# Gender Diversity in Academe: Communication Skills, Promotion and Leadership Opportunities Examined

by

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Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Arts

in the

Professional Communication

Program

YOUNGSTOWN STATE UNIVERSITY

December, 2019

Gender Diversity in Academe: Communication Skills, Promotion and Leadership Opportunities

## Examined

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Running Head: GENDER DIVERSITY

Abstract

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This thesis is a review of recent research on gender diversity in academe and how gender relates

to communication skills, promotion, and leadership opportunities. Perceptions of gender

diversity, equality, and equity were examined across 6 academic colleges within Youngstown

State University. Universities nationwide promote leadership opportunities to knowledgeable

professors and faculty. As gender equity becomes more important with each year, it is essential

that universities adapt to societal norms. Gender is the independent variable in this study. The

value of communication skills, gender diversity at the university, satisfaction with equality, and

perception of gender equity in promotion and leadership opportunities are the dependent

variables that will be discussed in this review in an attempt to identify whether gender diversity

will be correlated with communication skills and if increases in gender diversity are related to

increased perceptions of equity in faculty promotion and leadership.

Keywords: Gender, communication, promotion, leadership

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#### Introduction

Gender in academe has been measured in various fields, from medical divisions to STEM undergraduate programs. Communication is measured through the "communication skills attitude scale" (CSAS) to aid in identifying demographic differences in how much or how little expressing a positive attitude can influence perceived success in an academic field (Cleland, Foster, & Moffat, 2005). Previous research stated that women have had professional limitations from a communication standpoint, including university settings (Rogus-Pulia, Humbert, Kolehmainen, & Carnes, 2018). Equality in promotion and leadership opportunities are outcomes of diversity. The purpose of this study is to explore gender diversity in academe through an examination of communication skills in promotion and leadership. Gender is the independent variable in this study. Communication skills, gender diversity, satisfaction with equality, and perception of gender equity are the dependent variables that will be reviewed to explore whether gender equality is related to faculty promotion and leadership opportunities.

#### **Literature Review**

Norms may be linked to gender differences in communication skills that affect promotion and leadership opportunities. Social norms are a common theme in relation to gender and academe (Nicolai & Demmel, 2007).

#### Barriers for women in academe

Communication skills and gender norms. Cleland, Foster, and Moffat (2005) studied the attitudes of undergraduate students and how they differed toward communication skills. They define communication skills as an individual's ability to send information, and gender norms as how males and females should behave. This article investigates medical students and the best practices they perceived during their journey to become physicians. In the field of medicine, emphasis on patient care is essential to successful caregiving. For this assessment, they used (CSAS) "Communication Skills Attitude Scale", as an attitude measurement in relation to demographic elements" (Cleland, Foster, & Moffat, 2005, p. 246). The study was cross-sectional, spanning Aberdeen University's medical division. First, second, and third year students in the medical program were asked to complete study materials distributed in their introduction lecture.

Women on average leaned towards more positive attitudes toward communication skills (Cleland, Foster, & Moffat, 2005). Men had more of a negative attitude regarding communication skills. For the purpose of my study, men had more negative attitudes, which corresponds with my hypothesis that women value communication more than men. These different attitudes relate to falling out of STEM and norms in medicine, because they define specific work-related roles and behaviors for men and women within science-based fields.

Nicolai and Demmel (2007) studied the impact that gender stereotypes have on communication skills. They assessed physicians' perceptions of medical advisement situations. They had 88 volunteers that were asked to evaluate 6 transcribed scenarios between a physician and the physician's patient. The experimental manipulation was the gender labels listed in the transcripts. There were two sets of transcripts that the participants were asked to assess: one version where the physicians was male, the other where the physician was female. Gender and communication norms was the main focus of this study. They defined empathetic communication as the ability to channel a person's feelings when communicating and they used this idea to highlight key gender discrepancies (Nicolai & Demmel, 2007). Research to date showed that women and men differed in the way they presented themselves and how much emotion they expressed in their roles within the workplace. The results showed that female physicians not only value more empathetic manner toward their patients, but they are also more likely to report empathetic behavior as a physician.

Female physicians emphasize different aspects of care compared with their male colleagues by giving more attention to psychosocial issues, engaging in more emotionally focused talk, and preferring an egalitarian treatment style (Nicolai & Demmel, 2007).

The results of most physician communication studies were self reports from patients and physicians (Nicolai & Demmel, 2007). There were no studies that tested these gender aspects of communication from a patient's perspective. Nicolai and Demmel (2007) studied the impact that gender stereotypes have on communication and the conclusion of this study yielded different results than expected. When looking at male and female empathetic communication, their

behaviors were perceived the same way. The raters that volunteered for this study gave a different rate than the raters that were experts in this field of study: raters that are experts in this field are aware of what to look for when detecting empathy, whereas the volunteers may not have picked up on all of the queues leading to a rating of lesser expertice.

Falling out of STEM and medical fields. A study exploring gender roles in scientific fields indicated that women have made important and noteworthy strides in previously male dominated fields (Gupta, 2019). With education as a tool that increases status, this article highlights the idea that STEM tracks must interest and be geared towards women just as they have been toward men. The focus of this study is based on women in India. While women were enrolled and earning doctoral degrees at higher rates than before, the number of women working in the field was not growing at a sufficient rate. Science and technology areas are motivating women to enter the field due to many sectors for growth. The overall consensus was that the gender gap has been prevalent in employment science fields.

If the data shows an increased number of women attending, advancing, and advocating for themselves, why is there a fallout in the statistics of those working in this area? A further analysis of possible gender gaps went on to highlight a key component that may be a larger contributor to this inequality in gender representation in STEM fields: family support. When women enter the workforce while married and with children, the decisions made during that time period are not solely centered on her. Gupta (2019) concluded that women, success, and career advancement correlates with a positive and successful homelife.

Aside from family obligations, there are economic constraints that inhibit women from thriving fully to enter a full-time position in such a field (Gupta, 2019). Technology and science

degrees normally range in their costs, but they are expensive when compared to other degrees.

Degree expenses may have an impact on women successfully making it through school to a technical or science career.

Societal expectations also play a role in women's lives (Gupta, 2019). Women and men have always been viewed differently when it comes to how they are educated and the benefits their education has for their family. Families put more of an emphasis on men pursuing a degree and providing for their families, rather than an equal emphasis on success for women. After entering a science focused program, women tend to fall out prior to graduating and advancing to a technical career. Gender conformity could be one cause because of social norms. Those willing to break those barriers and not conform to social expectations have to promote change.

Overall, sensitivity to women's issues among masses has increased; yet more needs to be done. Gender sensitivity has to be inculcated in the minds of young boys so that they understand and address gender issues with broader perspectives when they reach the positions to do so both at personal and professional fronts (Gupta, 2019, pg. 1804).

Women have the right to enter professions and seek opportunities equal to men, and they have this right due to the knowledge and experience they bring to the table. Education is one pathway to STEM, doctoral programs are highly saturated with men. Multiple studies seek to understand why there are fewer women pursuing doctorates.

**Pursuit of doctorates**. Besselaar and Sandström (2017) studied culture in higher education to see whether women are intentionally placed in positions possessing less authority than men. These positions are often heavily weighted in classroom work, leading to less access

to sponsors and fewer opportunities to produce research. In regard to grant research, women tend to have limited or less access to resources than men, which, in turn, results in fewer award winning publications. A recent survey study revealed a pattern of gender and ethnicity biases when evaluating doctoral students' research publications (Mendoza-Denton et al., 2017). This exit survey study concluded that there is a negative correlation between the status of minorities in chemistry research. This review of Ph.D. students' publications found that students who are minority were not included in research. Also, female minorities were under-encouraged when it came to publications in contrast with their male minority classmates. In terms of gender alone, it was not a consistent factor in research productivity across disciplines. Being a female and ethnic minority resulted in fewer publications.

These studies highlight the multiple discrepancies that exist in the production of research. When evaluating Ph.D. students, an exit study was chosen to explore biases against women and minorities (Mendoza-Denton et al., 2017). This can be a weakness in relation to the study because as an exit survey, they sampled a narrow selection of students. It could have produced different results having been done when students entered the field.

Publication authorship and methods. Gender may also relate to authorship order in publications. In regard to scientific research studies, there is a hierarchical structure for authorship (Bendels, Müller, Brueggmann, & Groneberg, 2018). When naming the contributors on a study, it is not solely determined by intelligence and knowledge of the subject matter. In an effort to be recognized for funding, it is important to pay close attention to authors' name order in research. Scientific studies normally state the first author as the person who was lead investigator, followed in order by those whose roles were lesser. Bendel et al.'s 2018 results

indicated that women tend to fall behind men in first authorship of scientific research. This analysis viewed publications globally, and found a gender gap exists across the field. Women were responsible for "fewer than 30% of fractionalized authorships worldwide" (p. 2). Where women were the first authors on a study, further examination found that they received fewer citations of their work than men who held similar professional roles.

A recent study investigated gender stereotypes and the limitations they cause for female faculty in communication, science, and disorders (Rogus-Pulia, Humbert, Kolehmainen, & Carnes, 2018). This field of study is currently facing a crisis for the lack of professionals in speech pathology and audiologist careers. The purpose of this study was to reveal the causes that lead to males advancing at a quicker rate than women in the field. Overall, there were many women employed in this field, but they do not receive tenure titles, leadership positions, and other prestigious titles that they should have the opportunity to achieve. The method of data collection for this review was based on doctoral degrees and the status of the men and women who received them. The research on the doctoral degree programs was further broken down by rank, status of tenure, those who were appointed as department chairs within their programs, and additional awards. This additional information was the primary source for exploring gender inequities that were present and possibly swayed the decision to advance and or grant an individual award.

Communication science and disorders attracts more women than men due to the perception that women have superior communication skills (Rogus-Pulia et al., 2018). After entering this field women tend to stop at the undergraduate degree and MA level, as men pursue Ph.D. degrees. Due to higher degree attainment, men may be favored within the hiring process,

because they would rank higher than women on education criteria. In regard to research funding and evaluation of research, women were at a disadvantage compared to men because of men's higher more advanced education. The findings highlighted in this study help researchers understand the inequity present in modern day CSD programs. This field is highly populated with female professionals, and while the favoritism may seem to be on their side, men have the upper hand because they advance further in their education. "To ensure that CSD continues to attract top talent and maintain a robust pipeline of future faculty in doctoral training programs, the field must recognize the existence of implicit gender bias and implement evidence based strategies to minimize its potentially damaging effects on the future of the profession" (Rogus-Pulia, et al. 2018, p.1598).

In summary, there is less advancement for women in science fields. Women produce fewer publications and have lower degree attainment. There is quality research to back up my hypotheses. A common weakness of these studies is that researchers did not look further into the contributors of individual publications. Most of the work was geared toward authorship rather than viewing the roles of each individual when they conducted their research. There is also less research on women advancing in non-STEM fields.

Gender in Academia. Academia is primarily a male dominated profession within universities nationwide (Williams, Kolek, Saunders, Remaly, & Wells, 2017). While gender diversity among faculty has steadily increased, men hold most leadership positions in higher education. Van den Besselaar and Sandström (2017) stated that females are purposely positioned in lesser academic roles. In contrast, Williams et. al (2018) argued that gender inequality should be understood as the outcome of people's chosen method of research. They compared research

studies conducted by both genders and looked at the use of qualitative and quantitative methods. Women faculty were listed as primary author for more qualitative methods, whereas men fell short in that category. In contrast, men ranked higher in quantitative method studies than women. When examining the research method as a factor in this study, researchers concluded that women secured lead authorship and showed significant gains in regard to qualitative research methods. That being said, the study did confirm that there is still gender inequality in overall publication productivity. A recent study from Nickels (2018) suggested that women may turn away from research opportunities due to their workloads. As this review explored women in academia, the imbalance in workload was a key component of the difference in authorship credits. Looking at science and medical fields of study, women are becoming more prominent in this sector of work, leading to increased published research in the medical profession. This is projected to level out the inequality that is present in most work reviewed to date. Present authorship in research may be overrepresented in medicine.

Women tend to have higher teaching workloads, which prevents them from participating in academic research (van den Besselaar & Sandström, 2017). On the other hand, there are areas where women dominate based upon a chosen method of data collection (van den Besselaar & Sandström, 2017). It is valuable to highlight areas where equities are found, while also unveiling ongoing gender inequities. The findings that include varying methods across many areas of study could reveal different results across academic disciplines.

#### **Hypotheses**

There is an observable difference between men and women and their view of communication skills within professional careers (Rogus-Pulia, et al., 2018). There is also an

imbalance in research publications and authorship (Bendels, Müller, Brueggmann, & Groneberg, 2018). Van den Besselaar & Sandström (2017) stated women tend to have more classroom work duties in university settings, whereas men have more opportunities to take part in research studies and produce top citations, leading to more opportunities for leadership and promotion.

The purpose of this study is to explore gender diversity in academe through an examination of how faculty value perceptions of equity and diversity, communication skills, and opportunities. Gender is the independent variable in this study. Communication skills, gender diversity, satisfaction with equality, and perception of gender equity are the dependent variables to explore how gender is related to faculty promotion and leadership in academic careers. There are many factors that contribute to existing inequalities. Communication, faculty promotion, and leadership within higher education are key components that can lead to a better understanding of gender diversity at Youngstown State University. Varying workloads have been recorded in previous research as a possible hindrance of time, inhibiting the publication of research (van den Besselaar & Sandström, 2017). I plan to uncover any potential gender misrepresentations through an analysis and the use of previous studies.

H1: Women value communication more than men.

**H2:** Valuing communication skills, gender diversity, satisfaction with equality, and perception of gender equity are related to equitable promotion and equity in opportunities.

#### Method

**Sample.** A survey was sent through email to all faculty within each college at Youngstown State University for the purpose of this study. The survey was created and housed

in Google Forms. The participants in this study had to be a lecturer, assistant professor, associate professor, or professor in one of the six colleges at Youngstown State University: Beeghly College of Education; Bitonte College of Health and Human Services, Cliffe College of Creative Arts and Communication, College of Liberal Arts and Social Sciences, College of Science, Technology, Engineering and Mathematics, and Williamson College of Business Administration. The survey was sent to both male and female professors. Participation in this survey was on a voluntary basis and the participants did not receive any form of compensation in exchange for their time. Participant statistics were as follows: 45% male versus 50% female; 7% lecturer, 14% assistant professor, 37% associate professor, and 42% professor; and the mean age was 41.

**Procedure.** The participants received the link for Google Form via email, which led them to the survey. Upon agreeing to participate following informed consent, respondents had to agree to being a faculty member, specifically a lecturer, assistant professor, associate professor, or professor within one of the six colleges at Youngstown State University, while also being 18 years of age or older. The survey was made up of 3 sections labeled "communication", "faculty promotion", and "faculty diversity". The communication section housed a matrix of likert scale items. The faculty promotion section had a matrix of likert scale items and one short answer. The faculty diversity section had a matrix of likert scale items. This survey was IRB approved for human subject research (see Appendix A). The participants screen displayed an informed consent form, a section of questions, followed by two demographic questions before the exit of the survey.

#### Measures

Participants responded on a 5-point scale from "Strongly Agree" to "Strongly Disagree", "Very satisfied" to "Very dissatisfied", "Completely Equal" to "Completely Unequal", and one open-ended question to address whether or not gender affects promotion and tenure opportunities at YSU. The two demographic questions were used to identify the participant as male or female and his or her ethnicity.

Value of Communication Skills. Communication skills are the ability to effectively deliver information as the "sender" to the "receiver" in an effort to have full transparency of thoughts (Cleland, Foster, & Moffat 2005). The primary scale of measure was the CSAS (Rees et al., 2002) see Appendix B. The measure was used as the basis for the questions asking about communication skills. The items in this scale titled, "communication skills" measures the extent that people feel communication skills are essential in order to be a good professor. The measure includes four statements to identify the value of communication skills, the importance of one's ability to communicate, and how advanced communication skills aid teaching. Response options range from 5= "Strongly Agree" to 1= "Strongly Disagree". The scale for communication skills in regard to being a good professor was reliable ( $\alpha=.72$ ). Individuals reported slightly positive value of communication skills in reference to a professor's role (M=3.82, SD=.56).

Gender Diversity. In relation to gender diversity at the university, there is a series of questions intended to identify if there is gender diversity within each person's college, program, department, and full-time faculty at Youngstown State University. The first question is used to identify if there is gender balance within the participant's college, with response options of "Very satisfied" to "Very dissatisfied". Following this question is a matrix with 4 statements to

measure gender diversity in full-time faculty, full-time faculty in the participant's college, full-time faculty in the participant's department, and full-time faculty in the participant's program, with response options of "Completely Equal" to "Completely Unequal". The results for gender diversity were reliable ( $\alpha$  = .87). Individuals reported positive perceptions of gender diversity at Youngstown State University (M = 4.1, SD = .67).

**Satisfaction With Equality.** The items in this scale, titled "satisfaction with equality", measure whether there are equal opportunities in promotion and research in relation to gender. It is a matrix of three statements regarding equal opportunities for faculty of differing genders, scholarship opportunities, and overall gender balance within faculty with response options of "Very satisfied" to "Very dissatisfied". Following the matrix, an open-ended question is asked to identify how participants feel gender affects promotion and tenure opportunities at Youngstown State University. The scale for satisfaction with equality, in regard to gender balance, promotion, and scholarship opportunities were reliable ( $\alpha = .77$ ). Individuals reported a slightly higher mean and moderately average standard deviation for equality within the colleges at Youngstown State University (M = 4.1, SD = .63).

**Perception of Gender Equity.** Equity is the perception of equal opportunity within each college of a university (Gupta, 2019). The items in this scale "gender equity" measure perceived gender equity on Youngstown State University's campus. A matrix with 11 statements regarding gender equity at Youngstown State University in different aspects of faculty careers was used with response options of 5= "Completely Equal" to 1="Completely Unequal". Items measured equity in tenure, promotion, research support, grant support, and leadership opportunities. The scale for perception of gender equity at Youngstown State University in different aspects of

faculty careers was reliable ( $\alpha$  = .90). Individuals reported a neutral mean and standard deviation for perception of gender equity at Youngstown State University (M = 3.5, SD = .44).

Analysis. I ran the results of this study through SPSS to determine the alpha, mean, standard deviation, and statistical significance. (2-tailed) in my results section. I began by exporting the responses from my survey to Google Sheets, and then coded responses, separated by gender code: female (1) male (0). Male's and female's responses were compared using an independent t-test. Measures of diversity and equity were analyzed using Person product moment correlations.

#### Results

H1: Women value communication more than men. An independent samples t-test was run for communication skills comparing females and males. The results do not align with hypothesis 1, that stated that women value communication more than men. There was not a significant mean difference (t = 1.66, p = .10). Men (M = 3.4) valued communication skills similarly compared to women (M = 3.6).

H2: Valuing communication skills, gender diversity, satisfaction with equality, and perception of gender equity are related to equitable promotion and equity in opportunities.

A pearson correlation was run for the variables communication skills, gender diversity, satisfaction with equality, and perception of gender equity with satisfaction of gender balance within the participant's college. There was a positive correlation between the four variables (see Table 1).

Table 1: Correlations Among Communication and Gender Equity Variables

	Communication skills	Gender diversity	Satisfaction with equality
Gender diversity	r = .38 $p = .003$		
Satisfaction with equality	r = .49 $p = .000$	r = .69 $p = .000$	
Perception of gender equity in opportunity	r = .33 $p = .010$	r = .37 $p = .003$	r = .39 $p = .002$

An independent samples t-test for equality of means was run to compare mean differences for men and women. The mean differences were not significant in terms of the importance of communication skills (t = 1.66, p = .10) perceptions of gender diversity (t = .77, p = .10), satisfaction with equality (t = 1.42, p = .16), and perception of gender equity(t = 1.86, t = .07). The difference between men's and women's means in the perception of gender equity on campus approached significance t = .07 (See Table 2).

	Male	Female
Communication skills	(M = 3.6, SD = .41)	(M = 3.9, SD = .65)
Gender diversity	(M = 4.0, SD = .68)	(M = 4.1, SD = .66)
Satisfaction with equality	(M = 4.0, SD = .56)	(M = 4.2, SD = .69)
Perception of gender equity in opportunity	(M = 3.4, SD = .45)	(M = 3.6, SD = .38)

My hypothesis 2, that communication skills, gender diversity, satisfaction with equality, and perception of gender equity are related to promotion and leadership opportunities was supported because the correlations were significant. Increases in perceptions and satisfaction were related to diversity. These perceptions were not significantly different between men and women.

## Discussion

**Summary.** This thesis is a review of gender diversity in academe and how gender relates to communication, promotion, and leadership opportunities. Gender equity was examined across six academic colleges within Youngstown State University. I conducted my research through the use of a survey, completed and housed in Google Forms. After analyzing the data, I found that men valued communication skills similar to women.

The difference between men's and women's perception of gender equity on campus approached significance. Overall, there were few mean differences in satisfaction with equality and perception of equal opportunity for promotion, research, and leadership on campus. Prior research suggested that women have fewer opportunities than men due to a higher classroom workload for women (Nickels, 2018). This led me to an understanding that women received fewer opportunities than men, resulting in fewer chances to publish their work as principal investigator, which could assist in a further advancement or leadership opportunities. The argument that women are placed in less authoritative roles within institutional settings is evident when viewing previous research (van den Besselaar & Sandström, 2017). However, I did not find these differences at YSU. My hypothesis 2, that communication skills, gender diversity,

satisfaction with equality, and perception of gender equity are related to promotion and leadership opportunities was supported, so increases in perceptions of diversity and satisfaction were related to opportunities in academic careers.

Limitations. The limitations in my research resulted from the sample used in this study. I gathered information from a survey, in keeping with prior published research. I would have asked each participant which college they taught in, to better understand communication skills, gender diversity, satisfaction with equality, and perception of gender equity. I would have searched for a more diverse pool of individuals to add diversity to my sample. For the purpose of this review, my participants were lecturers, assistant professors, associate professors, or professors in one of the six colleges at Youngstown State University. If I had more time to execute my plan, I would have reached out to all university employees, to take part in this survey to have a larger population to receive responses from. By doing so, I would have been able to gain more insight on the perception of gender from a larger more diverse sample. To summarize, the gathering of data could have been better carried out with a larger sample and more time to analyze my results.

In contrast, I feel the identification of men valuing communication the same as women was a significant finding, although it did not directly align with my hypothesis. The analysis confirmed that increases in perception and satisfaction were related to diversity.

**Directions for Future Research.** This study can be developed to be more in-depth regarding communication skills, gender diversity, satisfaction with equality, and perception of gender equity at the university. In an effort to grow this data, I would look at the perception of gender equity from a more diverse sample than lecturers, assistant professors, associate

professors, and professors. I would expand the pool of participants to include all university faculty and students. I believe asking a pointed question about which college they taught within would be helpful to explore this matter further to understand communication skills, gender diversity, satisfaction with equality, and perception of gender equity on a specific college basis.

#### Conclusion

At this university, men value communication the same as women. Increased perceptions of diversity and satisfaction with equality were related to equity in opportunity. Prior research suggests gender favoritism toward men in institutional settings (van den Besselaar & Sandström, 2017). The analysis of my data did not directly align with my first hypothesis. My second hypothesis that communication skills, gender diversity, satisfaction with equality, and perception of gender equity are related to promotion and leadership opportunities was supported because the correlations were significant. The results yielded findings that had not been found in prior research. Future research should build on this by studying whether perceptions of equity exist across faculty at different ranks and whether it varies across colleges or areas of study.

#### References

- Bendels, M. H. K., Müller, R., Brueggmann, D., & Groneberg, D. A. (2018). Gender disparities in high-quality research revealed by Nature Index journals. *PLoS ONE*, *13*(1), 1–21. https://doi.org/10.1371/journal.pone.0189136
- Cleland, J., Foster, K., & Moffat, M. (2005). Undergraduate students attitudes to communication skills learning differ depending on year of study and gender. *Medical Teacher*, 27(3), 246–251. doi: 10.1080/01421590400029541
- Gupta, N. (2019). Analysing gender gap in science: Government of India initiatives. *Current Science* (00113891), 116(11), 1797–1804.https://doi.org/10.18520/cs/v116/i11/1797-1804
- Mendoza-Denton, R., Fisher, A., Patt, C., Young, I., Eppig, A., Smith, A., & Richards, M. A. (2017). Differences in STEM doctoral publication by ethnicity, gender and academic field at a large public research university. *PLoS ONE*, *12*(4), 1–13. https://doi.org/10.1371/journal.pone.0174296
- Nickels, K. (2018). Gender discrepancies in academic research: "If he can do it, why can't she?" *Epilepsy Currents*, 18(3), 151–152.https://doi.org/
- Nicolai, J., & Demmel, R. (2007). The impact of gender stereotypes on the evaluation of general practitioners' communication skills: An experimental study using transcripts of

- physician–patient encounters. *Patient Education and Counseling*, 69(1-3), 200–205. doi: 10.1016/j.pec.2007.08.013
- Rees, C., Sheard, C., & Davies, S. (2002). The development of a scale to measure medical students attitudes towards communication skills learning: the Communication Skills Attitude Scale (CSAS). *Medical Education*, *36*(2), 141–147. doi: 10.1046/j.1365-2923.2002.01072.x
- Rogus-Pulia, N., Humbert, I., Kolehmainen, C., & Carnes, M. (2018). How gender stereotypes may limit female faculty advancement in communication sciences and disorders.

  \*American Journal of Speech-Language Pathology, 27(4), 1598–1611. doi: 10.1044/2018 ajslp-17-0140
- van den Besselaar, P., & Sandström, U. (2017). Vicious circles of gender bias, lower positions, and lower performance: Gender differences in scholarly productivity and impact. *PLoSONE*, *12*(8), 1–16. https://doi.org/10.1371/journal.pone.0183301
- Williams, E. A., Kolek, E. A., Saunders, D. B., Remaly, A., & Wells, R. S. (2018). Mirror on the field: Gender, authorship, and research methods in higher education's leading journals. *Journal of Higher Education*, 89(1), 28–53. https://doi.org/10.1080/00221546.2017.1330599

#### Appendix: Measure

## Appendix A: IRB Approval



One University Plaza, Youngstown, Ohio 44555 Office of Research 330.941.2377

November 16, 2019

Dr. Rebecca Curnalia, Principal Investigator Ms. Courtney Sedall, Co-investigator Department of Communication UNIVERSITY

RE: HSRC PROTOCOL NUMBER: 052-2020

TITLE: Gender Diversity in Academe - Communication Skills in Promotion and

Leadership

Dear Dr. Curnalia and Ms. Sedall:

The Institutional Review Board has reviewed the abovementioned protocol and determined that it meets the criteria of DHHS 45 CFR 46.104(b)(2) and therefore is exempt from full committee review and oversight. Your project is approved.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.

Sincerely,

Dr. Severine Van Slambrouck Director Research Services, Compliance and Initiatives Authorized Institutional Official

SVS:cc

 Dr. Adam Earnheardt, Chair Department of Communication

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## Appendix B: Communication Skills Attitudes Scale (CSAS)

Please read the following statements about communication skills learning. Indicate whether you agree or disagree with all statements by circling the most appropriate response. Remember,

- 1 strongly disagree
- 2 disagree
- 3 neutral
- 4 agree
- 5 strongly agree
- 1. In order to be a good professor, I must have good communication skills.
- 2. Learning communication skills has helped or will help me better facilitate learning in my classroom.
- 3. Advanced communication skills are essential to becoming a professor.
- 4. My ability to communicate is more important than my experience or research.

Appendix C: Diversity in Faculty and Promotion; in Relation to Communication Skills

Survey

About This Survey

Dear Participant:

I am a graduate student from Youngstown State University. As part of my thesis, we are conducting a study to investigate faculty diversity, promotion, and communication skills. In this study, you will be asked to read and answer questions regarding diversity, promotion, and communication habits. We will also need to collect information to describe you such as age, race, education, and academic rank. Your participation should take less than 10 minutes and should pose no harm or benefit to you. Your participation will help us understand faculty experiences. We are not collecting identifying information from you in this survey, so your responses are anonymous. Your privacy is important and we will handle all information collected about you in a confidential manner. We plan to present the results of the study to faculty and classmates at YSU. We will report the results of the project in a way that will not identify you. We may present this research at conferences and/or publish results. You do not have to be in this study. If you don't want to, you can say no without losing any benefits that you are entitled to. If you do agree, you can stop participating at any time. If you wish to withdraw just exit the survey.

If you have questions about this research project please contact my thesis advisor: Dr. Rebecca Curnalia, Professor in the Department of Communication: rmcurnalia@ysu.edu or (330)475-9295. If you have questions about your rights as a participant in a research project, you may contact the Office of Research at YSU (330-941-2377) or at YSUIRB@ysu.edu

By continuing to complete this survey, you are agreeing that you are over 18 years old and consenting to participate in this research study.

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By clicking below, you are

agreeing to participate in this study,

• confirming that you are 18 years of age or older:

## \* Required

By agreeing to participate in this survey, I am confirming that I am 18 years of age or older and a full-time faculty member \*

Yes

## Communication

Please read and respond to the following.

How strongly do you agree or disagree with each of the following statements?

Strongly agree

Agree

Neither agree no disagree

Disagree

Strongly disagree

In order to be a good professor, I must have good communication skills.

Learning communication skills has helped or will help me better facilitate learning in my classroom.

Advanced communication skills are essential to becoming a professor.

My ability to communicate is more important than my experience or research.

How satisfied or dissatisfied are you with gender balance in your college? \*

Very satisfied

Somewhat satisfied

Neither satisfied nor dissatisfied

Somewhat dissatisfied

Very dissatisfied

## Rate how satisfied or dissatisfied you are with each of the following

Very satisfied

Somewhat satisfied

Neither satisfied nor dissatisfied

Somewhat dissatisfied

Very dissatisfied

Gender diversity among YSU's full-time faculty

Gender diversity among full-time faculty in my college

Gender diversity among full-time faculty in my department

Gender diversity among full-time faculty in my program

# **Faculty Promotion**

Please read the following question and rate your level of satisfaction from very satisfied to very dissatisfied and read the short answer question and provide your answer in the text box below.

# How satisfied or dissatisfied are you with each of the following?

Very satisfied

Somewhat satisfied

Neither satisfied nor dissatisfied

Somewhat dissatisfied

Very dissatisfied

Equal promotion opportunities for faculty of different genders

Equal scholarship opportunities for faculty of different genders

Overall gender balance among faculty

How do you feel gender affects promotion and tenure opportunities at YSU?

Your answer

BACK

# **Faculty Diversity**

Please read the following question and rate your level of satisfaction from completely equal to completely unequal.

We are interested in gender equity on campus. For the following, rate the extent to which you feel there is gender equality at YSU in the different aspects of faculty careers

Completely equal

Mostly equal

Somewhat equal and somewhat unequal

Mostly unequal

Completely unequal

Receiving a tenure-track appointment

Earning tenure

Earning promotion to associate professor

Earning promotion to full professor

Receiving support for scholarship

Opportunities for campus leadership

Participation in grants

Professional development in teaching

Support and resources for scholarship

Opportunities to author and coauthor research

Service opportunities

# **About You**

What is your current age?

Your answer

What gender do you most identify with?

Choose

What is your race?

Choose

My professional title is

Professor

Associate Professor

Assistant Professor

Lecturer

## Thank you for completing our survey

We appreciate the time you took filling out the responses to our survey. Your responses will help students in the Communication MA program learn about the process of data collection and analysis. This is an important skill for them to develop.

As a reminder, if you have questions about this survey, email Dr. Rebecca Curnalia: rmcurnalia@ysu.edu.

Please take a screen shot of this screen to keep for your records using your smartphone, tablet, or a keyboard shortcut (command+shift+3 on a Mac; Windows+PrtScn on some PCs). This is your proof of participation should you need it in the future.