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Introduction

Abstract

Goals of the Freedom Schools (FS) camp included enhancing students' reading motivation and preventing reading losses during the summer vacation by providing learning opportunities during that time. In particular, the program was intended to support students in low-income families and who identify as racial minorities. Using a curriculum developed by the Children's Defense Fund (CDF), the FS is designed to help students understand social justice and diversity issues and encourages students to make a difference in themselves, their families, their communities, and the world.

The research goal was to explain the observed differences and similarities in the students' quantitative outcomes: students' prosocial efficacy, reading attitudes, and reading skill. We collected the quantitative data (i.e., surveys and test) first and then collected qualitative data (i.e., interviews) to help elaborate on the quantitative data. Purposeful case sampling—focused on explaining the differences between the students who showed improvement or not in their prosocial efficacy and reading attitudes and skill—was applied to select students' interviews for qualitative analysis.

The qualitative data obtained from interviews of students were used to explore the potential causes of different students' camp outcomes. The quantitative data results could be explained according to the main emerging themes of 1) reading experiences and perspectives on the FS, 2) relationships with peers and teachers, and 3) beliefs in their ability to make a difference. For data analysis, we used two different software tools of and 'NVivo12' and 'R studio'. Open/axial coding in NVivo provided details about how their emotional experiences regarding books they read and their relationships in FS could be related to the students' different learning outcomes. Sentiment analysis in R studio shows general patterns in the interviewees' emotional responses about the camp.

Research Questions

The purpose of the study was to explore the students three different outcomes: 1) prosocial efficacy (PE), 2) reading attitudes (RA), and reading skills (RS). To explain the students' differences, we viewed the data through the lens self-determination theory (SDT; Deci & Ryan, 2000). SDT explains human basic needs with three components (i.e., autonomy, relatedness, and competence).

- How does students' autonomy/internal motivation in Freedom Schools activities explain their changes at the end of the camp?
- How does students' relatedness/perception of relationships in the classroom explain their changes at the end of the camp?
- How does students' competence/belief in making differences explain their changes at the end of the camp?

Method

Research Design

For this study, an explanatory sequential mixed methods design was used. Quantitative and qualitative data were used to develop case studies (Stake, 1995) answering each research question.

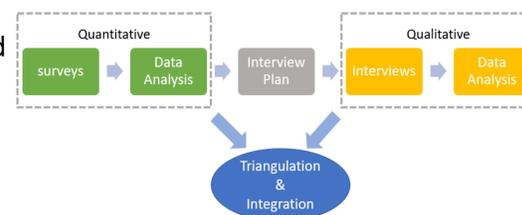


Figure 1. Explanatory sequential mixed method design (Wu, 2011).

We used the following pre post assessments: 1) Prosocial Efficacy Survey (PES; Roehrig et al., 2017) to assess changes in beliefs about acting in ways that support community building, and 2) Elementary Reading Attitudes Survey (ERAS; McKenna & Kear, 1990) to assess changes in attitudes about reading. The change in reading levels of students was assessed with the Basic Reading Inventory (BRI; Johns, 2012). Scholar interview data were also collected.

Participants

Of 52 campers participating in research at the 2017 FS in Northcentral Florida who had complete data, we selected eight students' cases who showed different patterns of change on at least 2/3 of the quantitative results. We chose four positive change cases and four negative change cases from students' quantitative outcomes. We compared quantitative and qualitative data from participants who were matched by FS level and instructor.

Paring	Condition	Positive change case	Negative change case
1	Level 2 (grades 3-5) Class A	Psn21 PE -, RA +, RS +	Nsc21 PE +, RA -, RS -
2	Level 2 (grades 3-5) Class A	Psv22 PE +, RA-, RS +	Nsa22 PE-, RA+, RS -
3	Level 2 (grades 3-5) Class B	Pvd23 PE +, RA +, RS +	Nva23 PE +, RA -, RS -
4	Level 1 (grades preK-2) Class C	Pjc14 PE +, RA +, RS +	Njj14 PE -, RA -, RS+

Data Analysis

Using 'NVivo,' we did open/axial coding of interviews, allowing us to identify three primary themes that helped us specify our final research questions. We also used the 'tidytext' package in 'R studio', which provides sentiment analysis as a text mining method and contains several sentiment words in the words-based dataset. To make a meaningful, sentimental chunk (with 10±1 words), we applied the 'tidytext' analysis method to interviewee's comments. The sentimental graphs produced by 'R studio' helped us to synthesize and explore the emotional tendencies of the participants' experiences in FS.

Results

Findings

First, the students in a positive group showed greater autonomy/internal motivation related to the IRC, it might be linked to their higher grade at the final reading test. On the other hand, the negative group students showed lower autonomy/internal motivation, additionally some of them showed Amotivation tendency. Next, the students in a positive group commented about helpful communication and positive relationship with people. However, in the student in a negative group, some of them underwent serious conflicts such as bullying or laughing at low reading performance. Lastly, the students in a positive group showed a strong competence about the social actions like that they can make a difference in their family, community, and the world compared with the negative change group.

We also found different sentimental range patterns between the positive and negative cases. The students in a positive group used more positive emotion words about the camps' reading curriculum and their social experiences than the opposite group. The graphs provide general information on the amount and valence of students' perspectives about the camp.

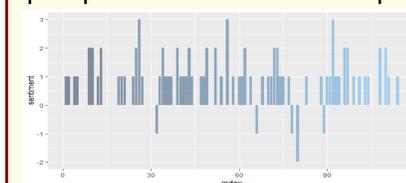


Figure 2. Sentimental analysis graph of Psn21.

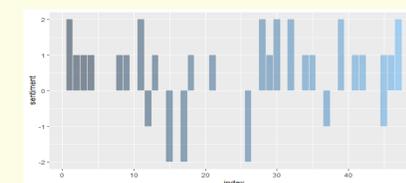


Figure 3. Sentimental analysis graph of Nsc21.

Discussion

Our results are consistent with components of SDT as explanations for differences in students' camp outcomes. The students with low reading skill tended to frequently feel more negative emotions, and those feelings were related to their low autonomy/internal motivation for reading. Low autonomous motivation could be linked with low participation in class and poor relationship with peers. Teachers can play an important role in providing support for students' autonomy, competence, and relatedness, as negative experiences in one area may precipitate problems in other areas and impede students' learning opportunities.

Key References

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