



College Socialization Through Fiction: A Q Methodology Study on the Anticipatory Socialization of First-Generation Students

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Abstract

This study aims to understand how prospective first-generation college students develop their perceptions of college engagement before college attendance through secondary sources. A group of high school students were assigned to read a college-themed mystery novel and rank a series of statements relating to college engagement before and after the activity. Viewpoints of college engagement shifted from a solely academic focus to a more holistic focus after reading the novel. Enjoyment and relatability of the novel were major factors contributing to the shift in viewpoints. Findings suggest that college preparation programs need to expand beyond academics to include social and emotional components through engaging mediums.

Keywords Socialization · Anticipatory socialization · Edutainment · First-generation student · Reference group · College transition

Students entering higher education for the first time often notice stark differences from their primary and secondary education. Some differences include increased independence (Ruberman, 2014), new financial obligations (Shaeffer, 2014), increased academic challenges (Shewach et al., 2019), and differences in identity formation and self-presentation (Yang et al., 2017). For those living in residential campuses, homesickness and adjusting to roommates are additional new experiences encountered in the higher education environment (Utter & DeAngelo, 2015). Another distinction of colleges and universities is the increased opportunities for student involvement (Astin, 1984; Webber et al., 2013). The multitude of clubs and organizations and frequency of student events provide students several options for involvement and engagement in the campus inside and outside of the classroom.

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The formation and evolution of attitudes and behaviors to adapt to these new college experiences can be attributed to the socialization of the college student (Weidman et al., 2014). Socialization occurs throughout the entire experience of a college student's career, from the days leading up to college, to the years in college, to life after college.

Socialization can be a challenging process for any student, especially for first-generation college students. A first-generation college student is the first in their family to attend college and typically comes from a family where biological parents did not complete a four-year college degree (Center for First Generation Student Success, 2017). Studies on first-generation students find these students are more likely to come from low-income families, have weaker cognitive skills, have lower degree aspirations, and be less involved with peers and teachers in high school (Terenzini et al., 1996). They are also less likely to be academically prepared for college (Atherton, 2014). This is due to the lack of resources to which first-generation students have access compared to other students (Spiegler, 2018).

Before facing the experiential challenges of college socialization, first-generation students face an additional disadvantage related to anticipatory college socialization. Anticipatory socialization is a type of socialization that occurs before a student experiences college first-hand. Through anticipatory socialization, prospective college students utilize various secondary sources to help them understand college before actually attending college. These sources can include parents, teachers, counselors, brochures, and college-themed media. The goal of this study was to better understand how prospective first-generation college students specifically utilized college-themed media as a source for anticipatory college socialization.

Literature Review

This literature review will define the different types of socialization as it applies to college students, followed by an introduction to reference group theory as it applies to anticipatory socialization. The section will end with the research question used to guide the current study.

Defining Socialization

The transition to college can prove challenging to students, especially those who do not have the resources to assist them with the transition. In Weidman's (1989) model of undergraduate socialization, socialization was defined as "learning the appropriate modes of social behavior and/or role enactment within the groups in which membership is desired" (p. 294). Socialization involves the relationship between an individual and a group and its change over a period of time. In a college setting, a student's ability to behave in ways that are considered acceptable are influenced by sources ranging from a small group of friends to the entire campus community. College socialization occurs through college engagement. College engagement refers to the beliefs and attitudes students hold regarding college, such as the values, sense

of belonging, cognitive engagement, peer relationships, relationships with faculty members, and behavioral engagement (Gunuc & Kuzu, 2015).

Anticipatory Socialization

Although students can be socialized while in college, they can also begin their socialization process prior to starting college. This type of socialization is called anticipatory socialization (Dailey, 2016; Wærdahl, 2005; Weidman, 1989). The concept of anticipatory socialization was originally developed to explain one's adaptation to new norms or changes in expectations (Merton, 1957). Earlier studies suggested that anticipatory socialization in college influenced subsequent behavior after graduation (Wright, 1976), provided early evidence of a new graduate's commitment to a job (Sager & Johnston, 1989), and made graduates less likely to engage in questionable and unethical actions (Elias, 2006).

Recent scholars have studied anticipatory socialization of younger audiences. Dukes and Stein (2014) found that students who wanted a tattoo were more likely to report attitudes and behaviors similar to those of students who already had tattoos. Jahn and Myers (2014) found that students who regularly interacted with influential people in STEM careers became more familiar with STEM majors and were more likely to pursue them. Other studies used anticipatory socialization to describe the maturation of youth as they adapted to middle and junior high school (Wærdahl, 2005) or adolescence in general (Hoffner et al., 2008). Cranmer and Myers (2016) described the importance of student interaction with family, peers, coaches, and sports media as sources of anticipatory socialization into Division-I athletic programs. In a study of prospective first-generation college students attending high school, Gist-Mackey et al. (2018) found that the students engaged in various social support interactions during anticipatory socialization. However, formal college preparation programs focused more on technical aspects of college such as the application process and not the social and emotional components of college life (Gist-Mackey et al., 2018).

Just as the college experience can serve as a context for anticipatory socialization of the workforce, pre-college experiences can serve as a context of anticipatory socialization for the college experience. Scholars that approach anticipatory socialization often do so by first selecting a specific source of anticipatory socialization and then examine their messages and effects on an individual (Jahn & Myers, 2014). These sources used to develop one's anticipatory socialization are called reference groups.

Reference Group Theory

A reference group can be a person, group, or idea that an individual considers when selecting a particular course of action from among several alternatives or in making a judgment about a problematic issue (Kemper, 1968). Compared to a peer group, which consists of a group to which an individual already belongs, a reference group requires the individual to take the role of an outsider looking

in (Dukes & Stein, 2014). Reference groups are a crucial component for an individual to identify important sources for socializing influences (Weidman, 1989). They can often take the shape of role models, or significant other people in an individual's life that influence important decisions and create a self-concept in early stages, refine their self-concept in the middle stages, and enhance or affirm their self-concept in the later stages (Gibson, 2003). Reference groups can consist of persons, places, objects, or even ideas and concepts.

Introduced by Theodore Kemper (1968), reference group theory was used to explain how people made decisions in situations in which they had no experience. He divided reference groups into three categories: normative groups, comparison groups, and audience groups. Normative groups explicitly state the norms and espousing values of a particular environment. Comparison groups provide a frame of reference that help influence judgments about attitudes and issues. Comparison groups can be further divided into four subcategories: equity groups, legitimator groups, role model groups, and accommodator groups.

An equity group is used by an individual as a point of reference to determine if a particular action or situation is fair and equitable. A legitimator group confirms the legitimacy of a behavior or an opinion. A role model group consists of a person or even a fictional or historical character that demonstrates how something should be done. Lastly, an accommodator group provides a guideline for either complementary or parallel response in both cooperative and competitive settings.

The third reference group, following normative and comparison groups, is the audience group. Audience groups are similar to normative groups in that they influence the values and attitudes of an individual. The main difference is that an audience group does not take notice of the individual. This type of group serves as a motivator for an individual to act a certain way or believe in a certain thing.

Together, these reference groups provide the foundation for anticipatory socialization. Unlike peer groups, which require students to be experiencing a phenomenon to learn from it, reference groups allow students to learn about a phenomenon through secondary means and without ever having first-hand experience.

The challenge facing educators such as college personnel is their limitation in providing students the quantity and quality of reference groups necessary to make informed decisions in college prior to college attendance. Orientation programs and other college transition programs provide formal training and expectations of college life and can act as a normative reference group for students entering college for the first time. These programs are likely to teach incoming students about how college *should be* based on the outcomes desired, but these students often receive messages about how college *actually is* from other sources, such as family, friends, and media. Moreover, formal programs are more likely to focus on academic preparation and not enough on the social and emotional aspects of college life (Gist-Mackey et al., 2018). College media, in particular, serves as a powerful and consistent reference group for students wanting to learn about all aspects of college before they arrive. Regardless if these college depictions are accurate or not, students who use media as a reference group are more likely to internalize those messages as part of their anticipatory socialization (Nuñez, 2020).

Research Question

The goal of this study was to gain a better understanding of how prospective first-generation college students build their college expectations through informal methods of anticipatory socialization such as media. The study aimed to answer the following research question: How do high school students who are prospective first-generation college students conceptualize the reference groups depicted in college-themed media to aid in their anticipatory socialization? This research question can be further divided into two sub-questions: 1) How do high school students develop their expectations of engagement in college after reading a novel depicting various types of involvement in college activities? 2) What reference groups do high school students assign to fictional characters and settings in a college-themed mystery novel?

Summary

The successful transition into college involves the process of socializing into the campus culture through activities both inside and outside the classroom. Students who experience anticipatory socialization often socialize into college by creating reference groups that they use to form college expectations. The reference groups can consist of friends, families, admissions counselors, and college depictions in media. Due to the increasing prevalence of media in modern society, recent research has focused on media's effects on college students. This study seeks to understand how college-themed media can affect a student's perceptions of college engagement through anticipatory socialization.

Theoretical Framework

This study subscribes to an interpretive paradigm because it attempts to understand the social world from the perspective of the individual experience (Rossman & Rallis, 2003). The theoretical frameworks used for this study are Gunuc and Kuzu's (2015) student engagement theory and Kemper's (1968) reference group theory. Together, both theories help create a better understanding of anticipatory socialization as applied to an incoming college student.

Various qualitative methods can be used to understand phenomena through the meanings assigned to them by people. However, one limitation of traditional qualitative studies is that studies can be influenced by researcher bias and perspective (Bryman, 2015). Although quantitative studies can be more objective, they cannot examine aspects of human subjectivity the same way that qualitative analysis can. A research approach that structurally combines qualitative and quantitative strategies serves as an appropriate approach to explore human subjectivity on a topic while lessening research bias.

Q Methodology

This study utilized Q methodology to analyze the anticipatory socialization of the student participants. Q methodology is a research method approach that uses a structured way of applying qualitative and quantitative methods to research that exists within an interpretivist framework (Woods, 2012). Q methodology provides a way to study subjectivity, which can consist of a person's opinions, beliefs, and attitudes (Van Exel & De Graaf, 2005), and allows the scientific analysis of people's own perspectives and opinions (Previte et al., 2007) while retaining the depth of a humanistic and holistic approach (Brown, 1980).

The data collection phase of a study using Q methodology resembles similar qualitative approaches since participants are asked to assign meaning to a particular topic of interest based on their own identity and experiences. However, the analysis phase resembles a quantitative approach by using an inverted factor analysis on all responses as a way to shift away from individual narrative toward a range of shared viewpoints (Previte et al., 2007).

Q methodology consists of five stages (Brown, 1980; McKeown & Thomas, 2013; Previte et al., 2007; Van Exel & De Graaf, 2005; Watts & Stenner, 2012): identifying a concourse, developing a representative set of statements (Q set), specifying the respondents for the study (P set) and condition of instructions, administering the rank ordering of statements (Q sort), and analyzing and interpreting the results. In the first stage, the concourse is described as a series of viewpoints that represent every possible belief or opinion on a topic (Thorsen, 2006). The concourse is then condensed into a smaller set of representative statements called the Q set. Once the Q set has been created, the researcher strategically selects participants for the study, called the P set. These participants are given a list of instructions that help them complete a process called a Q sort. The Q sorting process takes place on a symmetrical grid where participants are generally asked to rank a set of statements based on their scalability, such as the most intense positive expression on one end to the most intense negative expression on the other. In the middle would be statements ranked as less intense, neutral in meaning. Each statement is given a statement score, also known as a Q sort value, based on their ranking within the Q sort. Once participants have ranked the statements, the statement scores are analyzed by correlating each participant's statement rankings with every other participants' rankings, then using an inverted, by-person factor analysis. This results in participants with similar response rankings being grouped together in clusters called viewpoints. Lastly, the participant clusters are evaluated to describe the reasons for the shared viewpoints. The data interpretation is often supplemented with follow-up narratives provided by the participants to explain their rankings.

P Set

In a Q methodological study, the group of participants asked to rank the statements is called the P set. When determining the size of the P set, the researcher must ensure there are enough participants to establish the existence of a factor for the purposes

of comparing one factor with another (Van Exel & De Graaf, 2005). Generally, the P set is smaller than the Q set (Brouwer, 1999). A guideline used by researchers is to have four or five persons defining each anticipated shared viewpoint. These viewpoints usually average between two to four, and rarely more than six (Brouwer, 1999). This results in a suggested guideline of eight to twenty participants in the P set (Previte et al., 2007).

The P set is selected strategically to ensure it is theoretically relevant to the problem of the investigation. For this study, the P set consisted of 14 high school students that identified as prospective first-generation college students. The number of participants fell within the general guidance of Q methodology sample sizes of eight to twenty.

Participants were strategically selected to represent students who had not yet gone to college in order to make sure the variable being studied was anticipatory socialization and not regular college socialization. The first-generation status of the students helped remove potential college reference groups such as degree-holding parents to better measure alternative reference group effects on their anticipatory socialization.

Recruitment consisted of fliers, handouts, and emails sent out to a Midwestern school district. This resulted in 13 participants from two high schools and one home-schooled student, totaling 14 participants ranging from ninth to twelfth grade. All students were assigned pseudonyms to protect their identity.

Media Source Selection

The study required a source to be used as the catalyst for triggering the process of anticipatory socialization, which would be used to measure student changes in attitudes towards student engagement and their internalization of reference groups found in the source. Although sources can consist of people or events, college-themed fictional media was selected for use in the study. Previous research has shown that fictional media can have a strong correlation with college expectations for prospective college students. Wasyliw and Currie (2012) found that students who watched the film *Animal House* were more likely to have positive attitudes towards attending college parties and binge drinking, which were actions prevalent in the movie. Another study discovered that a group of incoming college students believed their college experience would be similar to that depicted in the movie *Pitch Perfect* (Reynolds, 2014). In a comprehensive quantitative study focused on college media consumption and college expectations, Nuñez (2018) found that students who consumed college-themed media (i.e. movies, shows, and novels) in greater quantities were more likely to hold attitudes or beliefs representative of the media consumed. In a follow-up study, Nuñez (2019) interviewed a group of high school students after reading a college-themed fictional novel to determine what lessons were learned about college. The results reaffirmed that college-themed media did impact college perceptions.

As educational institutions shift to learner-centered approaches to education, fictional media has seen increased use in curricula focused on educational entertainment (Nuñez, 2020). For this reason, it is important to determine whether or not

fictional media can be used as a reference group to aid in anticipatory socialization into college. Regardless of whether or not such media is introduced in an educational capacity, students have access to this media and will form expectations based on what they see. This study targeted the specific reference groups that students apply in their anticipatory socialization.

The specific media chosen was a college-themed mystery novel. Fictional, college-themed literature provides opportunities as effective reference groups for the socialization of college students. Campus novels have historically provided normative depictions about the customs, rituals, jargon, and fashions within the American campus (Thelin & Townsend, 1988). However, while movies and television shows have been the subject of various socialization studies (Nuñez, 2020), studies involving novels are not as common. A possible reason for this could be that many college-themed novels, consisting of murder mysteries, dramas, and lighthearted comedies, are older, more easily dated, and therefore not representative of a modern college campus (Williams, 2012). Despite this, written fiction has the potential to be utilized by educators effectively for student learning. For example, Cirigliano (2012), a biology professor, created a fictional graphic novel that included various cell biology concepts and used it in a cell biology course. By using the Q methodology approach, Cirigliano discovered that the students found the graphic novel entertaining and more easily retained the concepts applied within. As a result of the study, Cirigliano stated that “passive exposure to information-enriched entertainment may prove beneficial as a method of making connections, recalling information, enhancing memory, and stimulating interest in academic subjects” (p.29, 2012). The current study follows a similar approach to Cirigliano’s research in the context of higher education.

The college-themed mystery novel was written and published by the study author, following a similar structure to Cirigliano’s (2012) Q-methodology study using an author-produced source of media. The mystery novel tells a fictional story about a college researcher investigating student suicides with the primary purpose of entertainment, but features a large, rotating cast of characters experiencing their first year of college. The variety of traditional college experiences depicted in the novel made it appropriate for use in the study. For example, one character in the novel struggles with homesickness and adjusting to living alone, away from his family. Another student raised on a specific religious denomination is challenged by the various faiths and viewpoints experienced at the campus. Yet another student experiences assimilation into a new culture as an international student from another country. The main protagonist of the novel is a doctoral student researcher interviewing students on their first year of college while trying to discover why suicides are taking place on the campus.

Q Sort Procedure

The Q sorting process of a Q methodology study requires a concourse of communication to be created, or a compendium of every possible statement relating to a topic. The concourse is then narrowed down into a more concise representative set

of statements called a Q set. The statements that form a Q set become the unit of analysis for the study, representative of the larger concourse of statements.

The Q set was created by compiling statements into theoretical categories using Fisher's (1956) method of experimental design. The statements in this design are sorted into categories that are created using theoretical considerations. Since all the statements in one category are generally homogenous, a researcher can select the statements most different from each other to provide a comprehensive look at every opinion or idea within that category. By doing this with every category, a comprehensive view can be achieved of a topic or discourse.

In the traditional design model, factors are defined with a number of levels respectively without replication. The experimental design process in Q Method is similar, except that the levels in factors are replicated through a balanced block design. In a balanced block design, statements are drawn from factors in equal numbers and provide a number of combinations or groupings for each level. The structured design is beneficial because it provides a focus and boundaries of the topic of interest to achieve a manageable study that answers the research question.

Once the statements were reduced into a representative Q set, the participants, or P set, were instructed to rank the statements against each other to determine how strongly they agree or disagree with the statement. Using a by-person factor analysis, the participants were factored into groups based on their shared viewpoints. These shared viewpoints, called Q sorts, allow a researcher to interpret underlying variables relating to the participants.

To answer the two sub-research questions of the study, two Q sets were created. Each Q set will be briefly reviewed below under the corresponding sub-research question.

Q Set 1

The first Q set was created to provide a pretest and posttest to measure participant attitudes towards college engagement before and after reading a college-themed mystery novel. The Q Set was created to answer the following research question:

- 1) How do high school students develop their expectations of engagement in college after reading a novel depicting various types of involvement in college activities?

College student engagement is defined as the beliefs and attitudes students hold regarding college, such as values, sense of belonging, cognitive engagement, peer relationships, relationships with faculty members, and behavioral engagement (Gunuc & Kuzu, 2015). A student's level of engagement within the college is developed through the process of socialization while in college or anticipatory socialization before entering college. Socialization and anticipatory socialization, as mentioned earlier, provide a student with the tools to understand the norms of a college and adapt to those norms accordingly, the result which can be measured using their attitudes toward engagement within the college. The first sub-research question seeks to understand how a college-themed novel affects the student's process of

anticipatory socialization by analyzing the change in college engagement before and after reading the novel.

To answer this question, a Q set had to be created that could measure the participants' attitudes and beliefs toward college engagement. The first step was to build the concourse. The process of identifying a concourse includes creating a series of viewpoints (Thorsen, 2006). This required providing a broad range of viewpoints regarding student engagement. A concourse consists of statements collected through different means, such as primary and secondary sources. Studies have developed the concourse from validated survey instruments (Woods, 2012) to discussion forum posts (Orchard et al., 2015). This study utilized the following questionnaires and survey instruments to develop the concourse: the National Survey of Student Engagement (Kuh, 2001; National Survey of Student Engagement, 2012), the Small Group Socialization Scale (Riddle et al., 2000), Hammond's Socialization Scale (Hammond & Shoemaker, 2014), Student Engagement Scale (Gunuc & Kuzu, 2015), a survey created by the Wabash National Study of Liberal Arts Education (2006–2012), and a college media and engagement survey (Nuñez, 2018). The studies were chosen due to their strong reliability and validity and their relevance to student engagement and media. Together, the surveys provided a comprehensive series of statements relating to student engagement.

The next step involved reducing the number of statements to create a representative Q set. The statements were reduced from 182 statements derived from the engagement instruments to a 52-statement Q set using Fisher's (1956) balanced block design. This design involved grouping the statements into several categories with an equal distribution of representative statements in each category.

The categories were modeled after Gunuc and Kuzu's (2015) student engagement categories developed through factor analysis. These student engagement categories include valuing, sense of belonging, cognitive engagement, peer relationships, relationships with faculty member, and behavioral engagement. Each statement in the Q set was placed into one of these six categories.

Q Set 2

The second Q Set was created to allow participants to assign various characters, plot elements, and settings into a reference group as part of their anticipatory socialization. It provided participants an opportunity to express their reception or rejection of various elements in the novel based on their enjoyment of it or its value as an educational resource. It was created to answer the following research question:

- 2) What reference groups do prospective first-generation college students assign to fictional characters and settings in a college-themed mystery novel?

The second sub-question of the study attempted to understand how high school students, who were prospective first-generation college students, assign reference groups as part of their anticipatory socialization. To do this, a Q set was developed using a source from which participants would pull reference groups.

The concourse of communication was created using statements that came from online reviews of the mystery novel. This included 17 reviews from Amazon.com, 21 reviews from Goodreads.com, and 12 reviews from Librarything.com. The statements contained both positive and negative opinions on the novel and reviewed the novel on various aspects, from creative elements such as world-building and characters to technical elements such as editing and pacing. A total of 84 statements created the concourse of communication.

Using Fisher's (1956) balanced block design, the statements were assigned a category based on Kemper's (1968) reference group theory. Statements were initially placed in one of six categories: Normative group, equity group, legitimator group, role model group, accommodator group, or audience group. Repetitive statements were removed, resulting in each category having six to seven statements. Several of the statements did not fit into a specific reference group category, but offered distinctive viewpoints on the novel expressed by several of the reviewers. To maintain a comprehensive representation of all the views on the topic, a seventh category was created called "general" that contained these additional statements. The resulting Q set consisted of 46 statements.

Q Sort Protocol

Once the Q sets were completed, participants were asked to rank the statements on a Q sort grid. The grid was printed on poster board with a scale of -5 to +5 going from left to right. There were individual grid blocks to place a statement anywhere on the grid, one statement per block, with more blocks in the center on the grid and fewer blocks at the ends. Using index cards containing each of the statements, the students placed the statements on the grid based on whether they agreed with the statement (+1 to +5), disagreed with the statement (-1 to -5), or were neutral about the statement (0). Students placed index cards on the grid blocks until all index cards were placed. Each grid block could only be used once, allowing for a rank ordering of statement agreeability. This layout allowed maximum points to be assigned to extreme views for data analysis while minimizing the effects of statements where the participants were apathetic or unsure.

The first Q set, Student Engagement (labeled Q set 1A), was provided to the participants at the beginning of the study. After completing Q set 1A, participants were given the novel to read over two weeks. At the end of the two weeks, at the second meeting, each participant took a content quiz to ensure the novel was read. A passing score of 70% or higher was required to continue with the study. All participants passed the content quiz.

At the second meeting, the Student Engagement Q set was provided a second time (labeled Q set 1B). The purpose of this Q set was to see if their viewpoints on engagement had changed since reading the novel. Afterwards, the participants were asked to complete the second Q set, Reference Groups (labeled Q set 2). This allowed the participants to share their opinions on the novel using pre-determined review statements used to design the Q set. Once participants completed both Q sorts at the second meeting, they were asked follow-up questions about their rankings to

explain why they ranked statements the way they did. These statements would be used later to assist with interpretation of the quantitative data.

Data Analysis and Results

The meaning-making in Q methodology is typically completed using quantitative analysis followed by interpretation (Previte et al., 2007). First, an inverted factor analysis was completed, which involved a by-person factor analysis that sorted respondents together who shared viewpoints within the topic. PQMethod, a common Q methodology software, was used along with SPSS for the purpose of data analysis.

Inverted Factor Analysis

The Q sort values, or the numerical rankings of each statement by a participant, were entered into factor analysis software to determine factor loadings. In Q methodology, the resulting factors generally range from two to four factors (Brouwer, 1999). These factors serve as viewpoints shared by participants that ranked certain statements in a similar way. The statistical process involved was the same as traditional factor analysis, including factor rotation and evaluating the significance of each factor.

Each of the three Q sets given to participants resulted in four factors, or shared viewpoints. Q sort 1A, derived from Q set 1A, consisted of the following viewpoints: independent realists, questioning realists, academic optimists, and social optimists (Table 1). Q sort 1B consisted of independent realists, collegial academics, social realists, and interdependent optimists (Table 2). Q sort 2 consisted of entertained and educated, learning prioritized, no learning or engagement, and personally invested (Table 3). A summary of all the viewpoints shared by the participants can be found in Table 4.

Q Sort 1 Results

Completion of analysis of the three Q sorts revealed some notable findings about how the high school students conceptualized college engagement before and after reading the novel (Table 4). At the initial phase of the study, the students had varied views of college engagement, ranging from academic engagement to social engagement. Overall, the students were unfamiliar with the role of student affairs professionals in a college setting nor understood the value of out-of-class engagement. Their viewpoints mainly highlighted the value of college (*independent realists*) and their interest in performing well in their classes (*questioning realists* and *academic optimists*). Only one of the viewpoints emphasized the creation of social connections as an important part of university life (*social optimists*).

After reading the novel, the viewpoints shifted to include more peer interaction as a valuable form of college engagement through the creation of two new viewpoints

Table 1 4-factor rotation Q sort 1A

	Independent realists	Questioning realists	Academic optimists	Social optimists
Juan			.756	
Jeremy			.688	
Nicholas			.679	
Kayti	<i>-.445</i>		.517	
Zoey			.439	
Ruth	<i>.415</i>		.416	
Collin	.892			
Azul	.651			
Taylor	.590	<i>.531</i>		
Luke				.875
Daniela				.535
Olivia				.493
Caelan		.818		
Ryan		.631		

Data in italics signifies secondary loading onto a factor
 Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalization

Table 2 4-factor rotation Q sort 1B

	Collegial academics	Independent realists	Social realists	Interdependent optimists
Azul2		.668		
Kayti2		.647		
Collin2		.647		
Taylor2		.461		
Nicholas2			.776	
Zoey2			.753	
Luke2			.610	
Daniela2	.739			
Jeremy2	.710			
Olivia2	.551			
Caelan2	.493			
Juan2				.879
Ryan2				.601
Ruth2				.529

Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalization

Table 3 4-factor rotation for Q sort 2

	Entertained and educated	Learning prioritized	No learning or engagement	Personally invested
Daniela	.820			
Zoey	.795			
Ruth	.771			
Nicholas	.741			
Ryan	.730			
Juan	.600			
Collin		.885		
Luke		.788		
Azul		.536		
Caelan			.718	
Taylor			.695	
Kayti			.489	
Olivia				-.695
Jeremy				.677

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

(*collegial academics* and *interdependent optimists*). Table 5 provides a description of each participant and how their viewpoints changed between Q sort 1A and Q sort 1B. One viewpoint, the *independent realist*, had minimal changes before and after reading the novel. The rest of the viewpoints, however, placed greater emphasis on working with peers in a variety of capacities to be more successful in college. One of the recurring themes of the novel was the struggles that the first-year students faced and the bonds they formed that helped them get through the challenges. This idea was prevalent among the participants as well after reading the novel, as viewpoints changed from a more isolationist approach to college to a collegial and interdependent approach to college. Even the *independent realists*, who did not plan to interact much with their peers after reading the novel, acknowledged that peer interaction was necessary for college success, at least some of the time.

Q Sort 2 Results

The first Q sort identified changes in viewpoints after reading a college-themed mystery novel as they relate to college engagement. The second Q sort, Q sort 2, sought to understand why these changes may have occurred as they relate to anticipatory socialization. One of the notable findings involved the importance of enjoyment in the retention and internalization of information. The students who shared the *entertained and educated* viewpoint experienced the most drastic shifts in college engagement viewpoints before and after reading the novel. Some of the students who questioned their ability to be successful in college were more confident after reading the

Table 4 Q sort full results

Q Set	Q Sort	High Score Categories (Positive)	Group Agrees with Statement	High Score Categories (Negative)	Group Disagrees with Statement
Q Set 1A Student Engagement 52 statements	Viewpoint Name				
	Independent Realists	Cognitive engagement, behavioral engagement	College is hard, I will attend art shows or plays, few people will help me	Valuing, behavioral engagement, sense of belonging	Facilities will benefit me, I will attend career workshops, I will question my decision to enter college
	Questioning Realists	Valuing, cognitive engagement	I will question my decision to go to college, interaction with peers important	Sense of belonging, valuing	I will find someone I can get close to, I will feel secure, students will be different from me
	Academic Optimists	Valuing, cognitive engagement, sense of belonging	I look forward to college, I will learn something meaningful, there will be solidarity among students	Sense of belonging, cognitive engagement, valuing	I will question my decision to go to college, college will be hard, it will be hard to make friends
	Social Optimists	Behavioral engagement, peer relationships	Participate in spiritual activities, I'll try to understand others' views, student friendships will be satisfying, making friends is essential	Behavioral engagement, cognitive engagement	I will attend art shows or plays, I will meet outside of class to study, few students are willing to help me

Table 4 (continued)

Q Set		Q Sort	
Viewpoint Name	High Score Categories (Positive)	Group Agrees with Statement	High Score Categories (Negative)
		Group Disagrees with Statement	
Q Set 1B Student Engagement 52 statements	Independence Realists	Valuing, Cognitive engagement	Relationship with faculty, Cognitive engagement
		University is beneficial, I will enjoy being in college, college will be difficult	I will discuss a problem with college staff, I will meet with students outside of class to talk about course-work and study
	Collegial Academics	Valuing, behavioral engagement, cognitive engagement	Behavioral engagement, peer relationships
		I look forward to college, I will engage in fitness activities, I will meet with students to talk about school and study	College parties are essential to college, I will attend art shows/plays, making friends is important/will be satisfying
	Interdependent Optimists	Sense of belonging, Relationship with faculty	Cognitive engagement, Valuing
		I will find someone who can provide emotional support and discuss personal matters, I will reach out to college staff	It will be hard to make friends, I will examine my own biases, most students have different values than me
	Social Realists	Valuing, peer relationships	Behavioral engagement, valuing
		Students will be different from me, I will have close friends, I will enjoy communicating with other students	College parties are essential, rules at university are fair for everyone, I will exercise regularly

Table 4 (continued)

Q Set	Q Sort	Viewpoint Name	High Score Categories (Positive)	Group Agrees with Statement	High Score Categories (Negative)	Group Disagrees with Statement
Q Set 2 Reference Groups 46 statements		Entertained and educated	Audience group, general	Interesting story with good character study, well-constructed mystery, changed my views on college	Legitiminator group, equity group, accommodator group	Characters were nothing special, depression is rarely addressed, I didn't get to know the characters well
		Learning prioritized	Role model group, normative group	Book teaches that you have to put a lot of effort in college, good representation of new college experiences	Accommodator group, audience group, equity group	I connected with at least one character, students might enjoy reading the book, I cared about characters' fates
		No learning or engagement	Role model group, accommodator group, general	View of college didn't change, too many characters, didn't connect with characters, writing was confusing	Role model group, general	Good story for parents to read, things could have been more subtle, this is a well-constructed mystery
		Personally invested	Audience group, role model group, normative group	Good book for students entering college, you have to try something new, better for someone in college	Role model group	My view of college didn't change much after reading this

Table 5 Participant Q sort changes

Q Sort	Collin	Taylor	Azul	Caelan
Engagement 1A Q Sort	Independent Realist	Independent Realist (<i>Questioning Realist</i>)	Independent Realist	Questioning Realist
<i>Engagement 1A Secondary Loading</i>				
Engagement 1B Q Sort	Independent Realist Learning Prioritized	Independent Realist No Learning or Engagement	Independent Realist Learning Prioritized	Collegial Academic No Learning or Engagement
Reference Q Sort				
Q Sort	Ryan	Zoey	Nicholas	Kayti
Engagement 1A Q Sort	Questioning Realist	Academic Optimist	Academic Optimist	Academic Optimist (<i>Independent Realist</i>)
<i>Engagement 1A Secondary Loading</i>				
Engagement 1B Q Sort	Interdependent Optimist Entertained and Educated	Social Realist Entertained and Educated	Social Realist Entertained and Educated	Independent Realist No Learning or Engagement
Reference Q Sort				
Q Sort	Ruth	Juan	Jeremy	Luke
Engagement 1A Q Sort	Academic Optimist (<i>Independent Realist</i>)	Academic Optimist	Academic Optimist	Social Optimist
<i>Engagement 1A Secondary Loading</i>				
Engagement 1B Q Sort	Interdependent Optimist Entertained and Educated	Interdependent Optimist Entertained and Educated	Collegial Academic Personally Invested	Social Realist Learning Prioritized
Reference Q Sort				
Q Sort	Olivia	Daniela		
Engagement 1A Q Sort	Social Optimist	Social Optimist		
<i>Engagement 1A Secondary Loading</i>				
Engagement 1B Q Sort	Collegial Academic Personally Invested	Collegial Academic Entertained and Educated		
Reference Q Sort				

book. Others were more willing to use the available resources in college to succeed. The students who shared the *no learning or engagement* viewpoint, however, displayed very little change in their college engagement viewpoints. Only one of the students shifted their viewpoint to one that had a higher value placed on collaboration with peers. The *learning prioritized* group, the third group, fell in between the first two groups. Per their narratives, they valued and retained many lessons that they felt the book taught them. However, there was a lack of internalization of those messages, based on their responses to the Q sort after reading the novel. Their viewpoint changes were minimal, yet they acknowledged that they learned something. The final group, *personally invested*, reacted more strongly to some parts of the book than others based on their emotion and personal connections to the characters.

This suggests that to truly internalize something learned through a medium like a novel, the student must find the subject matter enjoyable, or strongly relatable to their lives. In the case of the *learning prioritized* group, they treated the novel as a strict learning tool, but without the enjoyment aspect, little lasting impact was observed, at least at the subconscious level. For this reason, personal taste and interest serve as a strong precursory element to determine the lasting impact that a pedagogical tool can have on a student.

Discussion

The three Q sorts, when taken together, revealed a number of themes among the students. The students who were most invested in the media source, either through enjoyment or relatability to the characters, experienced the most drastic shifts in attitudes towards college engagement. The students who did not enjoy nor find value in the media source experienced the least amount of change in attitudes. Moreover, the students in this group were more likely to have an alternate reference group from which to base their college expectations, such as a distant relative or a role model.

This suggests that students experiencing anticipatory socialization will often refer to multiple reference groups simultaneously and then compare them with each other, assigning them primary or secondary reference group status. Reference group ranking was determined by a combination of enjoyment and relatability with the source. Information relayed by primary reference groups was valued higher than information relayed by secondary reference groups.

Recommendations for Practice

The findings of this study suggest that learning occurs more naturally when a person is engaged, enjoys what they are doing, and finds the content relatable to their life. This is true for both socialization while in college and anticipatory socialization before college, as educational entertainment has shown to improve learning from early childhood to postsecondary education by engaging and motivating learners (Nuñez, 2020).

Practitioners of pre-college programs at the secondary and postsecondary levels should ensure that programs evolve and adapt to engage prospective college students, especially if they are first-generation. This study suggests that prospective first-generation college students have a limited understanding of college engagement beyond the academic requirements of a college degree. Practitioners should create engaging, entertaining, and relatable programs that offer a more holistic view of college engagement. Such programs can include the following:

- Showing students a college-themed movie or television show, followed by a discussion of its themes and analysis of healthy and unhealthy social behaviors
- Starting a book club that focuses on a college-themed novel, then engaging students with discussion of themes and reflection activities
- Adding a social development component to college preparatory programs, including communication workshops, conflict resolution strategies, and group projects
- Creating a college mentoring program that pairs a high school student with a college student that could serve as a reference group for social and emotional support
- Leading an activity where students list every reference group in their life, or any person, place, or construct that has helped them shape their college perceptions, in order to discover what they've learned and their gaps in anticipatory socialization

Conclusion

The purpose of this study was to understand how high school students who may be prospective first-generation college students conceptualize college engagement through informal anticipatory socialization. This was achieved by analyzing the students' viewpoints on the reference groups they assigned to a college-themed mystery novel and how that influenced their viewpoints on college engagement. The results of the study suggest prospective first-generation college students have a limited understanding of college engagement beyond academics and require more holistic preparation that includes social and emotional college development. This can be achieved through educational sources that are enjoyable and relatable to the student for proper internalization of information. The level of engagement with the educational source determines whether the student assigns it status of primary or secondary reference group for message internalization.

Availability of Data and Material Available upon request.

Code Availability Not applicable.

Declarations

Conflicts of Interest/Competing Interests Not applicable.

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