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ABSTRACT

A study involving 108 freshmen and 109 sophomores enrolled in business communication classes at Portsmouth Polytechnic Institute in England examined the following questions: (1) Will there be significant differences between the means of freshmen and sophomores from England in rating trait-CA (communication apprehension), context-CA, and state-CA variables? (2) Will there be significant differences between the mean of biological gender groups and among the means of psychological gender groups, or interaction effects between the independent variables in rating context-CA variables, trait-CA variables, and state-CA variables?; and (3) What are the relationships among trait-CA, context-CA and state-CA variables for freshman students and sophomore students? Results indicated that significant differences occurred between freshman and sophomore groups for two context variables--dyadic and small group. Significant differences also occurred for the trait-CA variables. An examination of the means revealed that sophomores experience dyadic, small group, and trait-CA significantly more frequently than freshmen. No significant differences occurred between year groups on Form State scores. An interpretation of the results seems to indicate that sophomore students are significantly more apprehensive on the variables. (Contains six tables of data and 10 references.) (TB)

AN INVESTIGATION OF TRAIT, CONTEXT AND STATE COMMUNICATION APPREHENSION BETWEEN FRESHMEN AND SOPHOMORE COLLEGE STUDENTS IN ENGLAND

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ABSTRACT

The results of this study indicate that significant differences occurred between freshman and sophomore groups on two context variables--dyadic and small group communication. Sophomores experience dyadic, small group and trait-CA significantly more frequently than freshmen. The correlational results indicate that significant relationships exist among context variables, between context variables and Trait-CA. The magnitude of the relationships,as well as other results will be discussed in this paper.

Research by Payne and Richmond (1983) found 876 published articles and convention papers on topics related to communication apprehension (CA). During the past decade several hundred studies have been completed to determine differences among students at different educational levels, among adults of various professions, between gender groups, and among cultural groups. Most studies focus on the level of apprehension state anxiety, while other deal with context-CA.

Booth-Butterfield and Gould (1986) indicated that the latest evolution of CA has created a rich, new source of conceptual and empirical analysis. In addition, the conceptual tools have increased from McCroskey's (1970) original definition, "broadly based anxiety related to oral communication", to include state, trait, contexts, person-group and situational factors. Booth-Butterfield and Gould's primary concern was with the conceptual aspects of trait-CA, context-CA, and state-CA. That is trait-CA and context-CA are seen as relatively enduring, personality orientations or predisposition to communication in general, or a specific communication setting. Booth-Butterfield and Gould concluded that the context-CA explains a minimum of 50 percent of the state-CA variance and that the level of fear of anxiety varies closely with context, Booth-Butterfield (1988) also indicated that context strongly influences anxiety and avoidance and that motivation reduced reported anxiety for low and high CA students in specific situations. In contrast, state-CA focuses on the "here-and-now" anxiety responses of a person to any communication situation.

Several international studies have been completed. For example, Klopf and Cambra (1979) concluded that United States students scored significantly higher on the PRCA than Australian students. McDowell, McDowell, Pullman and Lindbergs (1981) concluded that no significant differences existed between college students from Australia and the United States and that approximately 20 percent of the students from each country fall into the high apprehensive category.

McDowell and McEwan (1992) used Booth-Butterfield and Gould (1986) communication anxiety instruments because the instruments focus on frequency and specific communication situation participants have experienced rather than level of agreement with a series of statements to determine differences among students from England, Australia, and the United States. The results indicate females are more apprehensive than males on trait-CA, context-CA, and state-CA variables. Within data snooping of the data for each country reveals that females from Australia report that they experience more frequently trait, small group and public speaking anxiety ($p < .01$)

The gender results also reveal that females from England and the United States have higher CA scores than males. The differences, although statistically significant, are much smaller ($p < .05$).

The focus of this study is on freshmen and sophomores from University of Portsmouth Polytechic Institute. Specifically the authors are involved in a longitudinal study in which they are tracking changes from one grade level to another. Although the original research plan was to conduct a panel study, the attrition rate

was too high. Thus, in this study, the researchers compare 1991 freshmen with 1991 sophomores.

RESEARCH QUESTIONS

1. Will there be significant differences between the means of freshmen and sophomores from England in rating trait-CA, context-CA, and State-CA variables?
2. Will there be significant differences between the mean of biological gender groups and among the means of psychological gender groups, or interaction effects between the independent variables in rating context-CA variables, trait-CA variable, and state-CA variable?
3. What are the relationships among trait-CA, context-CA, and state-CA variables for freshmen students and sophomore students?

PROCEDURES

Two samples of students participated in the study. This included 108 freshman (57 males and 51 females) and 109 sophomores (67 males and 42 females) enrolled in business communication classes at Portsmouth Polytechnic Institute in England.

Instruments

Form Trait and Form State and Bem's Sex-Role Inventory were administered to samples of freshmen and sophomores.

a. *Form Trait*

Form Trait is composed 21 self-report items that measure trait-CA, contex-CA (dyadic, small group, public speaking). Trait-CA consists of 7 items each for dyadic, small group, and public speaking. Each items has a 4-point response scale (1=almost never, 2=sometimes, 3=often, and 4=almost always) Scores can range from 21 low (CA) to 84 high (CA). Context scores range from 7 to 28. Research by Booth-Butterfield and Gould (1986) indicated the following: Cronbach's alpha=.989, split half=.919, and lambda ranges from .856 to .919. The reliability estimates for the three context variables ranger from .654 to .887.

B. Form State

In contrast, Form State consists of 20 items which measure the anxiety response in any combination situation. It also consists of a 4-point response scale (1=not at all, 2=somewhat, 3=moderately so, and 4=very much so). Scores can range from 20 (low state anxiety) to 80 (high state anxiety). reliability estimate revealed: alpha .912, split half=.921, and lambda ranges from .865 top . 927.

Bem's Sex-Role Inventory

The BemSex-Role Inventory (BSRI) was developed by Bem in 1974. The instrument consists of 60 items: 20 masculines, 20 feminine items, and 20 social desirability items. Factor analytic techniques were used to determine unidimensional items for each category. Through this procedure, 20 items were selected for each category.

The response categories consist of one ("never true of me") to seven ("always true of me"). In this study median scores were used to determine whether to classify a subject as androgynous, masculine, feminine, or undifferentiated. The following operational definitions were used to determine psychological gender groups.

Androgynous-- both masculine and feminine scores above the median

Masculine--masculine scores above the median

Feminine--feminine scores above the median

Undifferentiated-- both masculine and feminine scores below the median.

The social desirability items were not used as part of the analysis.

Statistical Analysis

Two-way analysis of variance, one-way analysis of variance, and Pearson correlation coefficients were completed on the data.

RESULTS

The results, reported in Tables 1 through 4, indicated significant differences occurred between freshman and sophomore groups for two context variables--dyadic and small group ($p < .001$). Significant differences also occurred for the trait-CA variables ($p < .001$). An examination of the means revealed that sophomores experience dyadic, small group, and trait-CA significantly more frequently that freshmen. No significant differences occurred between year groups on Form State scores (see Table 5).

Other results indicate that no significant differences occurred between freshmen biological and psychological gender groups and no significant differences occurred between sophomore gender biological and psychological gender groups on context-CA variables, trait-CA variable, and State-CA variable.

The correlation results, reported in Tables 6 and 7, indicate that significant relationship exist between dyadic-CA and small groups-CA, dyadic-CA and public speaking-CA, dyadic-CA and trait-CA. Likewise, significant relationships also exist Small group-CA and public speaking-CA and between small group-CA and trait-CA, as well as public speaking-CA and trait-CA ($p < .001$). The magnitude of the relationships between freshmen students and sophomore students.

DISCUSSION

The primary purpose of this study was to determine the differences between years in college groups, biological gender groups, and psychological gender groups on context-CA variables, trait-CA variable and state-CA variable. An interpretation of the results seems to indicate that sophomore students are significantly more apprehensive on the variables. Data snooping reveals that when members of the sophomore groups were freshmen they were less apprehensive than when they were sophomores. Previous research does not support these findings. In fact, there does not appear to be any logical reasoning for these findings. Perhaps interviewing a sample of the sophomore sample would provide insight into the reasoning for these findings.

Post hoc analyses were completed to determine the percentages of freshmen and sophomores that would be classified as high apprehensives for the dependent variables. When using one standard deviation above the mean to classify subjects into the high apprehensive group for each variable, the results indicate 36 percent of sophomores are classified as high apprehensives on the trait-CA variable, while only 22 percent of freshmen are classified as high apprehensives. Similar results occurred for the state-CA variable (34 percent for sophomores and 21 percent for freshmen).

The results for gender groups reveals that no significant differences occurred between biological gender groups and psychological gender groups. The high within group variances seem to indicate that biological and psychological gender are not good discriminating variables. Theses findings, however, are somewhat surprising as previous research by Andersen, Andersen, and Garrison (1978) concluded that females have been found to show more communication anxiety, than males. Likewise, McDowell, McDowell, Hyerdahl, and Steil (1978) and McDowell (1988) determined that highly feminine subjects of either sex have found to be more apprehensive than either androgynous or masculine subjects.

The correlational results are similar to the results reported by Booth-Butterfield and Gould (1986) and McDowell and McEwan (1992). Trait-CA account for more than 50 percent of the variance, Unlike previous research state-CA accounts for less than 5 percent of the variance.

Overall the results of the this study indicate that a significant percentage of college students frequently experience apprehension.

No previous research has compared freshmen and sophomore in England to discover why apprehension goes up as students move from the freshmen to sophomore. As McDowell and McEwan pointed out future studies might focus on assessing the types of speaking experiences that students have prior to going to college. More importantly, researcher might be done to see what types of speaking experiences do students have during their freshmen year. Perhaps this information might lead to an understanding of the increase to an understanding of why context-CA and trait-CA increases from the freshmen to sophomore year.

Previous research by McDowell and McDowell (1982; 1988) concluded that students with more speaking experiences were less apprehensive and more willing to communicate, that male college students had more public speaking experiences and interpersonal group experiences and were less apprehensive than female college students.

Based on the above studies, research might be completed to determine if college students in England with more communication experiences, based on context, report more or less context-CA than students with limited communication experiences. A longitudinal study, perhaps a panel study, might be completed to index the types of communication experience students have as they more from their freshmen to sophomore years, as well as their junior and senior years.

In addition to utilizing the communication anxiety instruments, Form Trait and Form State, other instruments might be used to help identify personality characteristics that would help to explain

differences among students from different grade levels. It might be that students with different personality characteristics change colleges.

At present the results of this study seem somewhat puzzling. Perhaps focus groups could be used to identify and understand the results of this study. Future research might show that the results of this study are not representative of freshmen and sophomore groups in England.

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Table 1

One Factor ANOVA X_1: Year Y_1: CT-D

Analysis of Variance Table

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	1	1732.915	1732.915	237.022
Within groups	215	1571.905	7.311	p = .0001
Total	216	3304.82		

Model II estimate of between component variance = 1725.604

1

One Factor ANOVA X_1: Year Y_1: CT-D

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Group 1	108	12.944	3.147	.303
Group 2	109	18.596	2.178	.209

2

One Factor ANOVA X_1: Year Y_1: CT-D

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dunnett t:
Group 1 vs. 2	-5.652	.724*	237.022*	15.396

* Significant at 95%

3

Table 2

One Factor ANOVA X_1: Year Y_1: CT-SG

Analysis of Variance Table

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	1	687.682	687.682	70.09
Within groups	215	2109.443	9.811	p = .0001
Total	216	2797.124		

Model II estimate of between component variance = 677.87

1

One Factor ANOVA X_1: Year Y_1: CT-SG

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Group 1	108	15.917	3.838	.369
Group 2	109	19.477	2.222	.213

2

One Factor ANOVA X_1: Year Y_1: CT-SG

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dunnett t:
Group 1 vs. 2	-3.56	.838*	70.09*	8.372

* Significant at 95%

3

Table 3

One Factor ANOVA X_1: Year Y_1: CT-PS

Analysis of Variance Table

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	1	18.277	18.277	1.519
Within groups	215	2586.607	12.031	p = .2191
Total	216	2604.885		

Model II estimate of between component variance = 6.247

1

One Factor ANOVA X_1: Year Y_1: CT-PS

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Group 1	108	18.731	4.189	.403
Group 2	109	19.312	2.563	.245

2

One Factor ANOVA X_1: Year Y_1: CT-PS

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dunnett t:
Group 1 vs. 2	-.58	.928	1.519	1.233

3

Table 4

One Factor ANOVA X_1: Year Y_1: TCT

Analysis of Variance Table

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	1	4960.613	4960.613	79.287
Within groups	215	13451.608	62.566	p = .0001
Total	216	18412.221		

Model II estimate of between component variance = 4898.047

1

One Factor ANOVA X_1: Year Y_1: TCT

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Group 1	108	47.685	10.032	.965
Group 2	109	57.248	4.984	.477

2

One Factor ANOVA X_1: Year Y_1: TCT

Comparison:	Mean Diff.:	Fisher PLSD:	Scheffe F-test:	Dunnett t:
Group 1 vs. 2	-9.563	2.117*	79.287*	8.904

* Significant at 95%

3

Table 5

Correlation matrix

	CT-D	CT-SG	CT-PS	TCT	CST
CT-D	1				
CT-SG	.188	1			
CT-PS	.363	.273	1		
TCT	.581	.703	.749	1	
CST	.126	-.053	.02	.053	1

Table 6

Correlation matrix

	CT-D	CT-SG	CT-PS	TCT	CST
CT-D	1				
CT-SG	.511	1			
CT-PS	.357	.599	1		
TCT	.713	.829	.779	1	
CST	.035	.111	.293	.19	1