

Impact of Community-Based Service-Learning on Undergraduate Students Self-Authorship

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Research on college students' experiences tends to focus on their tangible takeaways rather than their introspective conclusions gained from critical reflection (Barber & King, 2014). Students thus often define their experiences as summaries or concrete observations rather than constructive conceptualizations (Dyment & O'Connell, 2011). This pattern may be attributed to current college learning atmospheres. Universities expect students to develop and utilize critical reflection skills, but professors provide assignments focused on assessing knowledge and comprehension rather than asking for students' synthesis of new thoughts (Dyment & O'Connell, 2011; King et al., 2009). Correspondingly, few students learn how to reflect critically (Barber et al., 2013; Dyment & O'Connell, 2011; Hart Research Associates, 2015) and remain externally defined, or reliant on parents, educators, and other voices to make decisions (King et al., 2009). In contrast, to be internally defined, also known as being self-authored, refers to one's ability to individually develop a sense of personal, relational, and world views (Baxter Magolda; 2001 Kegan, 1994). Kegan (1994) initially proposed that moving from being externally defined to internally defined occurs along a continuum. Additionally, becoming self-authored prepares individuals to become more productive citizens, to better understand large scale world problems and abstract complexities of life, and to cultivate relationships with diverse individuals (Barber et al., 2013; Baxter Magolda, 2008; Kegan, 1994; Pizzolato, 2008).

ABSTRACT

This qualitative study utilizes a phenomenological approach to assess impact of education-based service-learning experience on undergraduates' self-authorship process at a 4-year university. Research questions focused on implementing Boud et al. (1985) model of reflection as a framework for journaling; identifying participant variables indicative of self-authorship; and deciphering if a combination of service-learning activities and participant variables elicit self-authorship growth. Themes determined from participants' journal entries indicate service learning experiences combined with critical reflection elicit development in inner voice, or at minimum, engage students in recognizing internal dialogues. Several noted the benefit of classroom activities in helping them make meaning of experiences. Others drew on past experiences to shape how they acted and thought as a teacher for the students they were helping. Many noted they found it impactful or disheartening to learn about their students' backgrounds; this internal conflict often served as an opportunity for participants to re-consider their worldview, at least from an educational sphere. Even though many enrolled to meet the university's experiential learning course requirement, participants overall appeared to develop a stronger inner voice.

Experiential Learning

David Kolb (1984) proposed a four-step model of experiential learning theory as an integration of the behavioral and cognitive learning theories developed by John Dewey, Jean Piaget, and Kurt Lewin. Dewey, Joplin, and Piaget posit that all learning is experiential (Grady, 2006), as individuals often formulate knowledge from their life experiences (Kolb, 1984). Piaget further poses the viewpoint that all learned knowledge can and should be connected back to existing knowledge; any individual's baseline of knowledge thus serves as the catalyst for reflection and continued learning (Kolb, 1984). As defined by Kolb (1984), learning is "the process whereby knowledge is created through the transformation of experience" (p. 38). Oftentimes, learning is associated with the classroom, where teachers aim to transfer knowledge to their students. However, to some degree, all the above theorists proclaim learning to be the product of critical reflection stemming from the synthesis and connections made from concrete experiences (Dewey, 1938; Lewin, 1951; Kolb, 1984; Piaget, 1972).

Service-learning and Developmentally Effective Experiences

Educators and universities alike draw from Kolb's (1984) experiential learning theory when creating hands-on learning, study abroad trips, and internship experiences. University-level service-learning (SL) courses provide students with yet another opportunity to engage in this model. Specifically, SL courses allow students to participate in activities that allow them to meet community needs, reflect on the experience to engage in personal development, and develop a better sense of the importance of civic engagement (Bringle & Hatcher, 1995, 2009). Ash et al. (2005) echoes the sentiment that SL provides an adequate environment for students to expand their learning beyond the classroom. Eyler et al. (1996) further substantiates the benefit of SL by defining critical reflection as the component needed for permitting this deeper understanding of learning.

Specific instances in which students engage in these higher levels of learning that promote internal growth are termed developmentally effective experiences (DEEs) (King et al., 2009). As defined by King et al. (2009), DEEs must impact an individual's meaning-making orientation, or the way individuals view themselves, others, and the world (Barber & King, 2014). Service-learning and DEEs also allow students to further identify and confront the bounds of their values; develop deeper awareness and perspective of social, civic, and diversity issues; and take greater responsibility for the pursuit of external, real-world learning experiences (Ash et al., 2005; Jenkins & Sheehy, 2011; King et al., 2009). Thus, as a result of service-learning and DEEs, students engage in the self-authorship process (Kegan, 1994; King et al., 2009; Myers, 2020).

Self-Authorship

Based on the works of Robert Kegan (1994) and Marcia Baxter Magolda (2001, 2008, 2014), self-authorship describes a three-step continuum in which students develop their inner voice by creating meaning from their concrete experiences. Myers (2020) notes that self-authorship provides an appropriate context for students to examine and synthesize the learning outcomes from their experiences in service-learning courses. Individuals first frame their models of thinking from external voices

and rely on educators or other adults to inform them what to think (Barber & King, 2014; Baxter Magolda, 2008; Baxter Magolda & King, 2012). Individuals then move into the 'crossroads' phase, where their externally defined views are at odds where the formation of their preconceived values. Finally, individuals move into the final phase of self-authorship where they determine their own personal beliefs, thus contextualizing their person within a larger social and world scope (Coughlin, 2015). Baxter Magolda & King (2008) thus note becoming self-authored means the individual has learned to "negotiate and act on [their] own purposes, values, feelings, and meanings rather than those [they] have uncritically assimilated from others" (Mezirow, 2000, p. 8).

Reflective Journaling

Students must individually reflect to synthesize conclusions from their service-learning and educational experiences (Baxter Magolda & King, 2008; Jenkins & Sheehy, 2011; Moely & Illustre, 2014). Ash et al. (2005) concur and specifically note that critical, guided reflection offers ample opportunity for students to further their learning. However, many students are not taught how to critically reflect even though it is necessary for solidifying higher levels of learning (Ash et al., 2005; Dymont & O'Connell, 2011). Reflective journal prompts may offer a potential solution for addressing students' lack of ability to critically reflect, and therefore, ability to become self-authored. Kolb's (1984) model of experiential learning proposes reflection as a critical step to bettering future learning experiences. Baxter Magolda and King (2008) further suggest educators offer questions that prompt students to look beyond the face-value of the experience and explore extraneous connections. Boud et al. (1985) proposed a model of reflection that follows a similar structure to that of Kolb (1984). Learners should first describe the experience and their corresponding observations before examining and considering their associated emotions. Johns (1995) later added a fourth stage, learning, which asks students to reflect on their feelings toward and learning outcomes of the experience. Finally, to encourage students to champion and strengthen their internal voice, educators should decrease the level of given structure for progressive journal prompts (Dymont & O'Connell, 2011). The beginning prompt should explicitly probe students for their observations while the last should offer little to no structure. This gradual decrease allows students to take a more active part in their learning; these learners may show to be furthered developed in their self-authorship journey.

Purpose of Study

Developmentally effective experiences such as service-learning courses often elicit personal development in students (Barber et al., 2013; Barber & King, 2014; Kegan, 1994; King et al., 2009). While different opportunities may give way to different developments, learners commonly establish stronger values and beliefs, increase their social and worldview awareness, develop an internal identity, and engage in learning beyond the classroom (King et al. 2009; Moely & Illustre, 2014; Yoon et al., 2011). Essentially, they start to become self-authored. Therefore, this study seeks to assess the impact of an education-based service-learning experience on undergraduates' self-authorship process at a 4-year university. The following research questions guided the study:

RQ1: To what degree does implementing the Boud et al. (1985) model of reflection as a framework for undergraduate student journaling throughout a 16-week service-learning course at a 4-year public university elicit development of the student self-authorship process, if at all?

RQ2: What participant variables indicate the greatest likelihood of self-authorship growth (i.e. do college seniors have stronger development of inner voice vs. college freshmen)?

RQ3: Is it a combination of service-learning activities and participant variables that elicit self-authorship growth (i.e. the right person and the right experience elicits growth)?

Definitions

Drawing on the works of Robert Kegan and Marcia Baxter Magolda, this study defines self-authorship and inner voice respectively as “an ideology, an internal personal identity, a personal authority” (Kegan, 1994) in which individuals rely on their “meaning-making capacity from...inside the self” (Baxter Magolda, 2008). Additionally, several researchers suggest individuals often experience self-authorship as a result of critical reflection in conjunction with service-learning (SL) and/or developmentally effective experiences (DEEs), where critical reflection is the act of moving beyond describing an experience to evaluating the meaningfulness of an experience (Ash et al., 2005; Felten & Clayton, 2011), SL is applied curricular learning with corresponding structured reflection (Bringle et al., 2006; Bringle & Hatcher, 2009), and DEEs are experiences that progress an individual’s self-authorship (King et al., 2009).

Study Design

The following research study is qualitative in nature and is modeled after Hensler (2017), which utilized a phenomenological approach to describe community college students’ development of self-authorship as a result of participating in an international service-learning trip. Researchers assume that modeling this design with a public university’s service-learning course focused on a local, community setting may prove useful in similarly determining participants’ degree of self-authorship.

Before conducting the study, researchers completed the Collaborative Institutional Training Initiative program (CITI) in order to engage in study with human subjects and received permission from the university’s Institutional Review Board.

Researchers conducted this study with an undergraduate service-learning course at a public four-year university for which they are the corresponding professor and graduate teaching assistant. The course focuses on partnering students in science-related majors with local elementary and middle school teachers to help teach science. Students may enroll in the course to fulfill the university’s experiential learning course requirement.

In total, 60 students are enrolled in the course; students may choose to attend in-person, online synchronously, or asynchronously. For students attending asynchronously, all lessons are recorded live and can be accessed on the university’s online learning platform. Researchers recruited study participants during one class

session for which the lesson was recorded and posted online. Three email reminders were also sent: one immediately following class instruction; a reminder email sent five days after initial introduction; and a final, individualized email. Of the total class, 21 students signed the consent form (see Appendix A) and agreed to participate in the research study; eight were randomly selected for data collection and asked to confirm participation. Chosen participants information will be assigned pseudonyms; all information will be kept confidential. There are no risks to participating in this study and choosing to participate or not participate will neither benefit nor harm a student's academic performance in the course.

Data Collection

Students enrolled in the course are required to submit weekly journals entries that encourage reflection of the experience. Comparable to Hensler (2017), researchers utilized Seidman's (1991) three-interview model to formulate the journals for data collection. Six journal topics were selected for data collection and prompts accordingly probed students for details on their life history (journals one and two), thoughts on the service-learning experience (journals six and seven), and overall reflection of the experience (journals eleven and twelve) (Seidman, 1991). Within this framework, researchers utilized a model of reflection developed by Boud et al. (1985), later addended by Johns (1995), to further write journal prompts aimed at engaging students in critical reflection of their experiences. As such, the prompts asked students to look back on their experiences and provide any information about feelings, evaluations, or learning that occurred during or as a result of the experience (Boud et al. 1985; Johns, 1995). Journal prompts became increasingly less structured over the course of the class to further examine whether students developed a sense of self-authorship and inner voice without external suggestion from researchers (Boud, 2001; Dymont & O'Connell, 2011). Table 1 illustrates overall structure of the frameworks used in journal entry construction as well as corresponding prompts used in data collection. Table 2 provides a complete list of journal entry assignments.

Table 1. Development of journal entries based on Seidman (1991), Boud et al (1985), Johns (1995), and Dymont & O'Connell (2011)

Three-Interview Model	Model of Reflection	Journal Prompts	Level of Structure
Seidman (1991)	Boud et al. (1985), Johns (1995)	<p style="text-align: center;">Journal Prompts</p> <p>1—This entry will focus on self-reflection, it is not a biography. Describe yourself a little bit: Where are you from, and where did you grow up? How old are you? What is your current college status? (Freshman, Sophomore, etc.) Describe your path to [UNIVERSITY] – why did you decide to attend? (1) What is your major, interests, or career goals? What are some of your hobbies? (2) What two virtues are most important to you and why? How do you feel you exhibit these in yourself? (3) Describe an experience in your life that challenged you. How did you react, and what did you learn from it?</p> <p>2—This entry will focus on what education and service-learning mean to you. Describe your educational background. How important was education to you and your family growing up? Give some examples that reflect how important it was. Describe your favorite and least favorite educational experiences (could be a day or a whole year) and describe why. What made you want to do Project FOCUS? What were your initial thoughts on service-learning? What does service-learning mean to you? Have you participated in a service-learning project/course/activity before? How do you think this experience will benefit you? Establish and elaborate on two or three goals you aim to accomplish during this semester.</p> <p>6—Describe your experience in the classroom this week. What happened? What did you do? What did the students do? Did your teacher ask you to help teach at all? What were positive aspects of your experience? Negative aspects? How did these make you feel? Considering both the positive and negative aspects of this week's classroom experience, what will you do the same next week? What will you do different? Was there anything you felt you could have dealt with better? Why or why not? What did you learn from this experience?</p> <p>7—What significant learning events happened in your classroom this week? What caused them to happen? How do you help support your teacher during the lessons? How is your presence benefiting the learning environment? What are some difficulties in the process of schooling? You may focus on: How the students responded to your hands-on activity; How the children interacted with you, the teacher, and each other; The students' attitudes toward the experiment or activity; How the teacher felt about and reacted to the activity; Anything you have gained from the experience.</p> <p>11—Who are you going to be as a teacher? Whatever your profession, we are all teachers to some degree. Reflect on what you learned in this course about yourself and teaching and how will you integrate that into who you are going to be in the future.</p> <p>12—Reflect on your entire service-learning experience this semester. This should be 3-4 pages (double-spaced) in length.</p>	Dymont and O'Connell (2011)
Interview 1: Life History			Most structured
Interview 2: Details on the Experience	<ol style="list-style-type: none"> 1. Return to the Experience 2. Attend to feelings 3. Re-evaluate the experience 4. Learning 		Less structure
Interview 3: Reflection on the Experience			Least structured

Table 2.
Complete List of Course Journal Entry Assignments

JOURNAL NUMBER AND TITLE	PROMPT
1 Who are You	This entry will focus on self-reflection, <i>it is not a biography</i> . Describe yourself a little bit: Where are you from, and where did you grow up? How old are you? What is your current college status? (Freshman, Sophomore, etc.) Describe your path to [University] – why did you decide to attend? (1) What is your major, interests, or career goals? What are some of your hobbies? (2) What two virtues are most important to you and why? How do you feel you exhibit these in yourself? (3) Describe an experience in your life that challenged you. How did you react, and what did you learn from it?
2 Education and Service-Learning	This entry will focus on what education and service-learning mean to you. Describe your educational background. How important was education to you and your family growing up? Give some examples that reflect how important it was. Describe your favorite and least favorite educational experiences (could be a day or a whole year) and describe why. What made you want to do Project FOCUS? What were your initial thoughts on service-learning? What does service-learning mean to you? Have you participated in a service-learning project/course/activity before? How do you think this experience will benefit you? Establish and elaborate on two or three goals you aim to accomplish during this semester.
3 Role Models and Mentors	Think about a teacher who inspired you. Were they a 'good' teacher? What age were you when you had this teacher? Why did they inspire you, and what did they do that made them good? That is to say, what qualities did this teacher have that you appreciated? Do you think all 'good' teachers share these qualities? Has this teacher shaped your career path in any way? How? Is there anything else about this teacher that stands out to you?
4 SKIP	No entry was provided this week.
5 Online versus In-Person Learning Environments	As you start signing up for classrooms and getting to know your students, think about your last journal entry. Many of you discussed how 'good' teachers are those who provide compassion and a listening ear, and also have a passion or interest for their subject. Now think about the difference between your K-12 experience and that of today's students. In what ways do you personally feel the impacts of COVID-19 and distance learning? How does it impact your learning? Do you prefer in-person or online learning environments? Why? What struggles or challenges do you think your students will face/are facing? Imagine you are 10 years old - could you attend school online? What aspects of these good teachers are needed for different age levels (for example, what do you think a 10-year-old attending school online needs in a good teacher vs what a 20-year-old needs in a good teacher)? How do you intend to be a good teacher for these students, regardless of the setting?
6 Initial Thoughts	Describe your experience in the classroom this week. What happened? What did you do? What did the students do? Did your teacher ask you to help teach at all? What were positive aspects of your experience? Negative aspects? How did these make you feel? Considering both the positive and negative aspects of this week's classroom experience, what will you do the same next week? What will you do different? Was there anything you felt you could have dealt with better? Why or why not? What did you learn from this experience?
	**If you have been unable to make contact and volunteer with a teacher by the time this journal is due, please email Dr. Peake and Jade and we will provide you with an alternative prompt.

7 Acclimating to the Teaching Environment	<p>7 What significant learning events happened in your classroom this week? What caused them to happen? How do you help support your teacher during the lessons? How is your presence benefiting the learning environment? What are some difficulties in the process of schooling?</p> <p>You may focus on:</p> <ul style="list-style-type: none"> ○ How the students responded to your hands-on activity ○ How the children interacted with you, the teacher, and each other ○ The students' attitudes toward the experiment or activity ○ How the teacher felt about and reacted to the activity ○ Anything you have gained from the experience.
8 Levels of Learners	<p>8 Choose one student who is an English language learner, gifted, or receiving special education services. Describe how that student interacts and learns in the classroom, but focus on practical, tangible steps you could take to reach that student more. How do both your teacher and you work with or accommodate this student? Does this student belong in your classroom? If so, why? If not, what type of class would be a better fit and why?</p>
9 Is teaching a profession?	<p>9 Law, medicine, and a few other fields are considered <i>professions</i>. There is a debate in education about whether or not teaching is a profession. For this journal, you will weigh in on the debate. View certification requirements at http://www.gapsc.com/ProspectiveEducator/routesToInitialCertification.aspx. Use your experiences teaching and observing your teacher as well as the requirements for getting a teaching certificate to support your argument for or against teaching as a profession.</p>
10 Teaching Styles	<p>10 At this point, you have been working with your teacher for a while. Compare and contrast your teaching style with your classroom teacher's teaching style. Discuss strengths and weaknesses for both you and your teacher. How do both you and your teacher seek to improve?</p>
11 As a Teacher, I will...	<p>11 Who are you going to be as a teacher? Whatever your profession, we are all teachers to some degree. Reflect on what you learned in this course about yourself and teaching and how will you integrate that into who you are going to be in the future.</p>
12 Reflecting on the Semester	<p>12 Reflect on your entire service-learning experience this semester. This should be 3-4 pages (double-spaced) in length.</p>

Data Analysis

Researchers utilized a content analysis approach to independently analyze participant journal entries for themes and codes related to the development of self-authorship. Researchers compared themes and codes and used respondent validation to verify their findings. Each participant was asked the same initial questions while remaining questions were tailored to the unique themes and codes identified from each individual's journal entries. These interviews were recorded, transcribed, and analyzed to verify themes and codes from participants' corresponding journal entries. Participant interviews were assigned a corresponding pseudonym and their information will be kept confidential.

According to King et al. (2009), the following themes related to self-authorship often emerge from developmentally effective experiences: increased exposure and recognition of diversity and viewpoints; better defined inner belief and values system; developed sense of identify; and increased responsibility and internal motivation to

learn. As such, this study ultimately looks to see if similar themes emerge from participants journal entries and interviews.

Limitations

Given the on-going coronavirus pandemic of 2019 – 2020, students attended classes in numerous formats. No student chose to attend class in person, so this limited our ability to recruit participants to the study as we were unable to directly speak with them. Students that did choose to provide consent for participation were mostly science majors who self-selected the course, often as a part of the university’s experiential learning course requirement, so the study results cannot be generalized to every student at the university given differences in age, major, background, etc. Furthermore, this study did not have an age limit; thus, study participants may already be differing levels of self-authorship given their educational and personal backgrounds. Correspondingly, researchers could not control for participants current level of self-authorship.

Results

Eight students were randomly selected and consented to participate in this research study. Table 3 illustrates assigned pseudonyms and related participant contextual variables.

Table 3.
Key for participant numbers and corresponding, assigned pseudonyms

Number	Assigned Pseudonym	Age	Year	Major	Minor
1	Rosemary	20	Sophomore	Biological Sciences, Psychology	Biology
2	Summer	21	Senior	Biology, Psychology	N/A
3	Kale	22	Senior	Biological Sciences	N/A
4	Marigold	22	Senior	Biological Sciences	N/A
5	Ginger	21	Senior	Biology	N/A
6	Sage	21	Senior	Psychology	Human Services
7	Basil	21	Junior	Psychology	Sociology
8	Sky	18	Senior	English	Political Science

Researchers utilized respondent validation to confirm themes, which included: participant background information, education, service-learning, experiences in service-learning, reflections in service-learning, self-authorship, and virtues/values. These seven themes fit with the model of reflection (Boud et al., 1985; Johns, 1995) used by researchers to write the journal prompts. As such, background, education, and service-learning fit under Stage 1, experiences in service-learning and reflections in service-learning fit under Stage 2 and Stage 3, respectively; and self-authorship and values/virtues fit under Stage 4.

Research Question One

Research question 1 sought to examine the degree to which journal prompt following the model of reflection (Boud et al., 1985; Johns, 1995) elicited the development of self-authorship in a service-learning course. From this objective, three themes emerged.

Service-learning

Service-learning experiences, when combined with critical reflection, allow students to construct meaning from their experiences and develop a sense of inner voice (Ash et al., 2005; Bringle & Hatcher, 2009). King et al. (2009) defined these as “developmentally effective experiences,” or experiences that promote an individual’s authorship. Participants were asked in journal 2 to describe their initial thoughts on and reflections about service-learning in general as well as this course more specifically. Table 4 illustrates themes the resulting themes.

Table 4.
Service-learning

Subtheme	Quotations from Participants
Interest in service-learning activities	6, Sage – “I think service-learning is a wonderful experience that applies real-world application to daily understandings.”
Personal definition of service-learning	1, Rosemary – “To me, service-learning means being a leader in your community and helping those who may not have the same experiences that I did.”
Why I chose Project FOCUS	4, Marigold – “My initial thoughts on service-learning are that you can either ‘walk the walk or talk the talk,’ but what happens when you ‘walk the talk?’” 3, Kale – “I wanted to join this class to gain more volunteer experience and to help make a difference in the [city] community.” 4, Marigold – “I signed up for Project FOCUS to provide a meaningful component to my last year in [city], because when I am stressed, it helps me to spread as much love and support to ground myself with what is important.” 6, Sage – “I chose Project FOCUS because I wasn’t really sure what it was about, but it was suggested by my advisor who knows me fairly well.”
Goals for the semester	8, Sky – “I know this should probably be some colorful reason as to why I chose this class, but honestly, I needed my requirement met for service-learning and I’ve always loved teaching (just in a higher level), so I just picked the first class that came up.” 2, Summer – “I also wish to identify and focus more attention on students who have fallen behind on work this last year.”
Feelings about the semester	7, Basil – “I also want to be understanding towards students who may not be able to complete assignments on time or focus on the assignment completely if it is being done during the session – [COVID-19] has proven to be much harder on that of children whose social situation has been limited to just those in their immediate family, so the need for understanding about behavioral issues is very apparent.” 1, Rosemary – “Before coming back to [school] in January, I was sitting in my living room with my mom going over the syllabus for Project FOCUS. I was very overwhelmed and did not know what to expect at all from this class, being that I had no teaching experience.” 6, Sage – “I think that I will benefit greatly from this experience because it will show me a real-world application and representation of what occurs outside of my college education bubble, while simultaneously feeling rewarded for helping children in their pursuit towards their own education.” 7, Basil – “When enrolling in this course, I found myself very doubtful of what I could add to an elementary school classroom; I did not have much confidence in myself when considering how I could help a STEM teacher with activities as science has never been a course that I have enjoyed or excelled in.”

Self-Authorship

Well-designed service-learning experiences, with corresponding reflective activities, contribute to students’ personal growth, often manifested as self-authorship (Felten & Clayton, 2011). As such, asking students to reflectively write about their experiences allows them to make connections from the classroom to their life (Baxter Magolda & King, 2008). Table 5 illustrates these connections made by the participants for their lives and work beyond the classroom.

Table 5.
Self-Authorship

Subtheme	Quotations from Participants
Using inner voice to apply class experience to outside world	<p>2, Summer – “In the future, I plan on applying what I understand about guiding students through lessons to epidemiology. Just like students, the general public contains many different people, so it is important to direct information rather than just provide information and hope for the best.”</p> <p>4, Marigold – “Overall, I learned that I have a sincere passion for serving children and that I am entering the correct profession. I am excited to serve as a pediatrician after the conclusion of this pandemic.”</p> <p>5, Ginger – “This class has helped me be more patient and understanding when teaching. I think it will help me when I am coaching, working with patients, or hopefully one day when I have children of my own.”</p> <p>7, Basil – “Not only did I find this classroom to be an insight to what that particular setting is like in an elementary school, but I also allowed myself to utilize this experience to see what I could hone in one in my own life in order to better prepare myself for how to care for patients in the future.”</p>

Values and Virtues

Journal 1 asked students which values or virtues they viewed to be most important. Subsequent prompts again addressed the manifestation of these values, because these core beliefs contribute to the development and confidence can contribute to inner voice (Baxter Magolda, 2008; Baxter Magolda & King, 2008; Kegan, 1994). Table 6 illustrates values and virtues participants identified as most important to them.

Table 6.
Values and Virtues

Subtheme	Quotations from Participants
Honesty and truthfulness	1, Rosemary – “It is crucial to be honest because it allows one to live a free life where he or she can be real with themselves and others.”
Compassion, empathy, and listening	4, Marigold – “I think that it is so important to share how you really feel about something instead of remaining quiet in a conversation or one worse: sharing the opinion that is common across the group setting.” 7, Basil – “I believe I am compassionate to a fault...I felt compassion towards all of the children, most specifically those that were seeming to have a hard time. I feel as though this will be used in my future endeavors of medical practices in my relations to patients.”
Creativity	2, Summer – “I think promoting creativity is extremely important and that is why I am a successful science student. I try to exhibit creativity wherever I can, and I try to promote it. It teaches you how to solve problems and encourages independence.”
Patience	2, Summer – “The patience I learned [from dealing with illness] can now be adapted for use in many other situations.”
Respect, justice	4, Marigold – “we need to respect differing opinions and thoughts, because we all have different backgrounds, traditions, and experiences.” 6, Sage – “Justice is important to me because I think all people should be moral about their choices and to know when they did wrong and apologize.”
Dependability, loyalty, responsibility, and trustworthiness	3, Kale – “Dependability is important to me and I always try to live by it by always keeping my word and to do what I say I will.” 8, Sky – “[T]he most important virtues to me are trust and loyalty. In a world run by social media and people being able to say whatever they want behind the comfort of a screen, it is really hard to trust people and their intentions. I just want to be surrounded by people who won’t do things behind my back or do things to hurt me intentionally.”
Kindness Generosity and magnanimity	5, Ginger – “It is very important to me to accept everyone and to spread kindness.” 7, Basil – “I am generous and magnanimous with those I care most about.”

Research Question Two

Research question 2 sought to identify participant variables that indicate the greatest likelihood of self-authorship growth. From this objective, two themes emerged.

Background

Individuals develop meaning-making structures over time as a result of their life experiences (King et al., 2009), all of which contributes to the development of inner voice and self-authorship (Kegan, 1994; Baxter Magolda, 2008). Journal 1 asked participants to describe and reflect on their life experiences thus far. Most indicated they were from [State], some from rural areas, others from a large metropolitan area; two were not from [State]. Some indicated they had not yet experienced any significant life challenges. These individuals summarized their experiences but offered little reflection on how this changed their outlook of life. Those who did describe life challenges discussed the importance of religion in overcoming their challenges or resulting change in career path. Table 7 highlights quotations from participants about their background.

Table 7.
Background

Subtheme	Quotations from Participants
About me	<p>2, Summer – “For most of my life, I have lived in Peachtree City, [State], most commonly referred to as the “bubble” or the land of golfcarts. Locals call it the “bubble” because the community is highly homogenous.”</p> <p>4, Marigold – “My hometown is Euharlee, [State], which yes is in the middle of nowhere.”</p> <p>6, Sage – “I grew up in Northeast Philadelphia until I was 17, then I moved to Lansdale, Pennsylvania which is a suburb outside of the city.”</p> <p>7, Basil – “I am from Brentwood, Tennessee. I have always lived in Brentwood, which is a smaller suburb of Nashville, and both of my parents grew up there as well.”</p>
Life challenges	<p>1, Rosemary – “One of the biggest challenges in my life was withdrawing from Organic Chemistry in Fall 2020. I have always been a straight A student, so failing at a class was not something that I was used to.”</p> <p>3, Kale – “I have been fortunate enough to not have any serious challenging experiences, however, recently my biggest challenge was preparing for the DAT (dental admission test). I did poorly the first time taking the exam, and realized I was lying to myself about how hard I was preparing. The next I took it I prepared much harder and received a much better score.”</p> <p>4, Marigold – “...the [State] Tech Admissions committee did not read my essay of know why I wanted to be a Yellow Jacket, but instead, they knew that I was not capable of their instruction. Were they correct? Absolutely not.”</p> <p>7, Basil – “An experience in my life that most challenged me occurred my freshman year of college when my mother had brain surgery to remove an acoustic neuroma on my 19th birthday...I did not get to be with her in that initial experience, so I had to result in returning home on the Friday that followed. In this experience, I was taught that most situations are out of your control and that you must learn to deal with experiences as they come – you cannot plan for the future entirely.”</p>
Life aspirations	<p>3, Kale – “I am planning on going to dental school after graduation.”</p> <p>7, Basil – “This situation also led me to find my calling in college; I initially was accepted as a pre-law student, but after experiencing the fast-paced life of a medical professional while I stayed in the hospital with her that weekend, I found that my calling was elsewhere.”</p>
Religion, faith	<p>8, Sky – “I am currently a senior at [University] graduating in December 2021 I am majoring in English and a minoring in Political Science with intentions to go to law school after graduating.”</p> <p>1, Rosemary – “As a result of withdrawing, I decided to audit the course to continue learning the material to be better prepared to take it the following semester. I learned to lean on God and trust him through everything. During this challenging time, my relationship with God grew immensely, and I feel like a new person.”</p> <p>4, Marigold – “To be honest with you, the University of [State] was not my plan, but it was God’s plan. I thought I was going to be a [State] Tech Yellow Jacket, and wow, I was wrong.”</p>

Education

Pizzolato (2008) discusses the importance of students connecting career choice and educational experiences with their past, present, and future selves. Students who engage in self-authorship are more likely to choose majors aligned with their interest. All of the participants noted the importance of education to them, usually as a result of their parents' viewpoints. Most discussed their favorite and least favorite educational experiences, and how these experiences shaped their desire to pursue certain college or career goals. Others chose certain majors or colleges to experience a different environment. Table 8 illustrates information about the participants' educational backgrounds.

Table 8.
Education

Subtheme	Quotations from Participants
Importance of education to me	<p>1, Rosemary – “Education is very important in my family. My great-grandfather, grandfather, and mother have all served as superintendent of their school systems. I was always encouraged and pushed to work hard to ensure that I succeeded in school.”</p>
Past experiences in education	<p>5, Ginger – “Education is the key to the future. Since I was a little kid, my parents have instilled in me the importance of education.”</p> <p>4, Marigold – “My favorite educational experiences were in my Advanced Placement (AP) classes with [teacher], because she taught me to self-care, study, and prepare for college.</p> <p>5, Ginger – “One of my least favorite experiences happened when I was in fourth grade. My teacher had favorites and I was not one of them.”</p> <p>6, Sage – “I loved to learn about local history of the Native Americans in fourth grade, and I loved when we discussed grammar and poetry because I found that I excelled in the subject matter.”</p>
Past challenges in my education	<p>3, Kale – “My least favorite educational experience was easily the semester I took organic chemistry II. It is by far the most challenged I’ve ever been academically.”</p>
Path to college (major, etc.)	<p>6, Sage – “My least favorite educational experience was in sophomore year of high school trying to learn geometry. As a perfectionist, it absolutely broke my heart to hear my teacher say that ‘most of you will only get C’s in the class.’”</p> <p>1, Rosemary – “From a young age, I knew I wanted to attend college here because I wanted to be a veterinarian, and I heard fantastic things about [University]’s Vet School.”</p> <p>2, Summer – “I decided to go to [University] because it was the simplest option for me. It is certainly not the most compelling or entertaining university acceptance story, but at the time, I needed to make a decision that I would not regret later on...I always knew that I wanted to go into the field of science because it is the only major or area of study that is real to me. Everything else is created by humans, but science is observing and understanding something that was already here.”</p>
Work and learning style	<p>6, Sage – “I stumbled on [University] by accident; I wanted to go far away from home for college because I felt very restricted in my town. I was tired of being around the same people, culture, and expectations.”</p> <p>7, Basil – “I was compelled to apply to the University of [State] because I had only applied to small, liberal arts colleges and wanted to include at least one larger school in the mix.”</p> <p>2, Summer – “Even though I am a science major, I draw, paint, sew, do woodwork, etc. I think promoting creativity is extremely important and that is why I am a successful science student.”</p> <p>5, Ginger – “One of my favorite educational experience was in high school, I went on a fieldtrip to the Bodies Museum in Atlanta. I enjoyed this experience because I was learning in real life and I am a visual learner.”</p>

Research Question Three

Research question 3 sought to consider whether a combination of service-learning activities and participant variables elicited self-authorship growth. From this objective, two themes emerged.

Experiences in Service-learning

Baxter Magolda and King (2004) proposed the Learning Partnerships Model (LPM) as a method for encouraging and helping students develop their sense of authorship. Specifically, the LPM encourages educators to validate students' knowledge and experiences and aid them in constructing meaning from these experiences (Baxter Magolda, 2014; Coughlin, 2015; Pizzolato, 2008). The participants described positive and negative experiences both within and outside of the university setting. From these experiences, three subthemes emerged, as illustrated by Table 9.

Table 9.
Experiences in Service-learning

Subtheme	Quotations from Participants
The [University] classroom as a variable	<p>1, Rosemary – “The journals ended up being one of my favorite aspects of the class because it allowed me to see how I was growing as a person and impacting the lives of my students.”</p> <p>5, Ginger – “The lecture part of this class was key part of success in the classroom at the elementary school. Although the lecture was over zoom and at times hard to connect with my fellow classmates due to them having their screens off or not showing up at all our professor did a good job trying to engage the students.”</p>
Individual experiences as a variable	<p>8, Sky – “I know that I have stressed this immensely throughout this journal, but Project FOCUS genuinely left me shell shocked. I was just trying to get my service-learning class to graduate next semester and instead I ended up in a class and experience that I would not have traded for anything.”</p> <p>1, Rosemary – “There was one major aspect that was negative. During one of the origami frog classes, a student became overwhelmed and said that she “couldn’t do it.” The student’s mother was sitting next to her and said a curse word while the student was unmuted to ask a question.”</p> <p>2, Summer – “Throughout this semester, I have learned more about each student’s circumstances, and I have started to enforce consequences for certain students when they forget their supplies.”</p>
Classroom teacher as a variable	<p>3, Kale – “By the end of the semester, I was rocking out workbook pages with my online students with ease, and they had all collectively learned a lot in math from the day I started helping them.”</p> <p>4, Marigold – “[My teacher] is a wonderful teacher because she is a strong servant leader. Her servant leadership is such an inspiration to me, and I am grateful for her passion for education.”</p> <p>5, Ginger – “My teacher wears many hats and is more than a person that just stands up at the front and teaches. She is a mother figure, a caregiver, a listener, and so much more. Mrs. Parr is empathic and a very kind soul.”</p> <p>7, Basil – “Throughout this entire process, Mr. Stanton’s activities have changed my perspective on what science can be to a child – my elementary school did not offer a STEM course, only core curriculum-based science where we were tested yearly on our achievements. The idea that this course is solely for the purpose of making children explore their creativity in different outlets is something that was very foreign to me but an aspect of school that I wish I had the chance to experience.”</p>

Reflections in Service-learning

Beyond the experience itself, educators should encourage and assist students in making their own meaning from their experiences by guiding them through reflection, thereby encouraging a shift from external to internal voice (Baxter Magolda & King, 2008; Pizzolato, 2008). This reflective process encourages students to confront conflicting ideas and emotions to further help them shape their view of the world. Table 10 illustrates the resulting subthemes.

Table 10.
Reflections in Service-learning

Subtheme	Quotations from Participants
Emotions experienced during service-learning	<p>1, Rosemary – “One of my favorite aspects of this class is seeing my students succeed. It fills me with such a sense of satisfaction and happiness.”</p> <p>3, Kale – “It was a really good learning experience for me to see how teachers, especially of young students, get through their day-to-day helping these students learn and grow, and I was very thankful for [my teacher] letting me help her class these past few months.”</p> <p>6, Sage – “A positive aspect of my experience was being able to interact with the kids. It is very empowering to help them achieve things and I get so excited when I ask them questions and they are eager to reply.”</p>
Lessons learned from service-learning	<p>7, Basil – “I truly enjoyed this course in its entirety, no matter how long it took me to find my teacher and how difficult a particular day seems to be; I always returned home, refreshed and energized, due to the feeling of accomplishment I received from the children and experience in the classroom.”</p> <p>2, Summer – “Many people lose their creativity as they age, so I think we should care more about creativity. It teaches you how to solve problems and encourages independence.”</p> <p>4, Marigold – “To summarize what I have learned through my participation in Project FOCUS, I can explain it in three components: patience, communication, and time management.”</p>
What it means to be a teacher	<p>8, Sky – “I have learned that sometimes things don’t go as plan and that you need to be able to adapt on your feet to make the best experience possible. When you adapt to the day and the moods that everyone is in during the day, you allow everyone to be at their peak performance even if it wasn’t the original plan.”</p> <p>1, Rosemary – “As a teacher, I will be a mentor to my students. I have always relied on those older than me to help me through life and give me guidance.”</p> <p>4, Marigold – “As a teacher, I aspire to be encouraging and listening twice as loud as I speak, because these students need positive attention and hope for their future.”</p> <p>5, Ginger – “As a teacher, I will be a positive light for students to look to for inspiration. I will be an out of the box teacher, who will explain something five different ways in order for a student to understand it.”</p>

Conclusions

This research study overarchingly sought to determine whether service-learning courses, particularly the course taught by the researchers, guided students toward recognizing and developing their inner voice.

Themes determined from participants' journal entries indicate service-learning experiences, when combined with opportunity for critical reflection, do elicit a development in inner voice, or at the very least, engage students in recognizing their internal dialogues. Several participants noted the benefit of classroom activities – discussion with other classmates, instructor or teacher support, and reflective journal entry assignments – in helping them make meaning of their experiences. Others drew on their past experiences and challenges to shape how they acted and thought as a teacher for the students they were helping. Many participants noted they found it impactful or disheartening to learn about their students' backgrounds; this conflict often served as an opportunity for the participants to re-consider their view of the world, at least from an educational sphere. Despite the focus of the course, and the fact that many enrolled to fulfill the university's experiential learning course requirement, participants overall appeared to develop a stronger inner voice.

Research Question 1

Data from journal entries revealed themes regarding participants' initial thoughts of service-learning, level of self-authorship, and strongly held values and virtues. The former theme effectively acted as a litmus test, and revealed participants generally felt positive about engaging in service-learning. Participants indicated these experiences tested their ability to be authentic leaders who live by strong values. Almost all touched on the real-world applications of the lessons they learned from their actual experience. These themes, particularly the latter two, reflect development in the participants' meaning-making structures; participants described that these lessons helped them rethink their career choices or outlook on real-world problems. Thought these journals purposefully guided participants through their experiences, researchers concluded, to some degree, this course did enable students to become more self-authored as they all emerged with a better understanding of the purpose of service-learning for their lives beyond the educational setting.

Research Question 2

Participants provided details regarding their age, upbringing, and educational background. Those that discussed their past challenges, especially challenges they classified as significant, appeared to be further along the continuum of developing their sense of internal voice. Essentially, they had a more well-formed meaning-making structure for internalizing both personal and worldly events.

Participants who described more significant challenges also wrote about the importance of empathy and compassion for students facing similar challenges. These participants seemed easier able to voice from their internal perspective why they were empathetic for the students they were helping. In other words, participants used their internal voice to yet again draw connections between their past experiences and values to provide comfort and make meaning of other's hardships.

In contrast, most participants were relatively externally defined regarding the importance of education. Most had parents who continually emphasized the importance of school, so almost all participants expressed a similar viewpoint.

Research Question 3

Researchers further sought to determine whether either the service-learning experience or the reflections had from the experience elicited self-authorship, or whether it was the combination of both the experience and the reflections had that caused self-authorship. Generally, when prompted, students provided detailed accounts of their experiences; researchers also guided participants by providing prompts that asked participants to consider their feelings and learning, too. Researchers found this did increase students' engagement in considering their inner voice. However, whether the researchers as course instructors or the reflective abilities of the participants themselves had a greater impact is uncertain. Nonetheless, journal prompts 11 and 12 were considerably less structured than journal prompts 1 and 2, yet, participants actively reflected on and described the applications of their service-learning experiences.

Future Research

Future studies should consider examining the effect of critical reflection in other service-learning course disciplines, as well as more time and experience-intensive settings. For example, career-focused internships may be one setting where the development of self-authorship may be even more apparent, especially if students self-select for interest and intended career path. Future studies may also consider examining the impact of critical reflection on eliciting self-authorship where there is no university requirement for experiential learning courses. Such a study may benefit from more of intrinsically motivated attitude rather than an extrinsically motivated attitude.

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