curriculum as it was designed (i.e. students are assigned a reading and told what to respond to and how). Week 2 will be the reading intervention. Students will be given a topic and will have to search for and select a book about the topic, and respond to the reading (questions will be provided by the teacher). Possible topics for the reading autonomy included Black History month,

landforms, or technology. The reading prompts focused on the main topic, and details of the self-selected text. Week 3 will be the writing intervention. During this week students were given a writing prompt that focused on technology. Students were asked to select a piece of technology and write an opinion paragraph. To complete this assignment students had to complete different aspects of the writing process (i.e. brainstorming, plan, draft, edit, revise, final). During week 4, students will have the opportunity to choose between autonomy in reading or writing.

Methods

Design

A mixed methods approach was used to collect data for this study. On one hand qualitative data was collected to gain better understanding and insight into the types of autonomy students prefer and possible reasons as to why they prefer the autonomy type. A verbal student check-in, and a self reporting measure was completed to create an understanding of this. Data was also collected on the type of engage and disengage behaviors displayed during the intervention. Quantitative data was collected through the behavioral checklist. For this checklist data was collected for individual students and the whole class; using count to keep track of students engage or disengage behaviors.

Measures

Behavioral checklist. Student engagement and disengagement behaviors were collected using a *Behavioral Checklist*. This checklist consisted of a T-chart that had the students names and categories label Engage behaviors and Disengage behaviors. As the students are working the teacher or other school staff kept tallies on who showed engaged or disengaged behaviors as well as the type of engaged and disengaged behaviors.

Self-reporting measure. These measures contain questions that have the student selected their preferred autonomy and to provide reasons as to why they have that preference (Appendix A). The questionnaire (Appendix B) also has questions that ask the students to share if they liked the topic related to the autonomy type.

Open questions group interview questions (student check ins). A student check-in (Appendix C) was used to gain insight into the thoughts of the students' views on autonomy preferences, and projects during the intervention. The questions focused on the general enjoyment of different projects or assignments and how much effort was put towards the different intervention tasks. This measure was completed with a small group of students (e.g. 3-5 students), in order to reduce conformity bias within the group.

Participants

This study was conducted in a second grade classroom in a rural mid-Atlantic elementary school. The school is considered a Title 1 school due to the school meeting the requirement of servicing students that qualify for free or reduced meals. A convenience sample was used because of time constraints, and ease of access. The sample consisted of second grade students ($N= 18$) between the ages of seven and eight years old. There were 10 female students and eight male students in the class. The sample also consisted of several students who have individualized education plans (IEPs; $N= 3$), behavioral intervention plans (BIPs; $N= 2$), and have significant gaps in academic knowledge ($N= 4$).

Data sources

Table 2:

Research questions, data sources, and methodology

Research Questions	Data source 1	Data source 2	Data source 3	Methodology
Does autonomy yield more engagement in second grade ELA classwork?	Behavioral Checklist	Observation (during lesson)		Chi-squared
Is there a difference between engagement after autonomy in writing and/or autonomy of reading	Behavioral Checklist	Observation (during lesson)		Paired Sample T-test
What type of autonomy do students enjoy?	Observation (free time)	Student check-ins (group)	Self-reporting (Likert scale)	Quantitative data (Discrete data)

Data collection

To increase the validity, and reliability of the data, multiple sources of data collection was used as well as qualitative and qualitative data collection was used (DeSmedt et al.,

2020). Students will complete self-reporting measures, and a student check-in group interview. The researcher and other school staff will complete a behavior and engagement checklist for individual students and the whole class. Table 2 shows the ways that methodologies align with the study's research questions and data sources.

Data Analysis

A mixed-methods approach was used including quantitative and qualitative collection and analyses. Multiple sources of data were used in data collection to ensure greater validity (see Table 2). For the data analysis: verbal responses will be recorded in written format, student questionnaires will also be used in the data analysis. Participants' responses regarding the reason behind their choices were placed in categories by recurrent themes, relationships, and ideas presented. T-tests and chi squared were used to answer research questions 1 and 2. Qualitative analysis and observation notes were used to answer research questions 3 and 4. Students will complete self-reporting measures (Appendix A and B), and a small group student check-in (Appendix C). The researcher and other school staff also completed a behavior and engagement checklist for individual students and the whole class. Participants' responses regarding the reason behind their choices were placed in categories by recurrent themes, relationships, and ideas presented.

Validity Concerns

Validity concerns were addressed through triangulation of data. Each question conclusion will be informed based on multiple sources of data. For this current research five data sources will be used. A behavioral checklist and engagement measure will be used for the whole class and individual students. Student check-ins will be completed in small groups consisting of 3-5 students during weeks two through four of the intervention. Observations for the whole group will be done at two different points of time when students will have the choice to engage in reading or free writing. The reason for this is because I want to see if students are choosing different autonomy activities (i.e. reading or writing) during different time periods (i.e. morning and afternoon). The self reporting measure will be completed during weeks two through four of the intervention.

Results

The current study examines the question of how autonomy influences engagement in second grade ELA classrooms. For this study, a mixed- methods approach was used in order to collect data on how often each student shows engagement behaviors, and to gain insight on how students feel about having the opportunity to choose their own autonomy. I

hypothesized that 1) students who are given more autonomy in instruction will be more engaged in assigned work, and 2) students will enjoy autonomous reading more compared to autonomy in writing. For hypothesis 1) students who are given more autonomy in instruction will be more engaged in assigned work; I can not accept this hypothesis because there is no clear distinction between engagement behaviors before and after autonomy for reading and writing. A chi square test was used to analyze the research question: Does autonomy yield more engagement in second grade ELA classwork? Based on the results of the chi-squared: $X^2 (1, n= 18)= 9.127, p= 0.05$, there was no significant effect of autonomy on engagement behaviors. The results are summarized in Table 1. A t- test was used to analyze the research question: Is there a difference between engagement after autonomy in writing and/or autonomy of reading? Based on the results of the t test: $t(17)= .2994, p= 0.05$, autonomy type did not have a significant effect on level of engagement.

Table 3:

Autonomy and Engagement

	Reading	Writing
Engagement	115 118.56	143 84.20
Disengagement	61 57.44	64 67.59

$$X^2 (1, n= 18)= 9.127, p= 0.05$$

For hypothesis 2) students will enjoy autonomous reading more compared to autonomy in writing. I accept this hypothesis. The results showed that students preferred reading autonomy more compared to writing autonomy. The results are summarized in Figure 1.

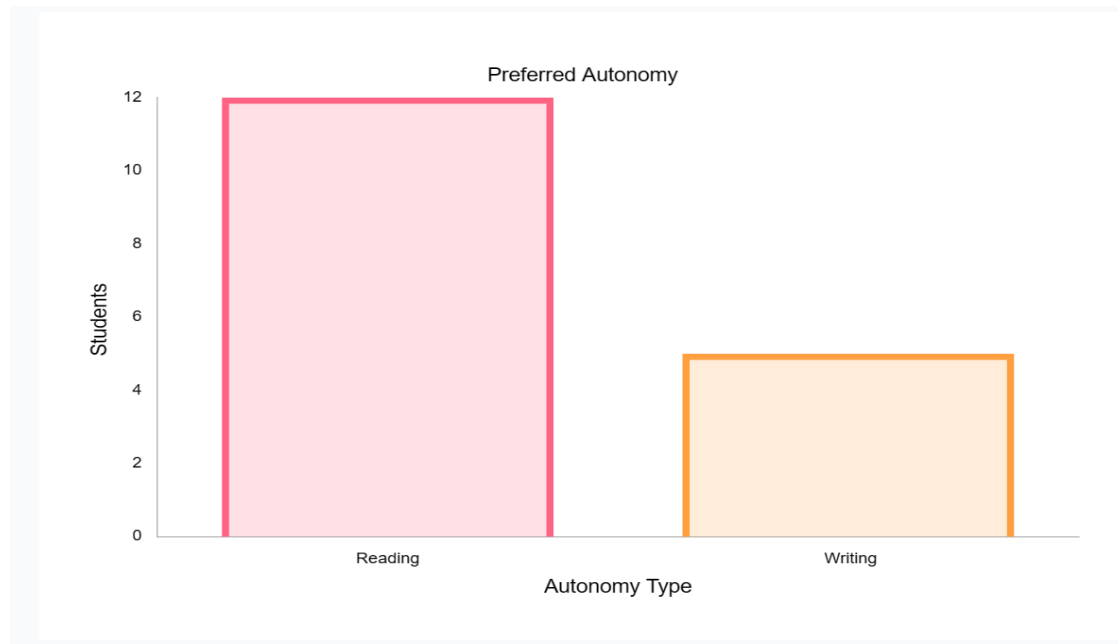


Figure 1. Students and Preferred Autonomy.

I was also interested in the reasons behind the students' preferred autonomy. Student response to the question: Why did you choose the reading/writing assignment? The majority of the responses were related to the general topic of the assignment. For reading autonomy, the students seem to really enjoy reading about Black History, landforms, and technology. One student mentioned enjoying doing research on different types of landforms: "I really like Pebblego, we got to learn about landforms". For writing autonomy, the students mainly focused on enjoying different aspects of the writing process (i.e. brainstorming and editing). Another student mentioned that she really likes writing because it makes her feel smart. Students' reasons behind their preferred autonomy can be summarized into three categories; skill based, enjoyment or confidence, and topic interest. Skill Based, this category has responses related to understanding the concepts and being able to apply certain skills towards reading or writing. One student noted that they had a preference for reading, because they were "really good at spelling". For the enjoyment/confidence category, students mainly responded with really liking reading or writing. A student responded that they prefer reading because they like it more than writing. The final category was based on students' shared responses related to liking the general topic or focus. These responses mainly focused on enjoying the general topic of the autonomous reading or writing assignment. Table 3 summarizes the breakdown of student responses as to why they preferred certain autonomy.

Table 4:

Reasons for Preferences

Reasons for Preference	Reading	Writing
Skill Based	1	1
Enjoyment/Confidence	4	5
Topic Interest	2	1

Conclusions and implications

The general goal of this study was to examine how autonomy influences students' engagement in academic work, if applicable with this knowledge educators can better understand the importance of providing students with autonomy in school work, and student autonomy preference for school age children. As noted earlier, two challenges for educators are maintaining and increasing student engagement within the content that is being taught to them and providing students with a sense of control in the learning process of reading and writing (Conesa et al., 2022; De Naeghel et al., 2014). The current study showed no difference in reading and writing engagement after autonomy was provided, however through observation the students seemed more focused on the academic task they were working on. I also concluded that students prefer reading autonomy more compared to writing autonomy. There are a few possible reasons for this: 1) writing was too difficult for students and 2) the topic of autonomous writing was not interesting enough to the student.

Based on the intervention in this study, I can conclude that the majority of students enjoy having a sense of control and choice in their academic work, and that providing them with autonomy, results in more enjoyment of school work. Based on prior research, when students enjoy the work they are doing they are more engaged with the material and motivated to complete the assignment (Katz & Assor, 2007; Tegmark et al., 2022; [To Increase Student Engagement, Focus on Motivation | Edutopia](#)). Overall the students seemed to generally enjoy having autonomy in reading or writing.

Limitations

The study had a few limitations that I would like to make note of. The first limitation is the sample size of the study. There were 18 ($N=18$) total participants. This was due to only one second grade class being willing to and able to participate in the intervention. Based on other autonomy in education studies, we should have had a sample upwards of 150 students (De Smedt et al., 2020; Tegmark et al., 2022). Working with a sample size that was too small, I had difficulty making conclusions based on the data, and generalizing because of the unique nature of the sample. The sample consisted of 18 second grade students who had significant gaps in academic knowledge. This affects the generalizability

of the results because this was not a typical second grade class. The second limitation is that not every student answered the surveys in its entirety. This also affected the generalizability of the data because the data was incomplete.

The third limitation was a factor of time. Due to the nature of the program, there were time constraints and data collection challenges. It is important to note that not all the data needed for this study (i.e. student check-ins) was collected to the original degree needed to make all conclusions needed for this study.

Implications

The intervention used in this study did not yield any conclusive results on whether autonomy promotes engagement. However, thought observation students seemed to enjoy and be more engaged with the material when they were given a choice in what they were able to learn and how. Teachers and other educators can use this study to create an understanding of student choice and engagement. Future research should focus on using the aspects of SDT in education and achievement, as well as on motivation and autonomy.

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Appendix A

Student Number: _____

Choice Type: _____

List three reasons about why you chose the book:

1)

2)

3)

Complete after the assignment

Did you feel engaged with the activity? Yes or No

This topic match my general interest?

1	2	3	4	5
Highly Disagree	Disagree	Neutral	Agree	Highly Agree

Did you like the choice you made? Yes or No

Why? Explain.

Appendix B

Self-Reporting Questionnaire (Engagement and Motivation)

For each of the following statements, please indicate how much you agree by giving each a rating.

1	2	3	4	5	6	7
Not true			somewhat true			Very true

- 1) I found this project to be enjoyable. ____
- 2) I was bored while working on this project. ____
- 3) I put a lot of effort into this project. ____
- 4) This project did not hold my attention. ____
- 5) I would like to do projects similar to this one in the future. ____
- 6) I had fun while working on this project. ____
- 7) I did not try my hardest while working on this project. ____
- 8) This project was very interesting to me. ____
- 9) I tried very hard while working on this project. ____

Appendix C

Open Ended Questions for Student Check-in

- 1) Did you enjoy working on this week's assignments? Why or why not?
- 2) Did you feel that this assignment was relevant to your interests? Explain.
- 3) Were any of the assignments difficult to complete? Why or why not?
- 4) Explain the amount of effort that you put into this project. What motivated you to put effort into this project?
- 5) Did you have fun completing this project? What was fun? What was not?
- 6) Do you think it is a good idea to allow students to make choices about their academic work as you did with this project? Why or why not?
- 7) Did you ever feel lost or unsure of what to do? Explain.
- 8) Please share any other thoughts or feelings that you may have concerning these projects?