Feeling Prepared?
Institutional Satisfaction, Vocational Discernment and Sophomore Thriving
Umaimah Choudhury, Vanessa Miller, and Nina Vang
SOAN 371: Foundations of Social Science Research – Quantitative Methods
St. Olaf College, Fall 2019

Executive Summary

In the fall of 2019, the Sociology/Anthropology 371 students conducted research on sophomore thriving at St. Olaf College. We sent an anonymous online survey to all 764 sophomores and received 248 responses (32.5%). Our sample reflects many demographics of the student body, and it meets the "rule of thumb" for a 30% sample of a population of 1,000 or less.

Prior studies have found that thriving is shaped by institutional support, high impact practices, self-efficacy, and the topics of our team's research, vocation and career discernment and institutional satisfaction. Our research focuses on five main questions:
1. *How does institutional satisfaction relate to sophomore thriving?*
2. *How does institutional support relate to sophomore thriving?*
3. *How does preparation for future vocation and career relate to sophomore thriving?*
4. *How does Piper Center use and satisfaction with resources relate to sophomore thriving?*
5. *How does Quo Vadis attendance and impact (whether it helped with career-discernment) relate to sophomore thriving?*

The most important results of our research are as follows:
- Scoring highly on institutional satisfaction is associated with higher scores on thriving.
- Respondents who scored high on feeling that St. Olaf prepares them to succeed in future vocation tend to report higher levels of thriving.
- Piper Center use and satisfaction were not associated with overall thriving.
- Students who attended Quo Vadis and felt it assisted them in career discernment tended to report higher levels of institutional satisfaction and thriving.

Based on our research, we offer three recommendations:
1. Because institutional satisfaction is associated with higher scores on thriving, we recommend that St. Olaf take action to promote institutional satisfaction among students. For example, St. Olaf could attempt to project stronger messages about the long term positive benefits of a St. Olaf education. Additionally, we suggest that St. Olaf identify and highlight aspects of the college that are unique to St. Olaf.
2. Because of the association between feeling prepared for a future vocation and thriving, we suggest that St. Olaf encourage faculty to incorporate real-world applications in curriculum and coursework. We also suggest that the college do more to train students in skills they will use after college. For example, the college could offer classes that are applicable to future careers through bringing in guest speakers who work in major-related careers, having professors better inform sophomores about major-related career opportunities, etc.
3. Since attendees who found Quo Vadis helpful tended to thrive more, St. Olaf could make Quo Vadis more accessible through improving the convenience of the date, increasing frequency of the retreat, and reducing the sophomore homework load at that time.

Literature Review

The term 'thriving' has been emphasized in relation to the undergraduate experience by Schreiner (2010), under increasing scrutiny of what 'success' in undergraduate years has meant. Schreiner has established the groundwork for scholarly discussion of thriving, examining the concept through three main dimensions: academic (characterized by engaged learning and academic determination), interpersonal (social relationships) and intrapersonal (healthy attitudes towards self and towards the learning process). According to Schreiner (2010), thriving includes social involvement and overall feelings of connection; success in undergraduate educationis an achievement beyond mere academics.

Over the past decade, scholars have reached a consensus that defining success in undergraduate education includes more than a high GPA. In recent years, scholars have begun to explore gaps in the undergraduate experience where students are least likely to thrive, identifying sophomore year as especially at risk. Scholars cite the sophomore experience as vulnerable to a decline in student thriving through examining measures such as retention (Horton 2015) and lack of class-specific programs and resources (Gregg-Jolly et al. 2016). In applying the dimensions of thriving to programs and experiences of sophomores in particular, scholarship has isolated areas of the sophomore experience critical to thriving. These areas include institutional programs (Seppelt 2016), high impact practices (such as internships, learning communities, and study abroad programs) (Kuh 2008), academic self-efficacy (Wand and Kennedy-Phillips 2013), institutional commitment (Wand and Kennedy-Phillips 2013), retention (Horton 2015), social relationships (Schreiner 2010; Turner et al. 2014; Strayhorn 2008; Seppelt 2016), and health and wellness (Becker 2009).

Students' perceptions and their plans for the future have been shown to be increasingly important for sophomore thriving. In exploring how to improve sophomore thriving, scholars such as Gregg-Jolly et. al (2016) have identified key challenges for sophomore students, such as uncertainty with vocation and career. As described by Gregg-Jolly et al. (2016), sophomore year is especially difficult because of the challenges in career and vocation discernment. Sophomores are at a point in their college years where choosing a major and career path becomes more pressing for their future. Gregg-Jolly et. al (2016) describes how this struggle in career and major discernment impacts both personal relationships and academic choices.

Social and personal aspects of life have also been shown to be important to overall student thriving. Alongside vocation and career, studentss perceptions of institutional support are also linked to overall thriving (Strayhorn 2008; Shin et al. 2016). Additionally, scholars articulate the importance of social relationships (Turner et al. 2014; Strayhorn 2008; Gregg-Jolly 2016; Seppelt 2016) and the role of identity in shaping overall growth. career discernment and overall satisfaction for students (Shin and Steger 2016; Sweat 2013; Schreiner 2010; Greg-Jolly 2016). The purpose of this literature review is to examine how vocation and career discernment, institutional satisfaction, and perceptions of personal growth contribute to overall student thriving, and to reveal the current discussions and debates within the literature on the topic.

In examining challenges particular to sophomores' vocation and career discernment, Douglass and Duffy (2015) and Hunter et al. (2010) identified the search for a 'calling' as integral to the sophomore experience and important for sophomore thriving. Scholarly literature broadly defines calling as an internal or spiritual desire to pursue a certain vocation or career. Hunter et al.'s (2010) research categorizes students' definitions of calling into themes of spiritual guidance, personal well-being, and a desire to make a positive difference in the world. The impact of a sense of calling aligns with the work of Douglass and Duffy (2015), whose research

found that feeling a sense of calling for a vocation or career can promote greater career adaptability, defined as the readiness to pursue the necessary steps for career and vocational development. Douglass and Duffy (2015) explain that greater career adaptability promotes greater self-efficacy in career discernment.

Just as calling is important for overall thriving, so too is institutional support. Shin and Steger (2016) and Strayhorn (2008) examine how students' perceptions of institutional support and their feelings of college being worthwhile for their future are important for thriving. Shin and Steger (2016) found that students who feel their college or university supports vocational searching report higher perceptions of meaning in their own life. This builds on the scholarship of Strayhorn (2008), who found that students who perceive themselves to be doing meaningful work during their undergraduate years and who feel supported to pursue such work report higher levels of overall life satisfaction.

In addition to institutional support, scholars have found that institutional commitment also influences student thriving, impacting students' social involvement and overall satisfaction. Wang and Kennedy-Phillips' (2013) study on institutional commitment, defined as a student's confidence in and satisfaction with their institution, found that it had a strong effect on all five types of involvement measured: classroom engagement, independent learning, academically-related interaction, social interaction with peers, and social interaction with faculty and advisors. According to Schreiner (2010), institutional commitment and satisfaction are important aspects of thriving.

Scholars also cite identity as intrinsic to overall thriving and note its relationship to institutional satisfaction. Studies of college students with marginalized identities (including but not limited to race/ethnicity, gender, and sexual identity) found that students' sense of belonging to the institution has a strong impact on their personal, social, and academic growth. Schreiner (2014) identifies four key areas in her research where experiences of students of color and white students contrast: campus involvement, student-faculty interaction, spirituality, and sense of community on campus. Schreiner (2014) highlights how these contrasting experiences lead to differences in overall thriving, with white students tending to thrive more. Schreiner (2014) also notes the underrepresentation of students of color in prior research and how this may affect current perceptions of aspects of college thriving.

Not only does identity influence institutional satisfaction as identified by Schreiner (2014), but also institutional commitment and sense of meaning. Complementing the work of Wang and Kennedy-Phillips (2013) on how commitment to the institution impacts thriving, Strayhorn (2008) illuminates how increased campus involvement and student-faculty interaction (which encourages thriving) are influenced by identity. Strayhorn (2008) describes how campus involvement often leads to greater interaction with faculty, but these interactions are manifested differently for each demographic group., Those who identify as female, Asian Pacific Islander or Black tend to report higher levels of perceived personal and social growth than their white or male counterparts.

Gaps in prior research include homogeneity of samples, lack of awareness on the impact of vocation and career discernment on thriving, and a failure to specifically target the sophomore experience. The first gap is that prior research lacks diversity (in terms of socioeconomic status, ethnicity, religious affiliation, and country of origin) in sample populations. In our study, we met the 30% 'rule of thumb' threshold for small populations. Through gathering data from respondents with a variety of identities and backgrounds, we are able to generalize our findings to our target population of St. Olaf sophomores. Secondly, prior research has failed to

specifically target vocational and career uncertainty along with institutional satisfaction as a main focus to interrogate sophomore thriving. In our analysis, we examine factors related to career uncertainty and the role of career related resources in thriving. Finally, much of the prior research has failed to target sophomores in particular. Through distributing our survey to only sophomores, we ensure the results of our findings are targeted to this demographic.

Despite the gaps in prior scholarship, literature on sophomore thriving is applicable to sophomores at St. Olaf College in their exploration of vocation and career discernment, and helped inform our study. Scholarly literature provides the groundwork for our investigation of career and vocation discernment, institutional satisfaction, and personal growth. The work of Schreiner (2010) lays the foundation for defining thriving for sophomore students and the importance of factors aside from GPA in measuring success. In building on Schreiner's definition of thriving, Shin and Steger (2016) and Strayhorn (2008) emphasize the need to examine institutional commitment and satisfaction in investigating sophomores. Additionally, Hunter et al. (2010) and Douglass and Duffy (2015), in their broad definition of calling, provide the basis for analyzung students' perceptions of calling in the St. Olaf environment. Finally, Schreiner (2010; 2014) and Strayhorn (2008) identify the need to carefully consider demographics and individual students in association with the aforementioned factors.

Methods
Data Collection
In order to study the impact of vocational and career discernment on overall sophomore thriving, we surveyed sophomore students at St. Olaf College in Northfield, Minnesota, a small Christian liberal arts institution. Our survey questions were part of a larger survey administered to sophomores. It included closed- and open-ended questions about the use of the Piper Center (a vocation and career center on campus), vocation/career discernment, and satisfaction with St. Olaf College. In order to bridge the gap between scholarly research on sophomore thriving and real life experience of sophomores at St. Olaf College, we conducted a focus group with five sophomores and one junior to probe about areas of sophomore thriving before constructing our survey.

We sent an online, anonymous survey to all sophomores in the St. Olaf student body in order to maximize the likelihood that our results would be statistically significant. We sent the survey to sophomores' college email addresses. In order to encourage survey participation, we invited respondents to enter a drawing for a chance to win one of 20 gift cards, each for $20. In order to encourage higher rates of participation, we sat at a table outside of the St. Olaf cafeteria with candy and advertised the survey's existence and purpose, announced the survey in classes, sent a message to the St. Olaf Class of 2022 Facebook page, and put up signs around residence halls. The survey was open for one week in November 2019.

Variables and Measurement
For our study, the main dependent variables we wanted to examine were the dimensions of thriving specific to our research inquiry; institutional satisfaction, institutional support, and vocation and career discernment. We measured satisfaction with the institution with items such as "If I could do it over again, I would choose a different college or university to attend," and "I am confident that the amount of money I'm paying for my St. Olaf education is worth it in the long run," with five ordinal response options from strongly agree to strongly disagree. To measure institutional support and encouragement, we used five items including "Staff (including professors, advisors, etc.) encourage me in my ideas about vocation and career," and "I feel

discouraged from exploring different academic subjects at St. Olaf," again with five ordinal response options that ranged from strongly agree to strongly disagree. Finally, in exploring vocational discernment, we used survey items such as "My classes at St. Olaf have made me curious (or more curious) about possible career paths" and "St. Olaf prepares me to succeed in my future vocation and career," and also provided five ordinal response options ranging from strongly agree to strongly disagree.

Our dependent variables included open-ended demographic questions about gender, race/ethnicity, sexual orientation, and disability. We also asked about first generation, international, and transfer student status in a nominal, yes/no format, and about students' GPA in an interval format. Other independent variables we used included feelings of external support, such as support from a "work boss or supervisor (who is not a student)" or "faith leader(s) on campus,'' with five ordinal responses from not supported to extremely supported; and feelings of positivity: "I keep a positive perspective," and "I give up on the situation or walk away from it" again with five ordinal responses from "Not at all" to "To a large extent."

We also asked questions requested by our client, a committee of St. Olaf stakeholders, about the Piper Center (St. Olaf College's center for vocation and career) and Quo Vadis (a two day sophomore retreat intended for major and career exploration). We treated these as independent variables and measured the impact of students' use of or participation in them against aspects of thriving. We constructed two matrices with a total of twelve items about the Piper Center, aimed to identify how helpful students felt Piper Center resources were and whether they felt comfortable utilizing those resources. The Piper Center items had response options ranging from very satisfied to very dissatisfied and from a very large extent to not at all. Regarding Quo Vadis, we included one yes/no question about participation and, for those who did not attend, an open- and a closed-ended question asking them to explain why. For those who did attend, we used a matrix question to ask their opinion of how helpful they found Quo Vadis.

We divided most of our survey items into seven indexes. These were indexes of perception of institutional satisfaction, perception of institutional support, institutional response, positive perspective, usage of the Piper Center, satisfaction with Piper Center resources, reasons for not attending Quo Vadis and the benefit of Quo Vadis in assisting with career discernment. These indexes allowed for a broader and more efficient examination of variables that affect our dimensions of thriving.

Validity, defined by Neuman (2012) as the extent to which a concept measures what it is intended to meaure, was an important consideration in constructing our survey. We ensured that our measurements captured our conceptual definitions through carefully defining terms and consulting scholarly literature on the topic. In the construction of the survey, we achieved face validity, the degree to which a test appears to measure the variable that it is supposed to measure, through having an expert in the field verify our measures (Neuman 2012). In addition to face validity, we achieved content validity, the extent to which a measure reflects the dimensions included in its conceptualization, by carefully referring back to our conceptualizations.

To improve the reliability of our research, we specified the conceptualization and operationalization of our dimensions of thriving through drafting survey questions that accurately reflected what we wanted to learn from our respondents. After drafting our survey questions, we worked through many rounds of editing. We used the most precise levels of measurement possible, choosing ordinal measures over nominal where appropriate and using the best fitting response options for our matrices, including options of "not applicable" and "don't know." We

also included a reverse-worded question in the middle of one matrix in order to prompt respondents to stay attentive to answering honestly and carefully. Additionally, we used multiple indicators (or questions) to measure specific items, improving reliability for each dimension of thriving that we analyzed, utilizing matrices that cover multiple survey items to make the survey more respondent friendly. Once we established the final draft of our survey questions, we pre-tested them with other researchers to ensure clarity.

Sample and Sampling Procedure
The target population for our survey was the whole sophomore class of 2022 at St. Olaf College. We invited all sophomores in order to attain statistically significant results not easily achieved with a small pool of respondents. To provide an incentive for survey response, we offered all participants the chance to be in a drawing for various gift cards.

Of the 248 respondents who reported their gender, 58.5% (145) identified as female, 21.4% (53) identified as male, 0.4% each (1 each) identified as non-binary, transgender male, and queer, and 0.8% (2) responded "not sure." In terms of race/ethnic categories, 58.1% (144) identified as white, 7.3% (18) identified as Asian American, 6.5% (16) identified as Latinx/Hispanic, 6.5% (16) bi/multi-racial, 2.4% (6) identified as black or African American, and 0.4% (1) identified as Middle-Eastern. Furthermore, 8.1% (20) of our respondents were international students, 74.2% (184) were domestic students, 15.7% (39) were first-generation college students, and 11.7% (29) of our sample identified as having a disability. In an open-ended question about sexual identity, 57.7% (143) responded as Heterosexual, 11.3% (28) as Bisexual, 2.4% (6) as Gay/Lesbian, 2.0% (5) as Queer, 1.6% (4) as Pansexual, 1.2% (3) as Questioning, and .8% (2) as Asexual. When asked about their religious affiliation, 28.2% (70) of respondents self-identified as Christian: Not Lutheran or did not specify,11.7% (29) as Christian: Specified Lutheran, 2.0% (5) as Questioning or unsure, 1.2% (3) as Muslim, 0.4% (1) as Buddhist, 0.4% (1) as Pagan, 0.8% (2) as Hindu, and 24.2% (60) as no religion.

Ethical Considerations
In consideration of the ethical standards of scientific study, our research underwent IRB approval through St. Olaf College. We also completed ethical training to ensure our methods met the standard practice for sociological research study. Our study sought to maximize the benefits to respondents and minimize overall risk through ensuring informed consent and anonymity. Our email to respondents assured them of anonymity for their responses, informed them of participation being voluntary (the email expressing how logging into the survey constituted as consent), and provided information on sponsors, the purpose of the survey, the benefits to participants, and where students would be able to learn about the research results.

Some students surveyed included vulnerable populations, such as those lacking citizenship or those highly dependent on St. Olaf for financial aid or employment which could be impacted if their responses to the survey were made public. To address the issue of possible harm in terms of academic standing, incrimination, employment and so forth, we protected privacy for all students. By making respondents' identities unknown to researchers through coding respondent identities as numbers, we could not tie responses to any specific individual, and thus we made the survey anonymous. In order for respondents to enter into the gift card drawing, they were required to send a separate email indicating a desire to enter. Through anonymity in survey responses, we ensured the minimization of risks to participants.

Results and Discussion

Introduction

We investigated the relationship between institutional satisfaction, vocation and career discernment, and sophomore thriving. In the following section, we investigate these variables and their relationships to each other. In our analysis, we sought to answer five main questions:

1. *How does institutional satisfaction relate to sophomore thriving?*
2. *How does institutional support relate to sophomore thriving?*
3. *How does preparation for future vocation and career relate to sophomore thriving?*
4. *How does Piper Center use and efficacy on campus relate to sophomore thriving?*
5. *How does Quo Vadis attendance and impact (whether it was effective in assisting students in career and vocation discernment) relate to sophomore thriving?*

In order to investigate these questions, we first created a measure summarizing sophomore thriving at St. Olaf College. In order to do this, we consulted prior literature and created a Thriving Index of 15 survey items in five dimensions (three items per dimension) by summing the scores for the responses to these items. These dimensions were engaged learning, academic determination, positive perspective, diverse citizenship and social connectedness. The summarized results of the items included in the index can be seen in Table 1 below.

Table 1. Percentage Results for Dimensions of Sophomore Thriving

Dimension of Sophomore Thriving (all included in Sophomore Thriving Index)	Highest 5	4	3	2	Lowest 1
Engaged Learning					
Apply skills from class to other areas of life (A)	30.0	49.8	16.1	4.1	0.0
Think about course learning even when not in class or studying (A)	34.6	48.8	11.5	5.1	0.0
Participate actively in class (A)	25.8	50.7	13.8	8.8	0.9
Academic Determination					
Grades are a top priority (A)	54.9	33.5	4.2	6.5	0.9
Tend to go beyond assignment requirements (A)	9.7	26.9	31.5	24.1	7.9
*Regularly procrastinate on school work (A)	12.1	16.4	18.2	34.6	18.7
Positive Perspective					
Feel hopeful about future after graduation (A)	41.0	39.7	9.8	7.3	2.1
*Respond to stress by giving up or walking away (E)	2.4	7.7	16.3	35.6	38.0
Maintain positive perspective (E)	12.6	23.7	36.2	21.7	5.8
Diverse Citizenship					
Have friendships across racial/ethnic identity (S)	28.1	22.7	31.0	6.6	11.6
Have friendships across political identity (S)	35.1	34.3	19.4	7.0	4.1
Desire to contribute to the world motivates co-curricular involvement (I)	23.4	31.1	24.7	14.9	6.0
Social Connectedness					
Respondent and friends listen to each other (E)	38.8	44.9	13.9	2.0	0.4
Believe St. Olaf friendships will last beyond graduation (E)	25.8	32.4	30.3	9.0	2.5
Feel valued by St. Olaf College (A)	26.8	37.2	19.9	12.1	3.9

*Reverse-coded items (worded negatively; coded in opposite direction from most items)
All items were measured on 5-points scales: A = strongly agree to strongly disagree; E = very large extent to not at all; I = extremely important to not at all important; S = very similar to very dissimilar

Respondents tended to cluster in the top two categories (more than half scored 4 or 5) for all of the positively worded items except *Tend to go beyond assignment requirements*, and they tended to cluster in the bottom two categories (more than half scored 1 or 2) for negatively worded items (*Regularly procrastinate on school work* and *Respond to stress by giving up or walking away*). Unfortunately, however, as the table shows, some respondents scored low on the positive items and high on the negative items.
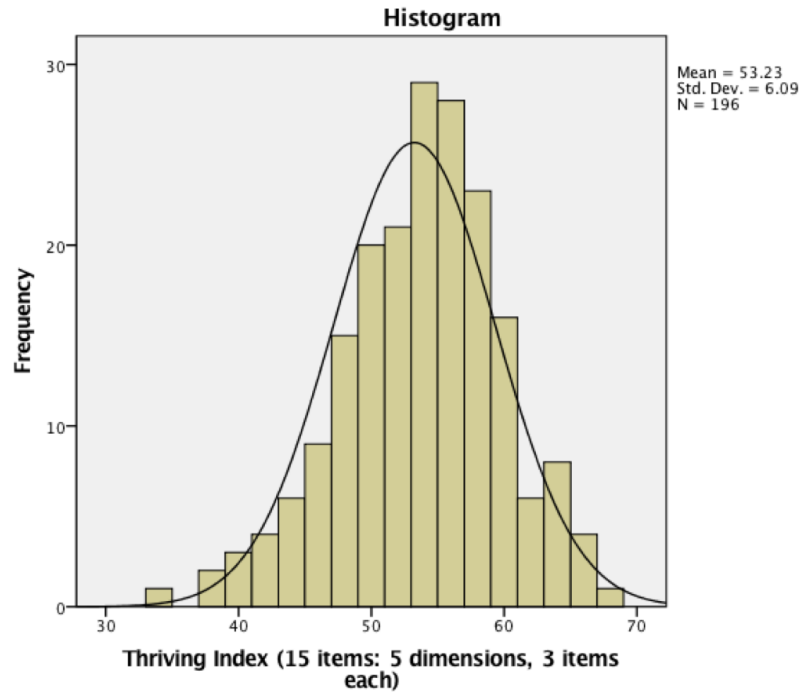

Figure 1: Overall Thriving of Sophomore Students

Figure 1 illustrates the overall thriving of sophomore respondents measured in five dimensions. The distribution of thriving scores is normal among sophomore students, with scores ranging from 34 to 68, and with a mean of 53.23. Approximately 68% of scores ranged from 47.23 to 59.23.

Question One: How does institutional satisfaction relate to sophomore thriving?

Our first question was about the role of institutional satisfaction and thriving. Schreiner (2010) describes the importance of institutional satisfaction and commitment for thriving among college students., and we wished to investigate the levels and roles of institutional satisfaction in thriving at St. Olaf College. We used three survey items to examine respondents' levels of institutional satisfaction, as shown in Table 2 below.

Table 2. Percentage Responses to Institutional Satisfaction Items

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree	Don't Know
If I could do it over again, I would choose a different college or university to attend.	6.0%	15.4%	12.4%	23.9%	37.2%	5.1%
I am confident that the amount of money I'm paying for my St. Olaf education is worth it in the long run.	13.7%	35.5%	20.5%	18.8%	6.4%	5.1%
I feel proud to be an Ole.	35.9%	36.8%	19.2%	5.1%	2.1%	0.9%

Responses to the three institutional satisfaction items were mixed. As shown in Table 2, 21.4% of respondents indicated they either strongly agreed or somewhat agreed that they would have chosen a different institution to attend, 49.2% indicated they either strongly agreed or somewhat agreed that they are confident that a St.Olaf education is financially worth the investment, and 72.7% indicated they either strongly agreed or somewhat agreed that they are "proud to be an Ole."
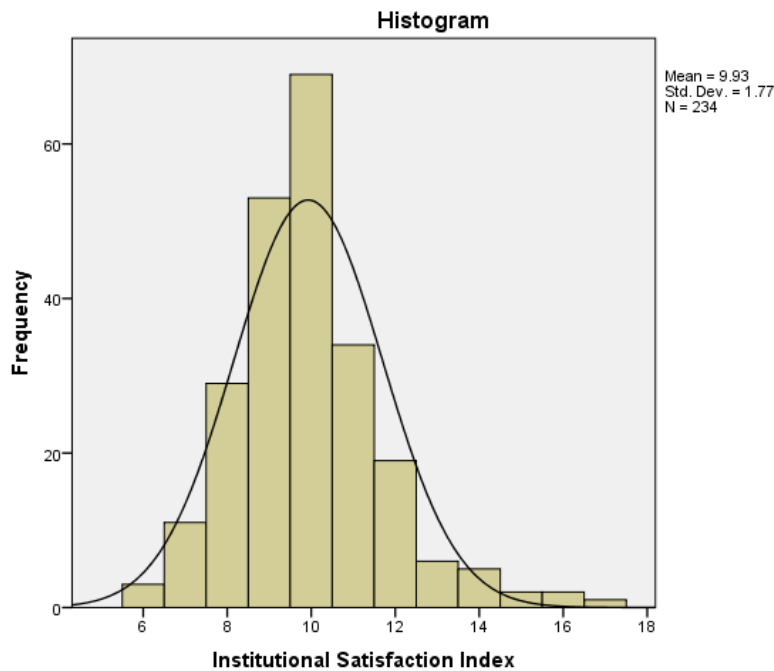
Figure 2: Institutional Satisfaction Index, three items.

Next, we created an index of institutional satisfaction, a summary score compiled through asking the three survey items in Table 2 relating to institutional satisfaction. Scores ranged from 6 to 17, with an average score of 9.93. As pictured in Figure 2, 68% of respondents scored between 8.16 and 11.7.

Upon constructing our Institutional Satisfaction Index, we examined the relationship between identity and institutional satisfaction. We first tested the relationship with first generation status. Respondents were divided into first-generation or non-first-generation. The mean (average)

score for first-generation students was slightly lower (m=13.92) than the mean score for non first-generation students (m=14.02; sd=.095), but we found no significant correlation between the two groupsh, with a p value above .05 (t=.199; p=.422).

We also tested the relationship between religious affiliation and institutional satisfaction. We found a weak, nonsignificant correlation (r=-.029; p=.355) meaning there is no relationship between the two variables. Despite St. Olaf being a religiously affiliated college, a sophomore identifying as Christian does not impact their institutional satisfaction, on average.

Upon examining the role of identity in institutional satisfaction, we asked the question: W*hat is the relationship between institutional satisfaction and thriving?* In order to answer this question, we tested the relationship between our Institutional Satisfaction Index and our Thriving Index. Based on the results of this test, we can confidently say there is an association between higher scores on institutional satisfaction and higher scores on thriving (r=.293, p=.000).

A particular item of Institutional Satisfaction we wanted to focus on was the relationship between feeling that St. Olaf is financially worth it and thriving. We did this through testing the relationship between our Thriving Index (see Table 1, Figure 1) and a survey item asking respondents to rate the degree to which they felt St. Olaf was financially worth it. Our results showed a moderate, positive correlation (r=.292, p<.05). This means that the more a student feels that their St. Olaf education is worth it, the higher they tended to score on overall thriving.

We also wanted to focus on the relationship between being 'proud to be an Ole,' race/ethnicity, and thriving. This was done through comparing the relationship between respondents' ratings on the degree to which they were 'proud to be an Ole' (from strongly agree to strongly disagree) with their scores on our Thriving Index.
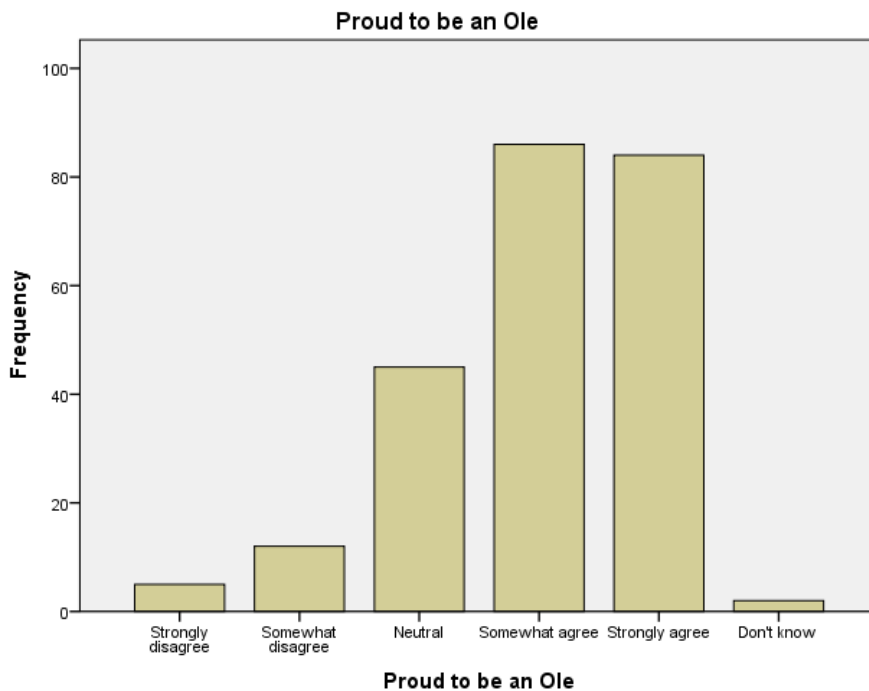

Figure 3: Frequency of Proud to be an Ole

Ratings on being 'proud to be an Ole' were relatively high, with over 68% of respondents agreed to some degree that they feel proud to be an Ole.

We then asked the following question: *What is the relationship between race and being 'proud to be an Ole'?* We found a moderate and significant relationship between the two variables (Cramer's V=.223; p=.038), illustrating that students of color tend to rate lower on their feeling of 'proud to be an Ole.'

We next asked the question: *What is the relationship between being 'proud to be an Ole' and thriving?* To answer this, we tested the relationship between responses to 'proud to be an Ole' and scores on our Thriving Index. There was a moderate-strong positive correlation between the two (r=.410; p=.000). This means that the more a student felt proud to be an Ole, the higher they tended to score on the Thriving Index.

Our results support prior research. Wang and Kennedy-Phillips (2013) illustrate the connection between institutional commitment and thriving; those who feel more committed to their institution are thriving more. Wang and Kennedy-Phillips (2013) also highlight the connection between identity and social involvement and sense of community, describing how students of color are more vulnerable to feeling less socially connected and are thus less likely to feel proud of their institutions. Overall, our findings that students of color feel less institutional pride and that students who feel more institutional pride tend to thrive more confirm prior research.

Next, we investigated students' perceptions of institutional responses to some issues on campus. To do this, we created an index of three items measuring the degree to which respondents feel the institution responds to identity-based discrimination, sexual assault, and mental health-related incidents, shown below in Table 3.

Table 3. Percentage Responses to Institutional Response Items

	Highest 5	4	3	2	Lowest 1
I believe St. Olaf responds well to identity-based discrimination	14.9%	24.6%	29.8%	19.4%	5.6%
I believe St. Olaf responds well to sexual assault and violence	14.1%	27.8%	27.8%	17.7%	6.9%
I believe St. Olaf prioritizes student's mental health.	12.4%	38.9%	19.2%	21.4%	7.7%

Items one and two were measured on a 5-point scale, and item three had a sixth option of don't know (Strongly agree, somewhat agree, neutral, somewhat disagree, strongly disagree; strongly agree - strongly disagree and don't know).

Each item was scored on a scale of 1 to 5, with scores in the index ranging from 3 to 15. As seen in Figure 4, 50% of respondents rated St. Olaf's ability to respond a score of 10 (mean = 9.79) or higher. About two-thirds of the respondents gave St. Olaf a score between 7 and 12.8.
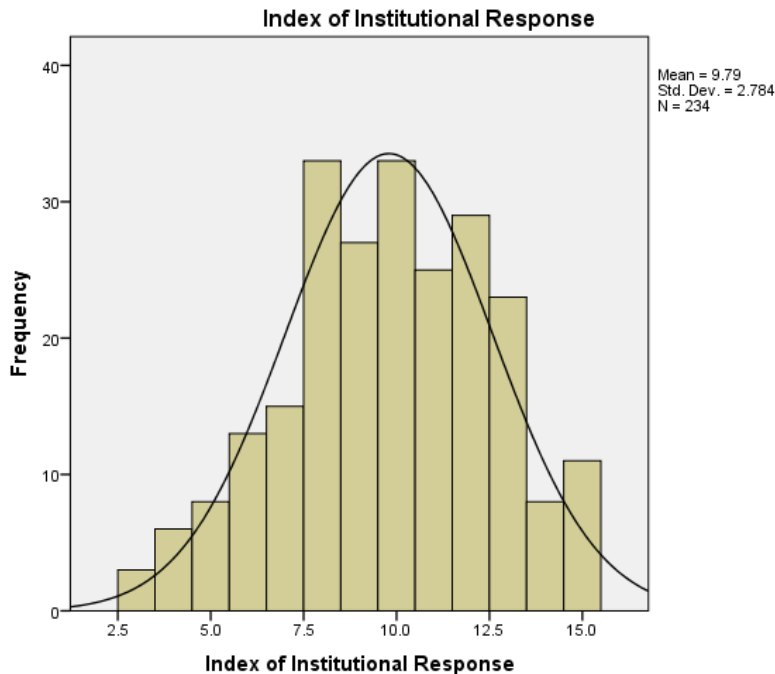
Figure 4: Institutional Response Index

Next, we asked about the relationship between perceptions of institutional responses and institutional pride. We did this through comparing our Institutional Response Index with our survey item asking respondents to rate the degree to which they felt 'proud to be an Ole.' We found a significant, positive relationship between the two (r=.372, p<.05). The more a student feels the college responds well to student issues, the higher they tended to score on being 'proud to be an Ole.'

Next, we tested the relationship between our Institutional Response Index and our Institutional Satisfaction Index. We found a significant, weak to moderate relationship (r=.200, p<.05), meaning a respondent tended to score higher on institutional satisfaction when they scored high on institutional response. This result supports prior scholarship. Shin and Steger (2016) found that students'sperceptions of their institution's support for them impacts their overall thriving and satisfaction. Our results confirm the importance of institutional response and institutional support in sophomores' overall satisfaction.

Question Two: How does institutional support relate to sophomore thriving?

Scholars such as Shin and Steger (2016) and Strayhorn (2008) examine students' perceptions of institutional support and their feelings of college being worthwhile for their future as being important for thriving. Shin and Steger (2016) found that students who feel their institution supports vocational searching report higher perception of meaning in their own life. This builds on the scholarship of Strayhorn (2008), who found that students who perceive themselves as doing meaningful work during their undergraduate years and who feel supported to pursue such work report higher levels of overall life satisfaction. This prior research helped us form our items and indices to encompass most, if not all, of these factors in the context of St. Olaf sophomores.

We used six survey items to ask respondents about their perceptions of support from various personnel on campus. Scores ranged from 1 to 5 on a scale from lowest to highest perceptions of support. As shown in Table 4, overall perceptions of support were relatively high. The lowest levels of support were on feeling supported by academic advisor (12.2% scoring 1 or 2), feeling professors support overall non-academic goals (12.8% scoring 1 or 2), and feeling valued at St. Olaf (16.0% scoring 1 or 2). More than 90% reported feeling respected by faculty, more than 80% reported feeling respected by peers, and more than 80% reported feeling supported by professors in academic goals.

Table 4. Percentage Responses to Institutional Support Items

	Highest 5	4	3	2	Lowest 1
I feel supported by my Academic Advisor	38.5%	30.3%	19.0%	10.0%	2.2%
I feel academically supported by my professors overall	41.5%	41.0%	12.7%	4.8%	0.0%
I feel my professors support my non-academic goals overall	21.9%	33.8%	31.6%	9.2%	3.5%
I feel respected by my peers	35.0%	48.7%	10.7%	4.7%	0.9%
I feel respected by campus staff	46.6%	45.7%	4.3%	3.0%	0.4%
I feel valued by St. Olaf College	26.7%	37.1%	19.8%	12.1%	3.9%

All items were measured on a 5-point scale (Extremely supported – Not at all supported; To a very large extent – Not at all; Strongly agree – Strongly disagree)

Next, we created a Perceived Institutional Support Index of items that measure feelings of institutional support. Each item was scored on a scale of 1 to 5. Index scores ranged from 13 to 30, with 50% or more students scoring 24 or higher. The average score was 23.93, with over 68% of respondents scoring between 20.25 and 27.61.
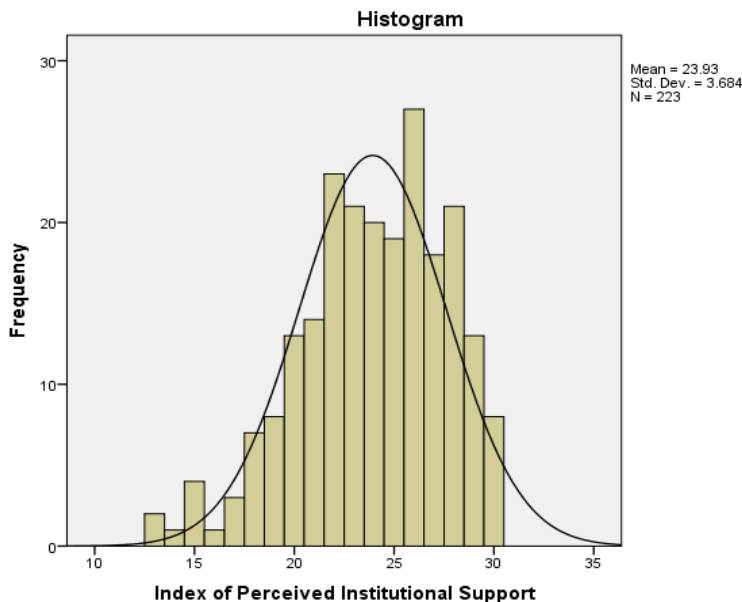

Mean = 23.93
Std. Dev. = 3.684
N = 223

Figure 5: Institutional Support Index

Upon constructing our Perceived Institutional Support Index, we sought to investigate the relationship between the desire to attend a different college and perceptions of support. We investigated this in light of Schreiner (2010), whose work highlights the importance of

institutional commitment and thriving. According to Schreiner (2010), social involvement and connectedness is one of the five main aspects of thriving, so we found it imperative that we analyze this factor in relation to institutional support. This was done by testing the relationship between our Perceived Institutional Support Index and the survey item in which respondents rated the degree to which they wish they had attended a different institution ("If I could do it over again, I would choose a different college or university to attend."). We found a significant, moderate, and negative correlation between these two variables (r=-.394, p<.05). In other words, we found that the higher students rated their desire to attend a different college, the lower their feelings of perceived institutional support, thus confirming prior research findings.

Additionally, we asked students if they felt hopeful about their future (post-graduation) in order to examine the correlation between this and perceived institutional support. We found a strong, positive correlation (r=.509) between these variables and the relationship was statistically significant (p<.05). Sophomores who feel hopeful about their future after graduation tended to report higher levels of perceived institutional support.

Next, we examined whether students felt as though St. Olaf is financially worth it and compared these results with our Institutional Support Index. We found a significant, moderate and positive relationship between the two (r=.290, p<.05), meaning that sophomores' sense of perceived institutional support tends to be higher when they believe that St. Olaf is worth the price.

We also wanted to test how certain demographics were related to feelings of institutional support. We chose our independent variables to be race, gender, and first-generation status. We combined the race variable into two categories, students of color and white students; gender into a binary of male and female; first-generation or non first-generation. As articulated in our methods section, this was done in order to conduct statistical tests. We found a significant association between gender and race and feelings of institutional support, but no association for first generation status. A student's race and gender is significantly related to how supported they feel by the institution (for both p<.05), with students of color and female students feeling less supported than white students and males, respectively. The mean for students of color was 23.23, whereas for white students it was 24.30. For females, the mean level of support was 23.85 whereas for males it was 24.71. Whether or not a respondent is a first generation college student is not related to how supported they feel by the institution (p=0.494).

We also analyzed feeling discouraged from exploring different academic subjects at St. Olaf with demographics. We tested race, gender, and sexual orientation as the independent variables, categorizing sexual orientation into heterosexual and LGBTQIA. We found no statistically significant relationships between these identities and feeling discouraged from exploring different academic subjects.

Next, we sought to investigate the relationship between institutional satisfaction and institutional support using our Institutional Satisfaction Index and our Institutional Support Index. We found a moderate to high, positive correlation (r=.441, p<.05) and a significant, linear relationship. This is in agreement with Shin and Steger (2016), whose research highlights the connection between feeling supported and feeling satisfied with one's institution. The more a student felt supported, the higher they tended to score on institutional satisfaction.

Finally, we wanted to examine the relationship between institutional support and thriving, using our Institutional Support Index and our Thriving Index. We found a strong, positive correlation between the two (r=.522, p<.05), and a significant linear relationship. This confirms the

assertions of Schreiner (2010), who describes how higher feelings of institutional support are related to higher the levels of thriving.

Question Three: How does preparation for future vocation and career relate to sophomore thriving?

Another important factor our team wanted to measure as an aspect of sophomore thriving was vocational preparation. This analysis was prompted by prior literature from Shin and Steger (2016) who highlighted the importance of career discernment and feeling prepared for a future vocation.

In investigating the role of career preparation and thriving, we first analyzed the relationship between institutional satisfaction and respondents' belief in whether St. Olaf prepares them for a future vocation and career. We found a moderate, significant relationship between the variables "St. Olaf prepares me to succeed in my future vocation and career" and our Institutional Satisfaction Index. We can confidently say that students' institutional satisfaction tends to be higher when they believe the college is preparing them for success in their future vocation ($r=.372$; $p=.000$).

Next, we tested the relationship between whether respondents felt their classes made them curious and institutional satisfaction. This was done through testing the relationship between a survey item where respondents rated the degree to which they felt their classes made them curious about possible career paths and our Institutional Satisfaction Index. We found a significant, linear relationship between the two variables ($r=.180$, $p<.05$). This means that when students feel their classes at St. Olaf make them curious about career paths, they are more likely to have high feelings of institutional satisfaction. This is in line with the work of Wang and Kennedy-Philips (2013), who articulate the importance of classroom engagement in institutional satisfaction.

We also analyzed the relationship between classes making students curious and thriving. This was done through testing the relationship between a survey item where respondents rated the degree to which they felt their classes made them curious about possible career paths and our Thriving Index. We found a moderate, significant relationship between the two ($r=.337$; $p=.000$); thus the more a student feels their classes make them curious about possible career paths, the higher they tended to score on our Thriving Index. Douglass and Duffy (2015) highlight the association between curiosity and aspects of thriving such as self-efficacy and engagement, and our findings support this connection.

We also sought to analyze the relationship between respondents' belief that St. Olaf prepares them to succeed in a future vocation and overall thriving. This was done through testing the relationship between respondents' rating on a survey item asking them the degree to which they feel St. Olaf is preparing them for a future career and our Thriving Index. We found a strong, significant relationship ($r=.437$; $p=.000$). This means that the more students feel St. Olaf is helping to prepare them for future careers, the higher they tended to score on our Thriving Index. Our findings support prior research on the subject, as Shin and Steger (2016) show the connection between feeling prepared to succeed and aspects of thriving.

Finally, we wished to investigate whether race and gender were related to staff encouragement on ideas about vocation and career. For neither of these tests did we find a significant relationship ($p>.05$), which means a student's race and gender do not tend to impact how encouraged they feel by St. Olaf staff on ideas about vocation and career.

Question Four: How does Piper Center use and efficacy in assisting students with career related searches and opportunities relate to sophomore thriving?

The Piper Center (the career center on St. Olaf campus) works to help students locate internship opportunities, prepare professional materials, and move towards their post-graduation future. Due to the role of the Piper Center in career discernment, we wished to investigate whether student thriving is affected by respondents' use and satisfaction with Piper Center services.

We asked sophomores about their satisfaction with four aspects of Piper Center services, as shown in Table 5. It is important to note that these responses are drawn from only 41 to 106 of our respondents, since the items only applied to respondents who reported having used these services in the first 10 weeks of sophomore year. Overall, satisfaction was high. For each item, a large majority of respondents were somewhat to very satisfied. This was most true for appointment with professional staff (89.8%), followed closely by drop-in visit (87.5%), and appointment with peer/student staff (80.5%). Respondents were more likely to be dissatisfied with website use (10.4% somewhat or very dissatisfied) than with other services, despite it having the highest number of users (n=116).

Table 5. Percentage Response for Satisfaction with four Piper Center Services

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied
Drop-in visit (n=64)	57.8%	29.7%	4.7%	3.1%	4.7%
Appointment with professional staff such as a Coach (n=69)	59.4%	30.4%	7.2%	1.4%	1.4%
Appointment with peer/student staff such as a Peer Advisor (n=41)	53.7%	26.8%	17.1%	0.0%	2.4%
Website use (such as for Handshake, career exploration, or resume pointers) (n=116)	27.6%	44.8%	17.2%	9.5%	0.9%

*Only 41-106 respondents answered these items. "n" = the number of respondents who answered the item.

We examined the relationship between Piper Center use and overall thriving among sophomores by testing the relationship between our Piper Center Usage Index, comprised of the items in Table 5, and our Thriving Index (see Table 1 and Figure 1). We found no statistically significant relationship between frequency of using the Piper Center and thriving (r=.161, p>.05).

In addition to investigating Piper Center usage, we also asked sophomores eight items about the extent to which they felt comfortable with the Piper Center, as shown in Table 6 below. It is important to note that these responses are drawn from only 48 to 138 of our respondents, since many responded "*Not applicable (I haven't sought this type of help).*" Positive responses were fairly high. For each item, a large majority responded *to a moderate extent, to a large extent, or to a very large extent*. This was most true for *The Piper Center helped me understand the value of connecting with alumni* (84.3%), followed closely by *The Piper Center Peer Educators helped me develop professional materials* (83.8%) and *The Piper Center Career Coaches helped me explore vocations or career paths* (82.1%). Respondents were more likely to respond negatively (combining *To a small extent* and *Not at all*) to *The Piper Center helped me explore majors* (37.0) and *The Piper Center helped me gain career-related experience* (31.3%).

Table 6. Percentage Response for Comfort with or Help from The Piper Center

	To a very large extent	To a large extent	To a moderate extent	To a small extent	Not at all
I feel comfortable visiting the Piper Center. (n=138)	25.4%	31.9%	22.5%	15.2%	5.1%
I feel comfortable approaching a Peer Advisor. (n=127)	22.0%	26.8%	26.8%	15.7%	8.7%
The Piper Center helped me understand the value of connecting with alumni. (n=64)	25.0%	24.7%	25.0%	9.4%	6.3%
The Piper Center helped me find out about internship options. (n=73)	27.4%	24.7%	27.4%	16.4%	4.1%
The Piper Center helped me explore majors. (n=54)	13.0%	20.4%	29.6%	18.5%	18.5%
The Piper Center Career Coaches helped me explore vocations or career paths. (n=67)	16.4%	28.4%	17.7%	10.4%	7.5%
The Piper Center Peer Educators helped me develop professional materials (such as a resume, cover letter, or essay). (n=62)	37.1%	29.0%	17.7%	8.1%	8.1%
The Piper Center helped me gain career-related experience (such as leadership, volunteering, student work, or professional skills). (n=48)	27.1%	20.8%	20.8%	16.7%	14.6%

*Only 48-138 respondents answered these items. "n" = the number of respondents who answered the item.

After gathering data on Piper Center satisfaction, we investigated the question: D*oes being satisfied with Piper Center resources increase institutional satisfaction?* In order to answer this question, we created an index summing respondents' scores on the items in table 6 above and tested the relationship between this Piper Center Satisfaction Index and our Institutional Satisfaction Index (see Table 2 and Figure 2). We found no statisicallly significant relationship between student satisfaction with the Piper Center and overall institutional satisfaction (r=-.-032, p>.05).

Another question we sought to answer in regarding the Piper Center was *Does being satisfied with Piper Center resources increase students' belief that St. Olaf is preparing them to succeed?* This was done through comparing our Piper Center Satisfaction Index to the respondents' ratings on a survey item asking about their belief in St. Olaf preparing them to succeed in their future vocation. We found no statistically significant relationship between Piper Center satisfaction with resources and students' belief in St. Olaf preparing them to succeed (r=.057, p>.05).

The final question we asked in regards to Piper Center satisfaction was *Does being more satisfied with Piper Center resources increase overall thriving?* This was done through comparing our Piper Center Satisfaction Index with our Thriving Index (see table 1, figure 1). According to this test, we cannot conclude a relationship exists between the two (r=.161, p>.05).

Prior research contradicts these results. Kuh (2008) describes a connection between college and university students using high impact practices (such as pursuing internships and career related opportunities associated with the Piper Center) and student engagement and retention. Schreiner (2010) describes how teaching students how to apply their strengths encourages thriving (practices the Piper Center seeks to achieve).

Unlike prior scholarship, we did not find a connection between Piper Center use as a high impact practice and thriving. We speculate that attending the Piper Center could decrease one's perception of their own strengths, creating stress. This stress could account for the lack of

relationship between Piper Center usage and satisfaction with thriving. Horton (2015) identifies factors such as judgmental self-evaluation as putting students 'at risk' for lower thriving. According to Horton (2015), continuous negative self-evaluation can foster low self-esteem and depression as students fail to meet their own standards. In addition to critical self-evaluation, we speculate that increased Piper Center usage could reflect students not feeling meaning in their lives. Shin and Steger (2016) report that students who feel they are constantly search for meaning report lower levels of meaning in their life (and lower levels of thriving). Overall, critical self-evaluation and lack of meaning for students who use and are satisfied with the Piper Center could help explain why we did not find a relationship between these variables and thriving.

Question Five: How does Quo Vadis attendance and impact (whether it was effective in assisting students in career and vocation discernment) relate to sophomore thriving?

Another resource we investigated at St. Olaf was Quo Vadis, a two day sophomore retreat designed to help sophomores explore academic majors and future careers. In order to evaluate the impact of Quo Vadis on overall thriving among sophomores, we first asked *Why do some sophomores not attend Quo Vadis?*

Of the 248 respondents who answered the question of whether they attended Quo Vadis, only 32 indicated they had. In order to investigate why certain respondents did not attend the retreat, we gave respondents a list of options to mark why they did not attend, and asked them to check all that applied. This list included options such as *"dates did not work," "too much homework"* and *"socially anxious."* Among the respondents who answered this question , 27.4% of reported they "*did not know about*" Quo Vadis, 31.8% of respondents reported "*the dates did not work*," 39.9% of respondents reported they "*had too much homework*," 13.7% reported they were "*socially anxious*" and 8.5% reported they "*didn't believe the retreat would be useful.*"

We also gave the response option of 'other' along with an open-ended question for respondents to expand upon their reasons for not attending Quo Vadis, and 31 respondents chose to comment. We grouped the open-ended responses into seven categories: no interest (8 responses), already knowing one's career path (8), lack of understanding of Quo Vadis' purpose (5 responses), conflicting priorities (5), didn't hear about it in time (2), disability preventing access (1), and sickness (1). Based on these results, the top reasons for not attending had to do with a lack of interest and feeling Quo Vadis would not be useful, as summarized by respondent comments:
- "It didn't look like it would offer me anything new"
- "I didn't think I would have been able to 'figure out my future' in 48 hours."

The next top reason for not attending had to do with lack of understanding or awareness of the event:
- "I didn't receive much information about it and was given short notice, and I didn't hear many people talking about it"

We next investigated the impact of Quo Vadis in helping sophomores with career discernment. We used four survey items to ask respondents who had attended Quo Vadis about the impact it had on them. It is important to note that only 33-36 respondents answered these items because only a small minority of sophomores participates in Quo Vadis. As shown in Table 7, a large majority of these respondents reported positive impacts. More than 60% responded to a "moderate extent", "to a large extent", or "to a very large extent" regarding Quo Vadis helping them gain perspective about choosing a major. More than 70% responded similarly about

gaining insight into their vocation/career interests, almost 80% responded similarly about reflecting on the types of careers that fit their values, and more than 90% responded similarly about Quo Vadis encouraging them to take initiative in exploring career options.

Table 7. Percentage Response for Quo Vadis Impact Items

	To a very large extent	To a large extent	To a moderate extent	To a small extent	Not at all
It helped me gain perspective about choosing a major.	13.9%	22.2%	27.8%	22.2%	13.9%
It helped me gain insight into my vocation/career interests.	21.2%	21.2%	30.3%	18.2%	9.1%
It helped me reflect on the types of careers that fit my values.	21.2%	33.3%	24.2%	9.1%	12.1%
It encouraged me to take initiative in exploring career options.	45.5%	24.2%	21.2%	3.0%	6.1%

*Only 33-36 respondents answered these items

Upon examining Quo Vadis' efficacy in assisting respondents with career discernment, the next question we asked was D*o students who feel Quo Vadis assisted in career exploration tend to report higher levels of institutional satisfaction? We answered t*his through testing the relationship between our Quo Vadis Impact Index (4 survey items, scoring responses on items in Table 7 above, scores ranging from 4-20) and our Institutional Satisfaction Index (see Table 2 and Figure 2). We found no statistically significant relationship between feeling that Quo Vadis assisted in career exploration and overall institutional satisfaction (p=.251).

Finally, we inquired D*oes believing Quo Vadis was helpful in assisting with career exploration increase overall thriving?* In order to answer whether Quo Vadis was associated with higher scores on thriving, we compared our Quo Vadis Impact Index with our Thriving Index. We found a strong relationship between feeling Quo Vadis assisted with career and vocation exploration and reporting higher levels of thriving (r=.448, p=.007).

These results are aligned with prior scholarship. Douglass and Duffy (2015) note the importance of having institutional support for vocational discernment, reporting that college students who are more certain about their career and vocation tend to report higher levels of institutional satisfaction. We speculate that the reason Quo Vadis participation was not associated with higher levels of institutional satisfaction is that the retreat assists students who are not yet certain of their future career paths, and thus (as found by Douglass and Duffy, 2015) are unlikely to report high levels of institutional satisfaction

The relationship between reporting a positive impact from Quo Vadis and thriving aligns with prior research. Quo Vadis attendees who felt the retreat was helpful in career discernment tended to report higher scores on thriving. As highlighted in our discussion of Piper Center usage and satisfaction, research by Shin and Steger (2016) found that colleges' support for and encouragement of meaning and vocational exploration has a positive impact on student thriving. This aligns with the purpose and goals of the Quo Vadis retreat, supporting the connection we found between attending the retreat and feeling it was helpful with thriving.

CONCLUSION

In the following sections, we summarize our results regarding the relationships between institutional satisfaction, career-related discernment, and thriving. In order to answer our five main questions, we constructed and analyzed various indexes and variables along with their relationships to each other. The most important results are summarized below.

QUESTION 1: How does institutional satisfaction relate to sophomore thriving?
Previous studies have implied a strong relationship between rating high on satisfaction with an institution and scoring high on thriving. Our data confirm this, showing that thriving scores tend to increase with higher scores on institutional satisfaction. We also found a strong relationship between believing St. Olaf is financially worth the investment and thriving. Additional factors impacting institutional satisfaction included perceived institutional responses and perceived institutional support. We also found that students of color tended to report lower levels of pride in the institution. In investigating what impacted being proud to attend St. Olaf, we found that lower scores on perceived institutional response were associated with lower levels of pride. We found no significant relationship between demographics and institutional satisfaction.

QUESTION 2: How does institutional support relate to sophomore thriving?
Our findings support prior research associating institutional support with aspects of thriving. We found that the higher the desire to attend a different college, the lower the sense of perceived institutional support. We found that race and gender have a significant impact on how supported respondents felt by the institution, with students of color and female students feeling less supported. Furthermore, sophomores who reported feeling more hopeful about their future after graduation or who believe St. Olaf is financially worth it tended to score higher on our index of perceived institutional support. Finally, our data show that rating higher on our index of institutional support is associated with higher scores on thriving.

QUESTION 3: How does preparation for future vocation and career relate to sophomore thriving?
Our first finding was that respondents who scored higher on a survey item about whether they feel the institution is preparing them for success in their future vocation and career tended to have higher levels of institutional satisfaction. We also found that students who reported feeling that their classes at St. Olaf made them curious about career paths tended to report higher scores for both institutional satisfaction and overall thriving indexes. Finally, we found that respondents who felt more strongly that St. Olaf prepares them to succeed in a future vocation tended to report higher levels of thriving.

QUESTION 4: How does Piper Center use and efficacy in assisting students with career related searches and opportunities relate to sophomore thriving?
Positive responses regarding the Piper Center's assistance with professional development were relatively high,with website usage the most frequently used and the lowest rated. Neither Piper Center usage nor satisfaction with resources had a statistically significant relationship to thriving. These findings contradict prior scholarship which shows a connection between utilizing high impact practices and thriving.

QUESTION 5: How do Quo Vadis attendance and impact (whether it was effective in assisting students in career and vocation discernment) relate to sophomore thriving?
The main factors preventing students from attending the Quo Vadis retreat were *'having too much homework,' 'conflict with dates,'* and *'not knowing about it.'* A large majority of respondents who attended Quo Vadis reported positive impacts from the retreat. There was a

strong relationship between attending Quo Vadis, feeling it helped with career exploration, and scoring higher on thriving. This supports previous studies which report that students who feel supported in their search for different careers and vocations by their institution report higher levels on dimensions of thriving.

STRENGTHS AND LIMITATIONS

Our study's strengths include the fact that our results can be generalized to sophomores at St. Olaf College. Additionally, we were able to ask about and analyze a wide array of variables related to our topics. Despite these strengths, our study has limitations. As the population studied was sophomores at St. Olaf College, our findings cannot be generalized beyond St. Olaf sophomores. Our use of self-report data means that we are limited to the data students are aware of and willing to disclose. Additionally, data analyzed was from a cross-sectional survey, thus identifying associations but not causation. Finally, we were unable to include all of the questions we wanted in the survey (e.g., additional questions on institutional satisfaction and vocational discernment) because of survey length limitations.

RECOMMENDATIONS

1. Because institutional satisfaction is associated with higher scores on thriving, we recommend that St. Olaf College take action to promote institutional satisfaction among students. For example, St. Olaf could attempt to project stronger messages of the long-term positive benefits of a St. Olaf education and it could identify and highlight aspects of the college that are unique to St. Olaf.

2. Because of the association between feeling prepared for a future vocation and thriving, we suggest that St. Olaf encourage faculty to incorporate real-world applications in curriculum and coursework. We also suggest that the college do more to train students in skills they will use after college. For example, the college could offer classes that are applicable to future careers through bringing in guest speakers in major-related careers, hainge professors better inform sophomores about major-related career opportunities, etc.

3. Because of the association between viewing St. Olaf's institutional responses negatively and scoring lower on institutional commitment, St. Olaf should increase its focus on institutional responses and communicate this to students. Based on our survey, some areas to focus on addressing are identity-based discrimination, sexual assault and violence, and mental health.

4. Because of the negative association between feelings of support from St. Olaf and being a female or students of color, we suggest St. Olaf College increase support for females and students of color on campus. For example, the college could sponsor more female-centric or student-of-color-centered networking events or events for faculty and students sharing similar identities to interact.

5. Due to the association between thriving and feeling that Quo Vadis was beneficial, St. Olaf should focus more resources on this retreat. St. Olaf could make attending Quo Vadis more accessible to sophomores by moving the date to a more convenient time, offering it more than once per year, communicating with professors to reduce the homework load for sophomores around that time, and more strongly advertising and explaining the retreat and its benefits.

References

Becker, Craig, Nelson Cooper, Kemal Atkin, and Susanne Martin. 2009. "What Helps Students Thrive? An Investigation of Student Engagement and Performance." *Recreational Sports Journal* 33:139-149.10.1123/rsj.33.2.139.

Dhillon, Manpreet, Jerome Rabow, Vanessa Han, Saskia Maltz, and Jennifer Moore. 2015. "Achieving Consciousness and Transformation in the Classroom: Race, Gender, Sexual Orientations and Social Justice." *Sociology Mind* 5:74-83.

Douglass, Richard P., and Ryan Duffy. 2015. Calling and career adaptability among undergraduate students. *Journal of Vocational Behavior* 86: 58–65. https://doi.org/10.1016/j.jvb.2014.11.003

Gregg-Jolly, Leslie, Jim Swartz, Ellen Iverson, Joyce Stern, Narren Brown, and David Lopatto 2017. "Situating Second-Year Success: Understanding Second-Year STEM Experiences at a Liberal Arts College." *Life Science Education* 15:3.

Horton, Joanne. 2015. "Identifying at Risk Factors that Impact Student Success" *International Journal of Process Education* 7:1.

Hunter, Isaac, Bryan J. Dik, and James H. Banning. 2010. "College students' perceptions of calling in work and life: A qualitative analysis." *Journal of Vocational Behavior* 76(2): 178–186.

Kuh, George. 2008. "High Impact Practices: What They Are, Who Has Access to Them, and Why They Matter." *Association of American Colleges and Universities.*

Neuman, W. Lawrence. 2012. Basics of Social Research: Qualitative and Quantitative Approaches, 3rd ed. Boston, MA: Pearson.

Schreiner, Laurie. 2010. "The "Thriving Quotient": A New Vision for Student Success." *About Campus* 15(2): 2-10.

Schreiner, Laurie. 2014. "Different Pathways to Thriving Among Students of Color: An Untapped Opportunity for Success." *About Campus* 19(5):10–19.https://doi.org/10.1002/abc.21169

Seppelt, Troy L. 2016. "Thriving on Campus: The Role of on-Campus Involvement in Sophomore Students." *Azusa Pacific University*

Shin, Joo Yeon, and Michael F. Steger. 2016. "Supportive College Environment for Meaning Searching and Meaning in Life Among American College Students." J*ournal of College Student Development* 57(1): 18-31. *Johns Hopkins University Press.* Project MUSE.

Strayhorn, Terrell. 2008. "How College Students' Engagement Affects Personal and Social Learning Outcomes" *Journal of College and Character* 10:2, DOI: 10.2202/1940-1639.1071.

Sweat, Jeffery, Glenda Jones, Suejung Han, and Susan M. Wolfram. 2013. "How Does High Impact Practice Predict Student Engagement? A Comparison of White and Minority Students." International Journal for the Scholarship of Teaching and Learning 7(2): 17

Turner, Patrick, and Elizabeth Thompson. 2014. "College retention initiatives meeting the needs of millennial freshman students." *College Student Journal* 48(1): 94–104.

Wang, Xueli, and Lance Kennedy-Phillips. 2013. "Focusing on the Sophomores: Characteristics Associate With the Academic and Social Involvement of Second-Year College Students." *Research in Brief* 54(5): 541-548.

Appendix

Question One: How does institutional satisfaction relate to sophomore thriving?

Table 1: Index of Institutional Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	3	1.2	1.3	1.3
	7	11	4.4	4.7	6.0
	8	29	11.7	12.4	18.4
	9	53	21.4	22.6	41.0
	10	69	27.8	29.5	70.5
	11	34	13.7	14.5	85.0
	12	19	7.7	8.1	93.2
	13	6	2.4	2.6	95.7
	14	5	2.0	2.1	97.9
	15	2	0.8	0.9	98.7
	16	2	0.8	0.9	99.6
	17	1	0.4	0.4	100.0
	Total	234	94.4	100.0	
Missing	99	14	5.6		
Total		248	100.0		

Table 2: St. Olaf Education is Worth the Price and Institutional Satisfaction
Correlations[b]

			St. Olaf education is worth the price	Index of Institutional Satisfaction
Spearman's rho	St. Olaf education is worth the price	Correlation Coefficient	1.000	.673[**]
		Sig. (1-tailed)	.	.000
	Index of Institutional Satisfaction	Correlation Coefficient	.673[**]	1.000
		Sig. (1-tailed)	.000	.

Table s3-4: Institutional Satisfaction and Thriving Index

Descriptive Statistics			
	Mean	Std. Deviation	N
Institu. Satisfaction Index	9.88	1.708	196
Thriving Index (15 items: 5 dimensions, 3 items each)	53.23	6.090	196

Correlations[b]			
		Institu. Satisfaction Index	Thriving Index (15 items: 5 dimensions, 3 items each)
Institu. Satisfaction Index	Pearson Correlation	1	.293[**]
	Sig. (1-tailed)		.000
Thriving Index (15 items: 5 dimensions, 3 items each)	Pearson Correlation	.293[**]	1
	Sig. (1-tailed)	.000	

Table 5: St. Olaf Education is Worth the Price and Thriving Index

			St. Olaf education is worth the price	Thriving Index (15 items: 5 dimensions, 3 items each)
		Correlations[b]		
Spearman's rho	St. Olaf education is worth the price	Correlation Coefficient	1.000	.292**
		Sig. (1-tailed)	.	.000
	Thriving Index (15 items: 5 dimensions, 3 items each)	Correlation Coefficient	.292**	1.000
		Sig. (1-tailed)	.000	.

Table 6: Race/Ethnicity

Race/Ethnicity (grouped)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Students of Color, including bi-/multi-racial	57	23.0	28.4	28.4
	White Students	144	58.1	71.6	100.0
	Total	201	81.0	100.0	
Missing	99	47	19.0		
Total		248	100.0		

Table 7: Race/Ethnicity and Proud to be an Ole

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.009[a]	5	.075
Likelihood Ratio	10.358	5	.066
Linear-by-Linear Association	8.748	1	.003
N of Valid Cases	201		

Table 8: Proud to be an Ole and Thriving Index

Correlations[b]

			Proud to be an Ole	Thriving Index (15 items: 5 dimensions, 3 items each)
Spearman's rho	Proud to be an Ole	Correlation Coefficient	1.000	.410**
		Sig. (1-tailed)	.	.000
	Thriving Index (15 items: 5 dimensions, 3 items each)	Correlation Coefficient	.410**	1.000
		Sig. (1-tailed)	.000	.

Table 9: Index of Institutional Response and Proud to be an Ole

Correlations[b]			Index of Institutional Response	Proud to be an Ole
Spearman's rho	Index of Institutional Response	Correlation Coefficient	1.000	.372[**]
		Sig. (1-tailed)	.	.000
	Proud to be an Ole	Correlation Coefficient	.372[**]	1.000
		Sig. (1-tailed)	.000	.

Table 10: Index of Institutional Response and Institutional Satisfaction

Descriptive Statistics	Mean	Std. Deviation	N
Index of Institutional Response	9.79	2.784	234
Index of Institutional Satisfaction	14.03	2.272	234

Correlations[b]		Index of Institutional Response	Index of Institutional Satisfaction
Index of Institutional Response	Pearson Correlation	1	.200[**]
	Sig. (1-tailed)		.001
Index of Institutional Satisfaction	Pearson Correlation	.200[**]	1
	Sig. (1-tailed)	.001	

Question Two: How does institutional support relate to sophomore thriving?

Table 11: Desire to Attend a Different College and Institutional Support

Correlations[b]			Index of Perceived Institutional Support	Desire to attend a different college
Spearman's rho	Index of Perceived Institutional Support	Correlation Coefficient	1.000	-.394[**]
		Sig. (1-tailed)	.	.000
	Desire to attend a different college	Correlation Coefficient	-.394[**]	1.000
		Sig. (1-tailed)	.000	.

Table 12: I Feel Hopeful About My Future After Graduation and Institutional Support

Correlations[b]			Index of Perceived Institutional Support	I feel hopeful about my future after graduation.
Spearman's rho	Index of Perceived Institutional Support	Correlation Coefficient	1.000	.509[**]
		Sig. (1-tailed)	.	.000
	I feel hopeful about my future after graduation.	Correlation Coefficient	.509[**]	1.000
		Sig. (1-tailed)	.000	.

Table 13: St. Olaf Education is Worth the Price and Institutional Support

			Index of Perceived Institutional Support	St. Olaf education is worth the price
		Correlations[a]		
Spearman's rho	Index of Perceived Institutional Support	Correlation Coefficient	1.000	-.054
		Sig. (1-tailed)	.	.211
	St. Olaf education is worth the price	Correlation Coefficient	-.054	1.000
		Sig. (1-tailed)	.211	.

Table 14: Gender - Binary

Gender - Binary Only

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	145	58.5	73.2	73.2
	Male	53	21.4	26.8	100.0
	Total	198	79.8	100.0	
Missing	99	50	20.2		
Total		248	100.0		

Table 15: Gender - Binary and Institutional Support

Gender – Binary Only	Mean	N	Std. Deviation
Female	23.85	139	3.314
Male	24.71	49	3.926

Test Statistics[a]

	Index of Perceived Institutional Support
Mann-Whitney U	2808.000
Wilcoxon W	12538.000
Z	-1.832
Asymp. Sig. (2-tailed)	.067

Table 16: Race and Institutional Support

Race/Ethnicity (grouped)	Mean	N	Std. Deviation
Students of Color, including bi-/multi-racial	23.23	52	3.964
White Students	24.30	139	3.241

Test Statistics[a]

	Index of Perceived Institutional Support
Mann-Whitney U	2961.500
Wilcoxon W	4339.500
Z	-1.926
Asymp. Sig. (2-tailed)	.054

Table 17: Institutional Support and Institutional Satisfaction

Correlations[b]			Index of Perceived Institutional Support	Index of Institutional Satisfaction
Spearman's rho	Index of Perceived Institutional Support	Correlation Coefficient	1.000	.441**
		Sig. (1-tailed)	.	.000
	Index of Institutional Satisfaction	Correlation Coefficient	.441**	1.000
		Sig. (1-tailed)	.000	.

Table 18: Institutional Support and Thriving Index

Descriptive Statistics	Mean	Std. Deviation	N
Thriving Index (15 items: 5 dimensions, 3 items each)	53.38	6.021	191
Index of Perceived Institutional Support	23.95	3.648	191

Correlations[b]		Thriving Index (15 items: 5 dimensions, 3 items each)	Index of Perceived Institutional Support
Thriving Index (15 items: 5 dimensions, 3 items each)	Pearson Correlation	1	.526**
	Sig. (1-tailed)		.000
Index of Perceived Institutional Support	Pearson Correlation	.526**	1
	Sig. (1-tailed)	.000	

Question Three: How does preparation for future vocation and career relate to sophomore thriving?

Table 19: St. Olaf Prepares Me to Succeed in Future Vocation & Career and Institutional Satisfaction

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	75.453[a]	39	.000
Likelihood Ratio	73.361	39	.001
Linear-by-Linear Association	32.053	1	.000
N of Valid Cases	233		

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.569	.000
	Cramer's V	.329	.000
N of Valid Cases		233	

Table 20: My classes at St. Olaf have made me curious (or more curious) about possible career paths and Institutional Satisfaction

Correlations[b]				
			Curious Career Paths	Index of Institutional Satisfaction
Spearman's rho	Curious Career Paths	Correlation Coefficient	1.000	.180[**]
		Sig. (1-tailed)	.	.003
	Index of Institutional Satisfaction	Correlation Coefficient	.180[**]	1.000
		Sig. (1-tailed)	.003	.

Table 21: My classes at St. Olaf Have Made me Curious About Possible Career Paths and Thriving Index

Correlations[b]				
			Thriving Index (15 items: 5 dimensions, 3 items each)	Curious Career Paths
Spearman's rho	Thriving Index (15 items: 5 dimensions, 3 items each)	Correlation Coefficient	1.000	.337[**]
		Sig. (1-tailed)	.	.000
	Curious Career Paths	Correlation Coefficient	.337[**]	1.000
		Sig. (1-tailed)	.000	.

Table 22: St. Olaf Prepares Me to Succeed in Future Vocation/Career and Thriving Index

			Thriving Index (15 items)	St. Olaf prepares me to succeed in future vocation & career
		Correlations[b]		
Spearman's rho	Thriving Index (15 items: 5 dims, 3 items each)	Correlation Coefficient	1.000	.437**
		Sig. (1-tailed)	.	.000
	St. Olaf prepares me to succeed in future vocation & career	Correlation Coefficient	.437**	1.000
		Sig. (1-tailed)	.000	.

Question Five: How does Quo Vadis attendance and impact (whether it was effective in assisting students in career and vocation discernment) relate to sophomore thriving?

Tables 23-27: Reasons for Not Attending Quo Vadis Retreat

		Frequency	Percent	Valid Percent	Cumulative Percent
		QV didn't know			
Valid	No	180	72.6	72.6	72.6
	Yes	68	27.4	27.4	100.0
	Total	248	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
		QV dates did not work			
Valid	No	170	68.5	68.5	68.5
	Yes	78	31.5	31.5	100.0
	Total	248	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
		QV too much homework			
Valid	No	149	60.1	60.1	60.1
	Yes	99	39.9	39.9	100.0
	Total	248	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
		QV socially anxious			
Valid	No	214	86.3	86.3	86.3
	Yes	34	13.7	13.7	100.0
	Total	248	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
		QV not useful			
Valid	No	227	91.5	91.5	91.5
	Yes	21	8.5	8.5	100.0
	Total	248	100.0	100.0	

Table 28: Attendance at Quo Vadis Retreat and Thriving Index

			QV benefit index	Thriving Index (15 items: 5 dimensions, 3 items each)
S. rho	QV benefit index	Correlation Coefficient	1.000	.479**
		Sig. (1-tailed)	.	.004
	Thriving Index (15 items: 5 dimensions, 3 items each)	Correlation Coefficient	.479**	1.000
		Sig. (1-tailed)	.004	.