

Who Are We Educating? Why Undergraduate Students Choose to Major in Communication

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This study examined student traits and major characteristics that might lead students to choose communication as a major by collecting survey responses from 476 undergraduate students. Attitudes about the major and potential jobs, expected norms from parents, and areas of perceived behavioral control based on student anxieties were analyzed as predictors of choosing the communication major. Short term benefits of taking communication classes as well as the long-term benefits predicted students' intention of graduating with a communication major. The perception that the major required little math was associated with choosing the major for those higher in math anxiety.

Key Words: College Major Choice, Theory of Reasoned Action, Communication Departments

One of the important factors in administering a productive communication program is understanding the perceptions that incoming students may have of that program. When university funding models are based on enrollment and credit hours, and the public perception of the rigor of our discipline is evaluated by the abilities of our graduates, much of the fate of our discipline rests in the decision-making processes of eighteen to twenty-two year olds. A greater understanding of how undergraduate students view the major can help communication administrators and faculty design appropriate and engaging curriculum and market both the program and the graduates of the program.

Choosing a college major is one of the most important life choices that an individual can make (St. John, 2000). However, as Beggs, Bantham, Mullins, and Taylor (2008) argued, there is plenty of anecdotal evidence suggesting students choose a major not based on academic passions but rather superficial heuristics, such as a desire to avoid math and/or tedious class work. Knowing how students view the communication major can help communication programs appropriately frame their expectations and goals for a communication education. Other disciplines, in particular accounting, have taken steps to determine how undergraduates view and choose their major (Apostolou, Hassell, Rebele, & Watson, 2010; Miller & Stone, 2009). However, despite the importance of this issue, little published research has attempted to determine what drives undergraduate student interest in majoring in communication.

Communication is traditionally a popular major (Princeton Review, 2012) with 794 institutions across the nation granting baccalaureate degrees in communication (NCA, 2011). However, we contend from our experience with students and others that general perceptions of the discipline may not have changed much since McBath (1976) argued "most people outside of our field, both within and outside the schools, have only a hazy notion of the content and outcomes of communication education" (p. 80). It is useful for those who work in communication education to understand the attitudes and beliefs potential communication majors hold for at least two reasons.

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The first reason is that awareness of student expectations and goals can help communication educators and administrators avoid blatantly violating these expectations. Students might choose their major based on less than lofty goals, such as avoiding math (Baus & Welch, 2008) or a perception that the courses will be easy (Beggs et al., 2008). Of course, many of our communication research methods instructors believe that quantitative skills are often an important component of a communication program. In other courses, students who anticipated an easy ride may feel frustrated when asked to think and write critically about the philosophical underpinnings of message processes. The reverse may also be true; students with strong interest in the potential intellectual challenges may be disheartened if they hear others describing their major as less than rigorous. Either way, if communication educators do not understand student perspectives, we risk unwittingly violating expectations in our courses and programs. While we most certainly do not advocate reducing the educational rigor of our courses, we do argue that instructors who are aware of students' pre-conceptions have the opportunity frame their communications with students in ways that ameliorate the negative effects of potential expectancy violations.

The second reason is to improve communication departments' ability to recruit high quality students. The communication major is often a "discovery" major; one that students transfer into after they have arrived on campus. Understanding student's perceptions of communication could improve overall marketability of both the degree and graduates of communication programs. Those who are interested in improving communication courses and programs might benefit from knowing what perceptions drive students to enroll in said courses.

One way to consider student perceptions is to examine the attitudes and beliefs that inform their behavior in regards to major choice. The Theory of Reasoned Action (TRA; Fishbein & Ajzen, 2010) provides explanatory mechanisms for the connections between attitudes, beliefs, and behaviors. Thus, an exploratory study was constructed with the theory of reasoned action and previous research from other disciplines as a guide. The TRA will be briefly explicated before we turn our attention to extant college major choice research and the various issues that might predict student interest in the communication major.

The Theory of Reasoned Action

The TRA positions behavioral intention as the most proximal predictor of behavior (Fishbein & Ajzen, 2010). Once people have formed an intention to do something, they are likely to behave in accordance with that intention. In turn, intentions are predicted to be the weighted sum of *attitudes*, *subjective norms*, and *perceived behavioral control*.

Attitudes

Attitudes are based on the *valence* of the likely outcomes of performing the behavior. In other words, attitudes are based on what desirable outcomes an individual perceives as associated with that behavior. There are a variety of outcomes associated with choosing a particular major that could affect students' desire to choose that major. Some potential short-term outcomes are associated with possible benefits students might accrue in taking particular classes. For example, students might be more interested in a major with fun classes and/or they might want classes that will provide them with useful skills (Keillor, Bush, & Bush, 1995). Beggs et al. (2008) found student interest in course content was a strong predictor of major choice. Other research suggests students want a major with wide variety of classes (Pappu, 2004).

In addition to the benefits of the coursework, in the short-term students might also be concerned about practical issues. They may want a major with a credit load that enables them to

graduate on time in order to avoid another expensive year of college. They may also be concerned that their grade point average is not high enough or that they will have difficulty signing up for classes that fill too quickly. Although extant research on major choice tends to focus on interest in the major (Pappu, 2004) or economic concerns (Montmarquette, Cannings, & Mahseredjian, 2002) students' expected outcomes associated with entering a major and graduating may also be strong predictors of major choice.

In regards to long-term outcomes, a consistent predictor of major choice found in previous research concerns the employment available to students' with a particular major. In particular, predicted income associated with a major is a strong determinant of major choice (Arcidiacono, Hotz, & Kang, 2011; Montmarquette et al., 2002). Aside from income, the sheer predicted availability of jobs for people with a given major is also associated with major choice (Beggs et al., 2008). The long-term outcomes associated with a major are likely to be strongly associated with the ability to find employment, preferably lucrative employment.

Subjective Norm

Subjective norms refer to the behaviors an individual perceives that others who are important to that individual want the individual to perform. Fishbein and Azjen (2010) argued people are more likely to perform a behavior if they perceive important others want them to perform the behavior. Some research suggests that parents and friends may be the important others who influence students' major decisions major (Newell, Titus, & West, 1996). Parents' opinions and perceptions of majors may influence students' enrollment choices. Students might also be influenced to take communication courses if they have a high number of friends already in the major.

Perceived Behavioral Control

Finally, perceived behavioral control is composed of beliefs about one's personal capacity to perform the behavior. Essentially, people must feel that they possess the skills and abilities required to perform the behavior and that there are no substantial external hurdles that would prevent them from successfully performing the behavior. Several factors may influence students' perceived behavioral control regarding their ability to graduate with a particular major. Anxieties and apprehensions about particular skills sets may influence perceived behavioral control. Individuals may be drawn toward majors they feel they have aptitude for and away from majors where they feel they lack behavioral control (Beggs et al., 2008; Pringle, Dubose, & Yankey, 2010; Pritchard, Potter, & Sacucci, 2004). In particular, we expect that three specific variables, communication apprehension, math anxiety, and writing anxiety may be related to students' choice of major. *If students' possess anxiety regarding their academic skills in math, writing, and communication, students' beliefs about what communication courses require regarding math, writing, and communication may be likely to predict their interest the communication major.* Therefore,

RQ₁: Does student anxiety about their academic skills in math, writing, and communication predict interest in the communication major?

Communication apprehension is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1977, p. 78). Individuals who are highly communication apprehensive anticipate negative outcomes from communication, suffer anxiety if forced to communicate, and tend to withdraw from social situations (McCroskey, 1970). Students should recognize that completing a communication

degree will include multiple occasions where one must complete communication tasks such as public presentations or group assignments. Thus, individuals who are highly communication apprehensive may avoid communication as a major choice. Conversely, individuals who experience little apprehensiveness regarding communicating may be drawn to communication as a major choice.

Math anxiety is the experience of tension when faced with attempting to solve mathematical problems (Richardson & Suinn, 1972). Baus and Welch (2008) found that math anxiety scores were a strong predictor of major choice for communication students. Individuals with higher math anxiety scores were more likely to choose communication than business majors. At many institutions, including the one where this research was conducted, communication requires less specific math courses (including statistics and accounting) than majors such as business or psychology. Thus, students with math anxiety may choose communication as a way of avoiding math components of other majors.

Individuals who suffer from writing apprehension experience a fear of evaluation of their writing (Daly & Miller, 1975). Daly and Shamo (1978) argued students' major choice might be predicted partially by their level of writing apprehension. Students with higher levels of writing apprehension may choose majors where they anticipate less writing will be required. Given that writing is a form of communication, we hope students might perceive a communication program as fairly writing intensive. This prediction is in line with Daly and Shamo's finding (1978). This finding has been corroborated by more recent work by Wiltse (2006) which found *communication majors had lower mean scores on writing apprehension than other majors*. Therefore,

H₁: The perception that communication does not require writing will be positively associated with choosing the communication major for those with high levels of writing anxiety.

Study Overview

This study was conducted with students at a midsize comprehensive university who were in the final week of the basic introduction to communication class. This class contains a variety of majors as it counts as a general education class. At this point in the basic course it is expected that students will know enough about communication as a field to be considering the major. They were surveyed concerning their interest in communication and as well as their perceptions of communication. The questionnaire was designed to investigate if the above perceptions and abilities would be associated with interest in becoming a communication major. This investigation is exploratory in nature and should be considered an initial attempt to begin to determine which perceptions and traits are associated with choosing to major in communication.

Method

Sample

Participants were recruited from a basic survey course of communication theory near the end of the semester. They were given extra credit in exchange for their participation. There were 476 participants (171 male, 236 female, 69 did not indicate their sex). Their ages ranged from 18 to 46 ($M = 19.66$, $SD = 2.50$).

Procedure

Participants completed an online survey including an online consent form. The online survey contained measures concerning their perception of the communication major, their likelihood of graduating with a communication major, anxiety measures, and demographics. Finally, the participants were thanked for their time and the survey took them to a separate data collection survey for them to indicate their personal information for assigning extra credit.

Instrumentation

Interest and Choice of Communication Major. The participants were first asked their perceived likelihood of graduating with a communication major on an eight-point scale ranging from “I will definitely not graduate with that major” to “I will definitely graduate with that major.” The distribution was skewed positively as the modal response was the lowest likelihood of choosing the major. They were also asked what their current major was and 15% indicated they were already communication majors.

Original Perceptions of the Major Measures. Items were created based on the theoretic arguments above to investigate students’ reasons for choosing a major. The response scale for these items was a 7-point scale ranging from “Not at all important” to “Extremely Important.” Six items were written to tap the belief that choosing the communication major will have positive short term consequences to form the “benefits from classes” scale (see Appendix A for all new items). These items focused on the enjoyment from taking the classes in the major and the immediate benefits from those classes. Three other items were written to measure the expectation of positive long-term consequences from the major stemming from the career that such a major might lead to. These items formed the “job prospects” scale. Another three items were written to capture the practical aspects of choosing the major and included the ability to get into the classes and graduating on time to form the “practical concerns” scale. An additional item was written to measure the belief that the communication major would not be difficult. One item asked if the participants thought the major did not require much math and another asked the same about writing. Finally, two items were written to measure descriptive (focused on friends) and injunctive norms (focused on parents). This measurement model was examined using confirmatory factor analysis (Gerbing, 2012; Gerbing & Hamilton, 1994; Hunter & Gerbing, 1982). Model fit was determined by examining the root mean squared error (RMSE) which can be interpreted similarly to RMSEA. The data were consistent with the model (RMSE = .06). See Table 1 for means, standard deviations, and reliability estimates for all measures.

Trait Measures. Communication apprehension in the sub-sections of public speaking, interpersonal communication, small group, and classroom discussion was measured using McCroskey’s (1982) PRCA-24. The sub-area of meetings (large groups) was adapted to reflect communication apprehension in the classroom rather than meetings. Negatively phrased items were reverse coded. A confirmatory factor analysis was conducted to confirm the factor structure of the PRCA-24. The overall model was not consistent with the data (RMSE = .45). Extensive model testing did not produce a model consistent with the data. Closer examination of the error matrix suggested that within each of the four factors, the negatively worded items were not correlating with the positively worded items. Therefore, only the positively worded items that indicated the presence of each anxiety were maintained. That model was a closer fit with the data (RMSE = .06).

Writing apprehension was measured using Daly and Miller's (1975) writing apprehension instrument. The twenty-six items in this scale are intended to represent a single factor of writing apprehension. Although the initial estimate of reliability was adequate ($\alpha = .79$), an examination of the inter-item correlations indicated that the alpha calculation was benefitting from the large number of items. The data were not consistent with the measurement model (RMSE = .16).

Table 1
Means, Standard Deviations, and Reliabilities for Factors
Predicted to be Associated with Communication Major Choice

| | # items | M | SD | alpha |
|------------------------------|---------|------|------|-------|
| Comm Major Intent | 1 | 3.54 | 2.70 | - |
| Benefits from Classes | 6 | 5.05 | 1.22 | .90 |
| Job Prospects | 3 | 4.57 | 1.42 | .90 |
| Practical Concerns | 3 | 4.60 | 1.16 | 0.71 |
| Not Difficult | 1 | 4.00 | 1.44 | - |
| No Math | 1 | 4.53 | 1.80 | - |
| No Writing | 1 | 4.02 | 1.62 | - |
| Descriptive Norm | 1 | 4.05 | 1.98 | - |
| Injunctive Norm | 1 | 4.63 | 1.71 | - |
| PRCA Group Pos Items | 3 | 4.68 | 1.47 | 0.77 |
| PRCA Class Pos Items | 3 | 4.53 | 1.54 | 0.89 |
| PRCA Interpersonal Pos Items | 3 | 4.71 | 1.48 | 0.89 |
| PRCA Speaking Pos Items | 3 | 4.1 | 1.55 | 0.85 |
| Lack of Enjoyment in Writing | 9 | 4.37 | 1.19 | 0.87 |
| Writing Anxiety | 9 | 4.66 | 1.30 | 0.89 |
| Math Anxiety | 4 | 4.18 | 1.83 | .90 |

The error matrix suggested that there were two separate factors that were labeled *writing anxiety* and *lack of enjoyment in writing*. Additionally, nine items had to be dropped as they produced unacceptably high errors. Confirmatory factor analysis was consistent with model fit for this model (RMSE = .06).

Math anxiety was measured using 9 items from Betz's (1978) math anxiety scale. An initial confirmatory factor analysis showed that initial item structure proposed by Betz proved to be a poor fit for the data (RMSE = .19). Examination of the error matrix suggested that the negatively worded items were contributing to the error so only the positively worded items were retained. This model was consistent with the data (RMSE = .01).¹

Results

Initially, the relationships between the predictor variables and the students' predicted likelihood of adopting a major in communication are examined. Then the predicted interactions between skills required for the major (writing and math) and anxieties associated with those skills are then regressed onto communication major likelihood.

¹ The full measurement model with the reduced multi-item measures was also tested with AMOS and the results were consistent with model fit (CFI = .92, RMSEA = .05).

Predicting Communication Major Likelihood with Direct Effects

To determine which perceptions and communication anxieties are associated with intending to choose the communication major the participants' estimate of the likelihood they will choose to be a communication major was regressed on benefits from classes, job prospects, practical concerns, belief the major is not difficult, descriptive norm, injunctive norm, and the positive PRCA scales. The predictors explained a substantial portion of the variance $R^2 = .19$, $F(10, 391) = 9.09$, $p < .001$ (see Table 2 for a model summary). Benefits from classes and job prospects both emerged as substantial and statistically significant predictors. The other perceptions of the major, normative concerns, and the PRCA subscales were neither substantial nor statistically significant predictors.

| Predictor | β | p |
|------------------------------|---------|--------|
| Benefits from Classes | 0.25 | < .001 |
| Job Prospects | 0.24 | <.001 |
| Practical Concerns | -0.06 | 0.31 |
| Not Difficult | 0.00 | 0.97 |
| Descriptive Norm | 0.03 | 0.53 |
| Injunctive Norm | 0.02 | 0.74 |
| PRCA Group Pos Items | 0.05 | 0.46 |
| PRCA Class Pos Items | 0.01 | 0.86 |
| PRCA Interpersonal Pos Items | -0.12 | 0.11 |
| PRCA Speaking Pos Items | 0.07 | 0.26 |

Interactions between Expected Skills and Anxieties

It was predicted that the perceptions that major does not require substantial amounts of writing and that it does not require substantial amounts of math would be associated with choosing the major but only for those students who possessed high levels of anxiety about those skills. To test these hypotheses, three regression models were calculated in which all of the predictors were entered simultaneously. First the belief that the major requires little writing, the writing anxiety scale, and their interaction were entered into a regression equation with likelihood of choosing the major as the outcome variable. The only substantial effect was a statistically significant main effect for the belief that the major does not require writing such that the belief was associated with a stronger intent to be a communication major, $\beta = .39$, $p = .02$ and the equation was associated with a small but statistically significant multiple correlation, $R^2 = .04$, $F(3, 408) = 6.31$, $p < .01$. A similar regression equation with the lack of enjoyment in writing scale produced similar results, although the main effect failed to reach conventional levels of statistical significance, $\beta = .31$, $p = .08$ and the multiple correlation was statistically significant $R^2 = .05$, $F(3, 409) = 7.32$, $p < .01$. None of the predictor variables were substantial or statistically significant predictors. These results were not consistent with the hypothesis that the effect of the belief that the communication major required little writing on choosing the communication major would be moderated by writing anxiety.

Next, the hypothesis was tested that the belief that the communication major requires little math would be associated with intention to choose the communication major among those with math anxiety. Intention to choose the major was regressed on the belief the major requires little math, the math anxiety items scale, and the product term to represent their interaction. The variables explained a statistically significant portion of the variance $R^2 = .07$; $F(3, 403) = 10.34$, $p < .01$. The interaction was statistically significant ($\beta = .33$, $p = .05$). A median split was performed to interpret the interaction. For the participants high in math anxiety, the correlation between the belief that the major requires little math and intentions was $r = .26$ ($p < .01$). For the participants low in math anxiety, the correlation was smaller, $r = .15$ ($p = .03$). This finding was consistent with the hypothesis as the relationship was expected to be larger for those higher in math anxiety than those who were low.

Discussion

In comparison to other academic fields, the scholarly study of communication as its own discipline is a relatively recent development (Cohen, 1994). For this reason, the study of communication may be viewed as a less serious pursuit than other disciplines.

Indeed, anecdotal evidence from our majors would suggest that students pick the communication major because it is “easy.” These pronouncements can be distressing for instructors who are dedicating their careers to the serious pursuit of knowledge regarding communication processes. However, we take heart that the findings presented here paint a different picture of students’ internal perceptions of the communication major. Understanding these perceptions may help the discipline recruit quality undergraduate students as well as begin to reframe how the discipline is perceived within and without the academy.

Who becomes a Communication Major?

Contrary to anecdotal evidence that structural issues such as easy classes or lower requirements are the reasons students express interest in the communication major, we found that variables specifically related to benefits from the major both in the short and long-term were the main predictors of students considering the communication major. Students holding positive attitudes regarding the subject material covered in communication were more likely to express interest in the major. These findings are useful because promotion of interesting content and the rigor of communication coursework may both draw students to the major and at the same time help combat perceptions of communication as an “easy” choice.

In addition, students who chose communication as a major were more likely to hold positive attitudes regarding employment opportunities. This finding fits with students’ idea that the purpose of a college education is training for future employment (Bertelsen & Goodboy, 2009). Thus, students who have chosen communication as their calling may be more likely to perceive career opportunities in this field. Luckily, for these students research suggests that communication skills and education are important components of many successful careers (for a review see: Morreale, Osborn, & Pearson, 2000; Morreale & Pearson, 2008).

In regards to norms, parental approval of the major was not a significant predictor of intention to graduate with a communication degree. The perception that their friends were communication majors was also not associated with communication major intentions. Students may do what their friends do with regard to the consumption of alcohol (Smith, Atkin, Martell, Allen, & Hembroff, 2006), but they appear to choose their major based on their own needs and interests.

Anxieties about the skills needed for communication classes produced an uneven set of results. Regarding the communication anxieties assessed with the modified subscales of the PRCA (McCroskey, 1970) none were substantial predictors of interest in the major. This study was not the first to have difficulty with the factor structure of the PRCA (Hsiao, 2010). Future research might explore constructs related to communication anxiety such as willingness to communicate (McCroskey, 1992) and shyness (McCroskey & Richmond, 1982) as research suggests that these traits are highly correlated with communication apprehension (Tevin, Richmond, McCroskey, & McCroskey, 2010).

There were substantial relationships uncovered between the belief that the communication major does not require writing and interest in the major. This relationship was not moderated by writing anxiety, inconsistent with the hypothesis that this relationship would be stronger for those with high writing anxiety. This finding raises the possibility that the relationship is not due to anxieties about writing but instead is simply due to students' desire to avoid writing in general.

The data were consistent with Baus and Welch's (2008) findings that communication students experience more math anxiety. There was a substantial relationship between the perception that the major did not require math and choosing the major among those with high levels of math anxiety. The finding does suggest that communication may attract students who wish to avoid additional math classes due to anxiety associated with math.

Limitations

As with any research, there are several limitations to this study. First and foremost, this study only looked at students from one university. Although this project represents important exploratory work on the subject of why students choose to become communication majors, the results may be limited to students in introductory communication courses at this university. Further research might collect data from several different types of universities to determine if these impressions are discipline or department specific.

Additionally, even though behavioral intentions are strongly associated with behavior (Kim & Hunter, 1993), it remains uncertain if the factors that cause a student to express an intention to choose the communication major are the same factors that cause them to actually choose the major. Future research examining cross-sectional data comparing communication majors to non-majors may not be valid as communication majors may report more favorable beliefs to justify the effort they have already put into taking classes in the major (Aronson & Mills, 1959). Longitudinal data are required to determine what factors influence major choice over a cohort of students' college career.

Conclusion

The results of this study suggest that contrary to stereotypes regarding the communication major, undergraduate students in the introductory course are making thoughtful choices regarding communication as a major. Although as a field we should remain aware of and find ways to ameliorate students' math anxieties, these findings should be comforting for communication administrators. Students who view the major as interesting and useful are more likely to choose to major in communication. When attempting to combat negative portrayals of the communication discipline on and off campus, communication administrators can point to these findings of one example where students' intellectual curiosity is the primary driver of their decision to become undergraduate communication scholars. Our job as educators should be to ensure our promotions of our discipline focuses on these positive aspects of the major, as this

may be the best way to both draw in new students as well as maintain the image of the overall discipline.

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Appendix A

Not Difficult

Communication classes are not difficult.

Benefits from Classes

Communication has a wide variety of classes offered.

Communication has classes that will be fun to take.

Communication has classes that will teach me useful skills.

I think the knowledge I will gain from being in Communication will be interesting to me.

I think I will enjoy taking classes in Communication.

It is important for me to understand more about Communication.

Job Prospects

The Communication major will allow me to easily find a job when I graduate.

The Communication major will allow me to find a satisfying job when I graduate.

The Communication major will allow me to find a high paying job when I graduate.

Practical Concerns

The students who choose Communication graduate on time.

The classes that are required for Communication are not filled up so quickly that it is difficult to get into them.

The Communication major does not have a high GPA requirement for admission into the major.

No Math

The Communication major does not require classes that include a large math component.

No Writing

The Communication major does not require a substantial amount of writing.

Injunctive Norm

My parents (or parental figures) would approve of me choosing Communication.

Descriptive Norm

I have friends that have chosen Communication.