Development of the Academic Enjoyment Questionnaire (AE-Q)

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PSY 3620: Survey Design: From Theory to Practice

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April 22nd, 2023

Abstract

Academic enjoyment is a construct that has been researched less than many other aspects of academics and learning. Multiple studies show that higher levels of; academic self-esteem, academic conscientiousness, interpersonal relationships through school, academic autonomy, and sleep health all improve academic enjoyment (Aldridge et al., 2013; Baños et al., 2020; Bronkema, 2017; Kang & Wu, 2022; Minkkinen & Oksanen, 2017; Pedler et al., 2021). However, all of these studies fail to evaluate academic enjoyment using all of these factors simultaneously. There is one study that uses sleep health as a subscale of academic enjoyment, but only uses children ages 9-13 as participants. There is no existing study that evaluates sleep health as a subscale of academic enjoyment using college students as participants. This pilot study was conducted using a 38-item questionnaire that was developed to assess these subscales with the goal of advancing the current understanding of academic enjoyment. A reliability analysis was conducted using results from this pilot study to evaluate the validity of items and subscales developed for this questionnaire. Cronbach α values of .803, .824, .503, .776, and .841 were derived for academic conscientiousness, interpersonal relationships through school, academic self-esteem, academic autonomy, and sleep health respectively. These results represent a fairly high reliability for how the subscales; academic conscientiousness, interpersonal relationships through school, sleep health and academic autonomy were applied in this questionnaire. Academic self-esteem presented a fairly low Cronbach α value which means the way this subscale was composed for this questionnaire requires revision or potentially deletion. If applied to a greater population, this questionnaire has the potential to provide greater insight into how college students can experience greater academic enjoyment and even advance our fundamental understanding of the topic.

Literature Review

The Importance of Academic Enjoyment

Academic enjoyment is a component of academics that is not as immensely studied as academic achievement and other aspects of academics. Undergraduate college students expend an extensive amount of mental and financial resources in order to complete an undergraduate collegiate education. It is extremely important for students to exhibit some level of academic enjoyment. Many studies that have evaluated academic enjoyment have found that students who enjoy their academics are significantly more likely to experience greater academic achievement (Pedler et al., 2021; Kang & Wu, 2022). Students who exhibit greater academic enjoyment are also more likely to experience higher levels of psychological well-being (Gavala & Flett, 2005).

Evaluation of Academic Enjoyment Through Academic Self-Esteem, Academic Conscientiousness, and Interpersonal Relationships Through School

A recent study done on academic enjoyment showed that a student's ability to exhibit positive academic self-concept, behavioral engagement, and organizational strategy increases the likelihood of experiencing academic enjoyment (Kang & Wu, 2022). The participants for this study were high school students and only evaluated academic enjoyment across three subscales; behavioral engagement, academic self-concept, and organizational strategy. Although its approach to evaluating academic enjoyment was limited, it still emphasizes how imperative a student's academic self-concept and their ability to apply a sense of conscientiousness to academics can be for enjoying academics. The study defined organizational strategy as a student's ability to be goal-oriented, and defines behavioral engagement as a student's ability to consistently apply effort over time towards academics (Kang & Wu, 2022).

A key reason why this study is limited is because it did not factor in the impact that forming relationships through school can have on enjoying academics. In a different study a "sense of belonging" in higher education has been accredited to resulting in greater academic enjoyment. In this case a "sense of belonging" consisted of how valued and included students felt by peers at their university. Undergraduate students with one "close campus friend" are more likely to have higher Grade Point Averages as well as higher six-year graduation rates than students with zero "close campus friends". (Bronkema, 2017). It was even shown that a greater "sense of belonging" a student has at a university can influence a greater academic self-concept, which can influence even higher levels of academic enjoyment (Pedler et al., 2021). Another study that looked into the effect academic self-esteem has on academic enjoyment found extremely similar results. The study showed that higher levels of positive academic self-efficacy beliefs, which is defined almost identically to academic self-concept or academic self-esteem, can also influence greater academic enjoyment (Aldridge et al., 2013).

Although all of the studies mentioned previously emphasize how crucial academic self-esteem, interpersonal relationships through school, and academic conscientiousness are on experiencing academic enjoyment, none of them evaluate academic enjoyment using all three of these subscales.

The Rise of Insomnia and The Importance of Evaluating Academic Enjoyment Through Sleep Health

An extremely under researched contributor to academic enjoyment is sleep health. There is only one study that has evaluated sleep health as a subscale of academic enjoyment (Minkkinen & Oksanen, 2017). The participants of this study consisted strictly of students who were 9-13 years old, and it was shown that a healthy sleep schedule can influence greater academic enjoyment. Further research into the impact that sleep health has on academic

enjoyment is necessary since there have been no published studies that asses this concept using college students as participants. Children ages 9-13 require 9-12 hours of sleep per night in order to maintain proper sleep health, while adults between the ages of 18 and 60 only require at least 7 hours of sleep per night (CDC). The study mentioned previously was also conducted in 2017, which was before the COVID-19 pandemic where adults experienced a 26% increase in insomnia symptoms and a 13% increase in insomnia diagnoses (Morin, et al. 2021).

Evaluating Academic Enjoyment Through Academic Autonomy

There is a plethora of studies that show a direct correlation between the interest and autonomy students experience around academics and their perceived academic enjoyment. This finding has been reciprocated accross of variety of different populations and domains. Studies conducted across different continents, age ranges, and academic subjects all found a positive relationship between academic autonomy and academic enjoyment (Baños et al,. 2020; Frioland, 2015). It is obvious based upon extensive research that academic autonomy must be assessed when evaluating academic enjoyment.

Purpose of Present Study

There are numerous studies that attempt to evaluate academic enjoyment across multiple subscales. After looking through all current research in the field of academic enjoyment it is clear that greater academic self-esteem, interpersonal relationships through school, academic conscientiousness, sleep health, and academic autonomy have all shown to increase the ability of students to experience greater perceived academic enjoyment. However, there are zero existing studies that evaluate academic enjoyment using all five of these subscales as well as using solely active college students as participants.

Methods

Participants

Respondents for the pilot study consisted solely of active undergraduate college students. There were a total of 42 respondents ranging across five age groups, all four university statuses, and sixteen different majors. 16.7% of participants were ages 18 and 19, 40.5% ages 20 and 21, 28.6% ages 22-23, 7.1% ages 24-25, and 7.1% were 27 years old or older. The participants also consisted of 50% seniors, 31% juniors, 16.7% sophomores, and 2.4% freshman. Lastly, the breakdown of the 16 majors of all 42 participants consisted of the following proportions; 4.8% acting, 2.4% philosophy, 2.4% music technology, 2.4% legal studies, 2.4% communications, 2.4% advertising, 4.8% business, 7.1% international business studies, 31% psychology, 2.4% international affairs, 2.4% finance, 19% economics, 2.4% physical engineering science, 2.4% neurobiology, 2.4% mechanical engineering, and 9.5% were double majors.

Materials

The questionnaire was administered via Google Forms and consisted of three clearly marked sections. Section one contained a cover letter explaining the purpose of the questionnaire, anonymity of responses, and estimated duration of completion as well as a verification item granting the researcher ability to utilize responses for previously defined research purposes. Section two contained three demographic questions; major, university status, and age. Section three contained 35 items that as a whole evaluated five subscales; academic conscientiousness, academic self-esteem, academic autonomy, interpersonal relationships through school and sleep health. All survey items utilized a 5–point Likert Scale ranging from “strongly disagree”, “disagree”, “neutral”, “agree”, to “strongly agree”. The subscale of sleep

health also utilized a 5-point Likert Scale, except the response scale for sleep health ranged in terms of frequency from; “never”, “rarely”, “sometimes”, “often” and “always”.

Items 17, 18, 20, 21, 26, 27, 29 evaluated academic conscientiousness. For this subscale participants were asked questions such as, “I feel satisfaction from completing coursework in my major” or “I rarely experience academic burnout”. Items 5, 10, 12, 13, 19, 23, 34, and 38 evaluated interpersonal relationships through school. For this subscale participants were asked questions such as, “I am usually happy to meet new people at school” or “I have hung out with friends from school outside of campus for an extended period of time.” Items 7, 30, 31, 32, and 36 evaluated academic self-esteem. For this subscale participants were asked questions such as, “I am confident I will graduate” or “I am confident that I can keep up with academic workload”. Items 4, 6, 8, 11, 16, 22, 25, and 28 evaluated sleep health. For this subscale participants were asked questions such as, “I sleep at least 7 hours per night” or “I wake up at a similar time every morning”. Items 9, 14, 24, and 33 evaluated academic autonomy. For this subscale participants were asked questions such as, “I am satisfied with the major I have chosen” or “my family gave me full freedom over my choice of major” (See Appendix K).

Procedures

After an extensive review of the literature surrounding academic enjoyment, a conceptual framework was developed. Indicators for each subscale needed to align with existing research. For example, existing research on sleep health has shown that the most important factors of sleep health are sunlight exposure, consistency sleep schedule, and consistently receiving at least 7 hours of sleep per night (U.S National Heart, Lung, and Blood Institute, 2011). For this questionnaire sleep health was then divided into two indicators; sunlight exposure and consistency of healthy sleep schedule (See Appendix A).

Before any items for this questionnaire were drafted, I was required to read the entirety of the textbook “Designing Quality Survey Questions” written by Sheila B. Robinson and Kimberly Firth Leonard as well as write approximately 1,000 words on each chapter describing the information in the textbook that was imperative towards designing quality survey items. The textbook explained a variety of crucial aspects of quality survey items, and quality surveys as a whole such as; double barreled questions, the necessity of appropriate response scales, different types of response scales, the importance of cognitive load, the necessity and relevance of adapting survey measures, and many more. After ensuring a foundational understanding of quality surveys and more specifically quality survey items, the items for this questionnaire began the drafting stage.

There were a total of three drafts created before receiving approval from my survey design course instructor to begin conducting cognitive interviews (See Appendices G, H & I). Throughout the duration of these three drafts the course instructor provided lots of revisions regarding the cognitive load of items, the relevance items had to their relative subscale or indicator, conciseness of item wording, and cognitive load and conciseness of the cover letter. Three cognitive interviews were then conducted with participants that aligned with the target group of this questionnaire. Cognitive interview participants were asked to “think out loud” while completing the survey. The cognitive interviews provided a large amount of helpful feedback that lead to the finalization of the questionnaire. The cognitive interviews provided insight into the cognitive load that participants would experience as well as how participants would comprehend items and form responses. There was an item that was deleted for the final draft because all participants of the cognitive interviews interpreted that specific item differently. The item provided high cognitive load and ambiguous language, and the cognitive interviews

made it obvious that it was not a quality survey item. Also items that asked about enjoyment of coursework and comfortability in classroom settings were altered to strictly ask about major coursework. Participants of the cognitive interviews all expressed comfortability in participating in courses related to their majors and even enjoyment of coursework, yet did not have as positive sentiments towards courses outside of their majors.

Expert Interview

The second to last step of drafting the questionnaire before receiving approval to conduct the pilot study was conducting an expert interview. The expert interviewed for this questionnaire is the Director of the Learning Center at a well-renowned American university. The most significant feedback received from this expert interview was that the response scale for items evaluating sleep health were not appropriate. At the time of the expert interview all items evaluating sleep health utilized a 5-point Likert Scale ranging from “strongly disagree”, “disagree”, “neutral” “agree”, to “strongly agree”. The expert recommended utilizing a response scale that represented frequency, since the sleep health subscale is trying to gauge consistency of healthy sleep habits. Eventually this feedback was used to create a 5-point Likert Scale ranging from “never”, “rarely”, “sometimes”, “often” to “always”. After making revisions based upon this feedback and one final consultation with the course instructor, the questionnaire was finally approved for a pilot study.

Results

Cronbach α values for academic conscientiousness, interpersonal relationships through school, academic self-esteem, academic autonomy, and sleep health were: .803, .824, .503, .776, and .841 respectively. Inter-item correlations for each subscale ranged from .073 to .853, -.178 to .732, .312 to .733, and -.077 to .744 in the same respective order. Standard deviations for all

individual items in the subscales ranged from .864 to 1.153, .740 to 1.058, .705 to .951, .917 to 1.152, and .833 to 1.064 across the same respective order of subscales as well. Frequency data showed that only four out of the 5-point Likert Scale response options were used for items 13, 20, 27, 28, and 33. All other items had participants answer across all five response options (See Appendices B, C & F).

Discussion

The goal of this pilot study was to assess the reliability of the subscales and the quality of items that were developed for this questionnaire. The Cronbach α values derived from this pilot study represent a presence of reliable subscales developed to assess academic enjoyment. Out of all five subscales constructed to assess academic enjoyment for this questionnaire, only academic self-esteem shows a weak level of reliability. The standard deviation values for most items show a quality use of the entire the response scale, with 12 out of the 34 items assessing academic enjoyment have standard deviations over 1 and 22 out of 34 items having standard deviations greater than .9 (See Appendices B, C, D, E, F).

The lack of utilization of all response scale options for items 13, 20, 27, 28 & 33 show that these items either lead the respondent to a certain type of answer, or simply show a clear pattern amongst undergraduate college student behavior and habits. For example, item 33 stated, “my family gave me full freedom over my choice of major”. Not one participant in the pilot study responded “strongly disagree” to this statement. This could either mean that no one strongly disagrees that with the idea that their family gave them freedom over their choice of major, or maybe the way the item was worded lead participants to not put their parents’ opinions and decisions in such a harsh light.

Limitations and Future Considerations

The results of the pilot study were analyzed through reliability analysis as well as descriptive statistics. With only 42 participants in the pilot study, there was not a sufficient sample size to be able to conduct a factor analysis. Furthering this study to have enough participants to conduct a factor analysis would provide a lot more in-depth feedback that would more accurately assess and improve the overall quality of this questionnaire.

With a Cronbach α level of .503, the academic self-esteem variable also must be revised or deleted if this study where to be brought to a larger scale. Academic self-esteem has proven to be a contributor towards academic enjoyment across a variety of domains, so it is clear that there is most likely a fault in how the items were constructed for this variable. Perhaps the indicators for this subscale should be reconsidered and potentially revised as well.

Conclusion

There are enough gaps in the existing research of academic enjoyment that warrant the use or further development of this questionnaire. Four out of the five subscales constructed to assess academic enjoyment in this questionnaire show a sufficient level of reliability. A large majority of the items showed respondents using all five response options and have standard deviation values representing that as well. With greater resources and attention applied to this questionnaire, educators and educational researchers could receive lots of valuable feedback by applying or developing this questionnaire on a larger scale.

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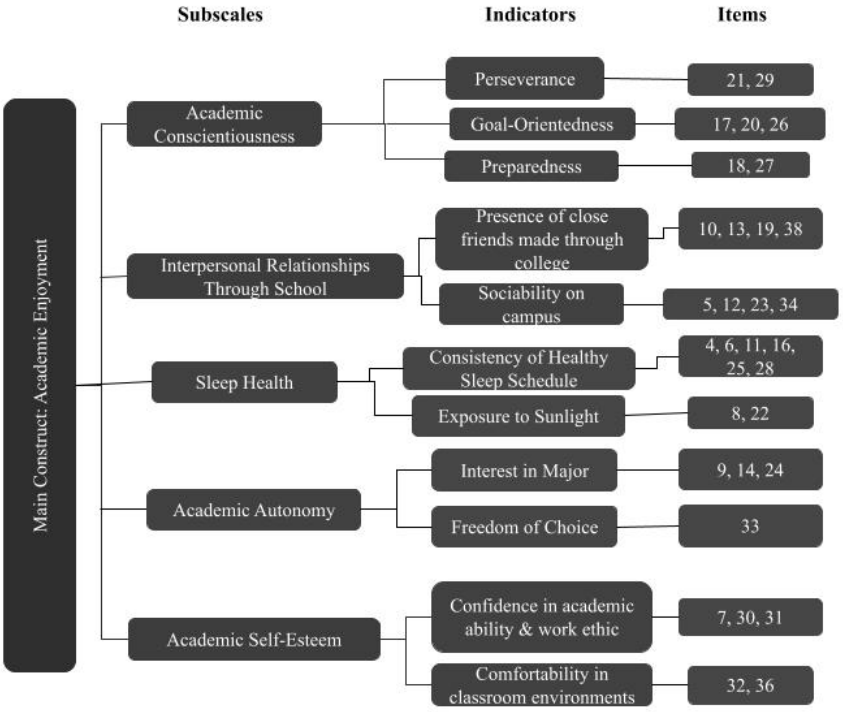
Appendix A: Conceptual Framework



Appendix B: Descriptive Statistics - Interpersonal Relationships Through School

Statistics

		i5	i10	i12	i13	i23	i34	i38
N	Valid	42	42	42	42	42	42	42
	Missing	0	0	0	0	0	0	0
Mean		3.62	4.00	3.62	4.17	3.57	3.52	4.19
Median		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Mode		4	4	4	5	4	4	4
Std. Deviation		.825	.855	1.058	.935	.914	1.042	.740
Variance		.681	.732	1.120	.874	.836	1.085	.548
Skewness		-.538	-1.227	-.588	-.912	-.824	-.542	-.702
Std. Error of Skewness		.365	.365	.365	.365	.365	.365	.365
Kurtosis		1.330	2.780	.139	-.039	1.476	.073	.482
Std. Error of Kurtosis		.717	.717	.717	.717	.717	.717	.717
Range		4	4	4	3	4	4	3
Minimum		1	1	1	2	1	1	2
Maximum		5	5	5	5	5	5	5

i5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	1	2.4	2.4	4.8
	3	16	38.1	38.1	42.9
	4	19	45.2	45.2	88.1
	5	5	11.9	11.9	100.0
	Total	42	100.0	100.0	

i10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	1	2.4	2.4	4.8
	3	6	14.3	14.3	19.0
	4	23	54.8	54.8	73.8
	5	11	26.2	26.2	100.0
	Total	42	100.0	100.0	

i12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	3	7.1	7.1	11.9
	3	13	31.0	31.0	42.9
	4	15	35.7	35.7	78.6
	5	9	21.4	21.4	100.0
	Total	42	100.0	100.0	

i13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	7.1	7.1	7.1
	3	6	14.3	14.3	21.4
	4	14	33.3	33.3	54.8
	5	19	45.2	45.2	100.0
	Total	42	100.0	100.0	

i23

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	1	2.4	2.4	7.1
	3	15	35.7	35.7	42.9
	4	19	45.2	45.2	88.1
	5	5	11.9	11.9	100.0
	Total	42	100.0	100.0	

i34

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	4	9.5	9.5	14.3
	3	13	31.0	31.0	45.2
	4	16	38.1	38.1	83.3
	5	7	16.7	16.7	100.0
	Total	42	100.0	100.0	

Appendix C: Descriptive Statistics - Academic Conscientiousness

Statistics

		i17	i18	i20	i21	i26	i27	i29
N	Valid	42	42	42	42	42	42	42
	Missing	0	0	0	0	0	0	0
Mean		4.12	3.83	4.29	3.74	3.67	3.83	2.50
Median		4.00	4.00	4.00	4.00	4.00	4.00	2.00
Mode		5	4	5	4	4	4	2
Std. Deviation		.968	.986	.864	.964	.902	1.010	1.153
Variance		.937	.972	.746	.930	.813	1.020	1.329
Skewness		-1.096	-.773	-1.559	-.808	-.738	-.544	.602
Std. Error of Skewness		.365	.365	.365	.365	.365	.365	.365
Kurtosis		1.215	.449	3.650	.539	.830	-.699	-.282
Std. Error of Kurtosis		.717	.717	.717	.717	.717	.717	.717
Range		4	4	4	4	4	3	4
Minimum		1	1	1	1	1	2	1
Maximum		5	5	5	5	5	5	5

i17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	1	2.4	2.4	4.8
	3	8	19.0	19.0	23.8
	4	14	33.3	33.3	57.1
	5	18	42.9	42.9	100.0
	Total	42	100.0	100.0	

i18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	3	7.1	7.1	9.5
	3	9	21.4	21.4	31.0
	4	18	42.9	42.9	73.8
	5	11	26.2	26.2	100.0
	Total	42	100.0	100.0	

i20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	3	5	11.9	11.9	14.3
	4	16	38.1	38.1	52.4
	5	20	47.6	47.6	100.0
	Total	42	100.0	100.0	

i29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	19.0	19.0	19.0
	2	16	38.1	38.1	57.1
	3	10	23.8	23.8	81.0
	4	5	11.9	11.9	92.9
	5	3	7.1	7.1	100.0
	Total	42	100.0	100.0	

i21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	4	9.5	9.5	11.9
	3	8	19.0	19.0	31.0
	4	21	50.0	50.0	81.0
	5	8	19.0	19.0	100.0
	Total	42	100.0	100.0	

i26

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	3	7.1	7.1	9.5
	3	11	26.2	26.2	35.7
	4	21	50.0	50.0	85.7
	5	6	14.3	14.3	100.0
	Total	42	100.0	100.0	

i27

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	6	14.3	14.3	14.3
	3	7	16.7	16.7	31.0
	4	17	40.5	40.5	71.4
	5	12	28.6	28.6	100.0
	Total	42	100.0	100.0	

Appendix D: Descriptive Statistics - Academic Self-Esteem

Statistics

		i7	i30	i31	i32	i36
N	Valid	42	42	42	42	42
	Missing	0	0	0	0	0
Mean		4.55	3.67	4.40	3.79	4.05
Median		5.00	4.00	5.00	4.00	4.00
Mode		5	4	5	4	4
Std. Deviation		.705	.928	.767	.951	.825
Variance		.498	.862	.588	.904	.681
Skewness		-1.708	-.996	-1.537	-.618	-.364
Std. Error of Skewness		.365	.365	.365	.365	.365
Kurtosis		3.130	1.727	2.805	.460	-.725
Std. Error of Kurtosis		.717	.717	.717	.717	.717
Range		3	4	3	4	3
Minimum		2	1	2	1	2
Maximum		5	5	5	5	5

i7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	2.4	2.4	2.4
	3	2	4.8	4.8	7.1
	4	12	28.6	28.6	35.7
	5	27	64.3	64.3	100.0
	Total	42	100.0	100.0	

i30

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	1	2.4	2.4	7.1
	3	12	28.6	28.6	35.7
	4	21	50.0	50.0	85.7
	5	6	14.3	14.3	100.0
	Total	42	100.0	100.0	

i31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	4.8	4.8	4.8
	3	1	2.4	2.4	7.1
	4	17	40.5	40.5	47.6
	5	22	52.4	52.4	100.0
	Total	42	100.0	100.0	

i32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	2	4.8	4.8	7.1
	3	12	28.6	28.6	35.7
	4	17	40.5	40.5	76.2
	5	10	23.8	23.8	100.0
	Total	42	100.0	100.0	

i36

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	2.4	2.4	2.4
	3	10	23.8	23.8	26.2
	4	17	40.5	40.5	66.7
	5	14	33.3	33.3	100.0
	Total	42	100.0	100.0	

Appendix E: Descriptive Statistics - Sleep Health

Statistics

		i4	i6	i8	i11	i16	i22	i25	i28
N	Valid	42	42	42	42	42	42	42	42
	Missing	0	0	0	0	0	0	0	0
Mean		3.40	3.10	3.43	3.33	3.52	3.64	3.12	2.95
Median		3.00	3.00	3.00	4.00	3.50	4.00	3.00	3.00
Mode		3	3	3	4	3	4	3	3
Std. Deviation		1.037	1.055	1.063	1.004	.833	.958	1.064	.854
Variance		1.076	1.113	1.129	1.008	.695	.918	1.132	.729
Skewness		.198	-.198	-.316	-.731	.054	-.604	-.120	-.646
Std. Error of Skewness		.365	.365	.365	.365	.365	.365	.365	.365
Kurtosis		-1.074	-.519	-.242	-.331	-.457	.246	-.373	.090
Std. Error of Kurtosis		.717	.717	.717	.717	.717	.717	.717	.717
Range		3	4	4	4	3	4	4	3
Minimum		2	1	1	1	2	1	1	1
Maximum		5	5	5	5	5	5	5	4

i4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	9	21.4	21.4	21.4
	3	15	35.7	35.7	57.1
	4	10	23.8	23.8	81.0
	5	8	19.0	19.0	100.0
	Total	42	100.0	100.0	

i6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	7.1	7.1	7.1
	2	9	21.4	21.4	28.6
	3	14	33.3	33.3	61.9
	4	13	31.0	31.0	92.9
	5	3	7.1	7.1	100.0
	Total	42	100.0	100.0	

i8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	5	11.9	11.9	16.7
	3	15	35.7	35.7	52.4
	4	13	31.0	31.0	83.3
	5	7	16.7	16.7	100.0
	Total	42	100.0	100.0	

i11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	8	19.0	19.0	23.8
	3	8	19.0	19.0	42.9
	4	22	52.4	52.4	95.2
	5	2	4.8	4.8	100.0
	Total	42	100.0	100.0	

i16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	9.5	9.5	9.5
	3	17	40.5	40.5	50.0
	4	16	38.1	38.1	88.1
	5	5	11.9	11.9	100.0
	Total	42	100.0	100.0	

i22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	4	9.5	9.5	11.9
	3	11	26.2	26.2	38.1
	4	19	45.2	45.2	83.3
	5	7	16.7	16.7	100.0
	Total	42	100.0	100.0	

i25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	7.1	7.1	7.1
	2	8	19.0	19.0	26.2
	3	16	38.1	38.1	64.3
	4	11	26.2	26.2	90.5
	5	4	9.5	9.5	100.0
	Total	42	100.0	100.0	

i28

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	7.1	7.1	7.1
	2	7	16.7	16.7	23.8
	3	21	50.0	50.0	73.8
	4	11	26.2	26.2	100.0
	Total	42	100.0	100.0	

Appendix F: Descriptive Statistics - Academic Autonomy

Statistics

		i9	i14	i24	i33
N	Valid	42	42	42	42
	Missing	0	0	0	0
Mean		4.10	3.45	3.90	4.50
Median		4.50	3.00	4.00	5.00
Mode		5	3	5	5
Std. Deviation		1.100	1.152	1.100	.917
Variance		1.210	1.327	1.210	.841
Skewness		-1.004	-.079	-.842	-1.792
Std. Error of Skewness		.365	.365	.365	.365
Kurtosis		.145	-1.068	.365	2.136
Std. Error of Kurtosis		.717	.717	.717	.717
Range		4	4	4	3
Minimum		1	1	1	2
Maximum		5	5	5	5

i9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	3	7.1	7.1	9.5
	3	8	19.0	19.0	28.6
	4	9	21.4	21.4	50.0
	5	21	50.0	50.0	100.0
	Total	42	100.0	100.0	

i14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2.4	2.4	2.4
	2	9	21.4	21.4	23.8
	3	12	28.6	28.6	52.4
	4	10	23.8	23.8	76.2
	5	10	23.8	23.8	100.0
	Total	42	100.0	100.0	

i24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4.8	4.8	4.8
	2	1	2.4	2.4	7.1
	3	12	28.6	28.6	35.7
	4	11	26.2	26.2	61.9
	5	16	38.1	38.1	100.0
	Total	42	100.0	100.0	

i33

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	7.1	7.1	7.1
	3	3	7.1	7.1	14.3
	4	6	14.3	14.3	28.6
	5	30	71.4	71.4	100.0
	Total	42	100.0	100.0	

Appendix G: 1st Draft of Questionnaire

Sleep Habits and Quality

I sleep at least 7 hours every night of the week

I fall asleep at a similar time every night

I do what I can to make sure I get sufficient sleep

I feel fully rested when I wake up I look forward to falling asleep

I wake up at a similar time every night It is easy to fall asleep

I experience enough sunlight on a daily basis

I look forward to getting outside everyday

Sociability Through School

I have had enjoyable social interactions with my classmates

Seeing my classmates at school is something I look forward to

I have spent time outside of campus with one of my classmates by mutual choice

When it is the start of a new semester I look forward to meeting new people

I am usually happy to meet new people at school

Academic Enjoyment

I have experienced more than one enjoyable lecture in college

I want to be prepared for class so that I can maximize my ability to absorb new content

I feel extremely satisfied when I apply my abilities to the fullest extent in my coursework

I feel extremely satisfied when I complete my coursework

I look forward to the challenging aspect of collegiate education

I look forward to learning at new things through my coursework

I enjoy talking about coursework and lecture content with my classmates

Choice of Major

Major: _____

My family gave me full freedom over my choice of major

My major represents an area that I want to pursue a career in

Appendix H: 2nd Draft of Questionnaire

Sleep Habits and Quality

I sleep at least 7 hours every night of the week

I fall asleep at a similar time every night

I do what I can to make sure I get sufficient sleep

I feel fully rested when I wake up

I am satisfied with the amount of sleep

I get I do not feel tired during class

I wake up at a similar time every morning

~~Sociability Through School~~ Interpersonal Relationships Through School

I have had enjoyable social interactions with my classmates

Seeing my classmates at school is something I look forward to

I have hung out with friends from school outside of campus for extended periods of times

I have made multiple meaningful friendships through school

I look forward to sharing ideas with classmates during class discussions

When it is the start of a new semester I look forward to meeting new people

I am usually happy to meet new people at school

Academic Enjoyment

I have experienced more than one enjoyable lecture in college

I want to be prepared for class so that I can maximize my ability to absorb new content

I feel extremely satisfied when I apply my abilities to the fullest extent in my coursework

I feel satisfaction from completing my coursework

When coursework feels difficult I do not hate it

I look forward to the challenging aspect of collegiate education

I look forward to learning new things through my coursework

When coursework is difficult, I am confident in my ability to prevail

Choice of Major

Major: _____

My family gave me full freedom over my choice of major

My major represents an area that I want to pursue a career in

Appendix I: 3rd Draft of Questionnaire

Sleep Habits and Quality

I sleep at least 7 hours every night of the week

I fall asleep at a similar time every night

I do what I can to make sure I get sufficient sleep

I feel fully rested when I wake up

I am satisfied with the amount of sleep I get

I do not feel tired during class

I wake up at a similar time every morning

I try to expose myself to sunlight early in my day

Interpersonal Relationships Through School

I have had enjoyable social interactions with my classmates

Seeing my classmates at school is something I look forward to

I have hung out with friends from school outside of campus for extended periods of times

I have made multiple meaningful friendships through school

I look forward to sharing ideas with classmates during class discussions

When it is the start of a new semester I look forward to meeting new people

I am usually happy to meet new people at school

~~Academic Enjoyment~~

~~I have experienced more than one enjoyable lecture in college~~

~~I want to be prepared for class so that I can maximize my ability to absorb new content~~

~~I feel extremely satisfied when I apply my abilities to the fullest extent in my coursework~~

~~I feel satisfaction from completing my coursework~~

~~When coursework feels difficult I do not hate it~~

~~I look forward to the challenging aspect of collegiate education~~

~~I look forward to learning new things through my coursework~~

~~When coursework is difficult, I am confident in my ability to prevail~~

Academic Conscientiousness

I feel satisfaction from completing my coursework

I want to be prepared for class so that I can maximize my ability to absorb new content

When coursework is difficult, I am confident in my ability to prevail

I feel extremely satisfied when I fully apply my abilities to the fullest extent in my coursework

I look forward to the challenging aspect of education

It is important for me to be fully caught up on material so that I can maximize what I learn from lectures

I do not experience academic burn out often

Academic Self-Esteem

I am confident that I will receive my degree

I do not worry too much about school because I am confident I will get all my work done

I know I will be able to pass all my classes if I work hard enough

I feel comfortable participating during class

I feel comfortable participating during class, even if what I share may be wrong

Major and Academic Autonomy

Major: _____

My family gave me full freedom over my choice of major

I am satisfied with the major I have chosen

I have always been interested in studying the major that I have chosen

My major represents an area that I want to pursue a career in

Appendix J: Final Cover Letter

Greetings Undergraduate College Student,

My name is Spencer Rogovin and I am conducting a survey for my survey design course (PSY3620) that attempts to measure academic enjoyment and sleep health. Academic enjoyment is perceived as consisting of a student's interpersonal relationships through school, academic autonomy, academic conscientiousness and academic self-esteem.

Students sacrifice tons of financial, mental, and emotional resources to complete an undergraduate education. Being able to better understand how much current undergraduate students enjoy their academics as well as their sleep health and quality of sleep can help society evaluate where it's lacking so that all people can more productively chase their dreams.

This survey consists of 38 questions and should take roughly 10-15 minutes to complete. As an undergraduate student, you are the perfect candidate for this survey. Thank you in advance for providing feedback that will help improve the lives of college students. This survey is being conducted via Google Forms and is 100% anonymous. Responses will be submitted for review as soon as you are done.

You can contact me at spencer.rogovin@temple.edu for any questions or concerns about the questionnaire or survey process.

Best,

Spencer Rogovin

Appendix K: Final Questionnaire Items

Sleep Health

4. I sleep at least 7 hours every night of the week.

6. I am satisfied with the amount of sleep I get.

8. I try to expose myself to sunlight early in my day.

11. I fall asleep at a similar time every night.

16. I do what I can to make sure I get sufficient sleep.

22. I wake up at a similar time every morning.

25. I sleep well so I don't feel tired in class.

28. I feel fully rested when I wake up.

Interpersonal Relationships Through School

5. I am usually happy to meet new people at school.

10. I have had enjoyable social interactions with my classmates.

12. Seeing my classmates at school is something I look forward to.

13. I have made multiple meaningful friendships through school.

19. I have hung out with friends from school outside of campus for extended periods of time.

23. I look forward to sharing ideas with classmates during class discussions.

34. When it is the start of a new semester I look forward to making new friends at school.

38. I have had enjoyable social interactions with other students from the university.

Academic Conscientiousness

17. I feel satisfaction from completing my coursework in my major.

18. I want to be prepared for class so that I can maximize my ability to absorb new content.

20. I feel satisfied when I apply my abilities to the fullest extent in my coursework.

21. In demanding times, I am confident in my ability to prevail.

26. I look forward to the challenging aspect of education.

27. It is important for me to be fully caught up on material so that I can maximize what I learn from lectures.

29. I rarely experience academic burnout.

Academic Self-Concept

7. I am confident that I will graduate.

30. I am confident that I can keep up with academic workload.

31. I am confident I will be able to pass all my classes if I work hard enough.

32. I feel comfortable participating during class, even if what I share may be wrong.

36. I feel comfortable participating during in courses related to my major.

Academic Autonomy

9. I am satisfied with the major I have chosen.

14. I have always been interested in studying the major that I have chosen before college.

24. I look forward to pursuing a career that is related to my major.

33. My family gave me full freedom over my choice of major.