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Communication Apprehension among Homeschooled College Freshmen

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Abstract

Homeschooled students—if as socially handicapped as popular stereotypes often suggest—might exhibit greater communication apprehension than peers from private or public high schools. To investigate that question, college freshmen at four different universities completed McCroskey's Personal Report of Communication Apprehension (PRCA-24). Researchers grouped respondents by demographics and conducted both parametric and non-parametric tests. Statistical analyses sustained the null hypothesis that no significant difference existed between the communication apprehension levels of the three groups.

Keywords: Homeschooling, communication apprehension, socialization, college freshmen.

Homeschooling, "a type of education which typically occurs in the home with the child's parent or guardian serving as the primary educator" (Cogan, 2010, p. 19), enjoys acceptance throughout the United States today even though the practice was illegal in all but 20 states as recently as 1980 (Wilhelm & Firmin, 2009). According to the U.S. Department of Education, more than 1.5 million American youth were homeschooled in 2007 (National Center for Education Statistics [NCES], 2008), and Ray (2011) suggested that the number had increased to 1.73 to 2.35 million by spring 2010.

The increased number of students completing secondary education in homeschooling has led to their accommodation in the admissions processes of most colleges and universities.

Homeschoolers are regarded as strong students, fully capable of engaging successfully in the undergraduate curriculum (Jones & Gloeckner, 2004). Indeed, Aasen (2010) cited a 2003 report from the National Home Education Research Institute that almost three fourths of homeschooled students completed a college degree, whereas over half of public high school students either dropped out or went no further than vocational school. Despite decades of research to the contrary, homeschoolers remain stereotyped as not well socialized (Aasen).

The common stereotype characterizes homeschooled students as over-protected, introverted bookworms with underdeveloped social skills. The person matching this image would very likely exhibit a level of *communication apprehension* much higher than the national norm. Horowitz (2002) defined communication apprehension, commonly known as "stage fright," as "anxiety or fear suffered by an individual of either actual or anticipated communication, with a group or a person, that can profoundly affect their oral communication, social skills, and self-esteem" (p. 1).

Communication apprehension is categorized as a social anxiety disorder and, in its extreme form, is considered a *social phobia*, "a persistent fear of one or more situations in which a person is exposed to possible scrutiny by others and fears that he or she may do something or act in a way that will be humiliating or embarrassing" (Horowitz, 2002, p. 8). This description would support the stereotype of homeschoolers as socially inept. Reviews of current literature, however, revealed no research that has attempted to support that assertion as it relates to homeschooled students who have entered college. To assess the validity of this stereotype from a fresh perspective, the present study was designed to measure and compare the degree of communication apprehension of homeschooled college freshmen with that of peers from public and private high schools.

Background Literature

Literature abounds with reports of research into facets of communication apprehension and, more recently, into the impact of homeschooling on children, families, and society. Reports of research into correlations between communication apprehension and homeschooling did not materialize in any database search. This fact led researchers to frame the overarching question guiding this study: *Are students who have been homeschooled more or less reluctant to communicate than those from traditional school backgrounds?* A survey of relevant literature included homeschooling, communication apprehension and its measurement, and communication apprehension in specific populations.

What is the Status of Homeschooling in the 21st Century?

Historians of education commonly note that homeschooling was the preferred mode of educating children in the United States from the colonial period until the advent of compulsory, free public education in the early 20th century (Cogan, 2010; Wilhelm & Firmin, 2009). The practice of educating children at home emerged in the 1960s and 1970s (Collum & Mitchell, 2005) as a counter-culture protest against public school systems. Religious sectarians chose to impart religious values to their children; parents from ethnic and cultural minorities selected homeschooling to avoid the racism of public schools or to forge the ethnic identities of their children (Glanzer, 2008).

Homeschooling defies easy categorization because it arises from diverse cultural

backgrounds and employs diverse methods. McReynolds (2007) noted that homeschooling has "no unified homeschool 'movement,' no standardized curriculum or centralized source of information on academic achievement" (p. 36), but the movement has continued to grow. This growth has been fostered by technology which offers access to online courses, curricula, and support groups. Aurini and Davies (2005) cited another important factor in the spread of homeschooling: "the largest cohort of university-educated parents (especially mothers) in world history" (p. 467).

Despite the growth of homeschooling and the satisfaction of its practitioners, critics have continued to identify concerns. Hill (2000) reported three issues: the potential for (a) academic harm to students, (b) harm to society because students lack skills for citizenship, and (c) harm to the public education system. Other critics cited the overtly religious curriculum chosen by evangelical Christians, the potential for socio-economic segregation among the school-aged population, the allegations of sub-standard teaching, and a worry about inadequate socialization (Romanowski, 2001).

Durkin (as cited by Medlin, 2000) defined socialization as "the process whereby people acquire the rules of behavior and systems of beliefs and attitudes that equip a person to function effectively as a member of a particular society" (pp. 107-108). Literature on socialization of homeschooled students has tended to counter the charge of social ineptitude. Haan and Cruickshank (2006) cited studies which found that homeschooled students participated in more activities outside the home than did their public schooled peers; engaging in athletic leagues, Boy Scouts/Girl Scouts, volunteer work, and church events. Homeschoolers have cited these broader social experiences as contributing to higher self-esteem (Jackson & Allen, 2010) and an ability to resist undesirable peer pressure (Lebeda, 2007). Nevertheless, critics of homeschooling continue to raise concerns about the legitimacy of the endeavor.

What is Communication Apprehension?

The fear and anxiety arising from the prospect of interacting with others is known as *communication apprehension* (McCroskey, 1981). Researchers have estimated that communication apprehension affects 15 to 20% of the population severely enough to impede daily activities (McCroskey, 2009). According to Horowitz (2002), this phenomenon "can disrupt a person's cognitive function, speech motor processes, and physiological states before or during a performance" (pp. 8-9). Communication theorists have studied communication apprehension even before the term was coined in the 1970s and have identified several causes: low intellectual skills, speech skill deficiencies, social introversion, social alienation, communication anxiety, low social self-esteem, and ethnic or cultural divergence from communication norms (McCroskey, 2009).

Horowitz (2002) noted physical indications of the condition such as increased heart rate and faintness as well as psychological symptoms such as dread and fear of catastrophe. Early studies identified two sources of communication apprehension: *state* anxiety, which relates to specific times and situations, and *trait* anxiety, which describes an individual's state of being in any given situation (Witt, et al., 2006).

Measuring Communication Apprehension

James C. McCroskey, a leader in the study of communication apprehension, developed survey instruments that have become standard tools for research in the field. McCroskey, Beatty, Kearney, & Plax (1985) identified four contexts most relevant to oral communication apprehension: one-on-one conversation; working in a small group; participating in a large meeting; and addressing an audience.

Relevant to this study is McCroskey's Personal Report of Communication Apprehension, or PRCA-24, a 24-question self-reporting survey with an internal reliability of .94 (Butler, Pryor, & Marti, 2004). PRCA-24 results describe ranges of overall communication apprehension as well as situational apprehension in the four noted rhetorical contexts. For each context, the survey includes three positively-worded statements and three negatively-worded statements chosen to diminish response bias (McCroskey, 1981). Using a Likert-type 5-point scale, respondents indicate whether they *strongly agree*, *agree*, *neither agree nor disagree*, *disagree*, or *strongly disagree* with each statement.

McCroskey developed a scoring formula for the PRCA-24 that involves either adding or subtracting the value of each response within a given six-statement set from a base score of 18. The result of this computation is the respondent's communication apprehension sub-score for that particular context. Adding the sub-scores of all four contexts provides the respondent's overall communication apprehension score. Based on this formula, sub-scores can range from 6 to 30; overall communication apprehension scores, then, can range from 24 to 120. McCroskey also identified ranges of PRCA-24 scores which indicate low (<51), medium (51-80), and high (>80) levels of communication apprehension based on the means and standard deviations of scores from over 40,000 research participants. McCroskey's scoring levels figured prominently in answering the first five research questions addressed by this study.

McCroskey's work represented a departure from earlier instruments, which focused exclusively on public speaking. Although the PRCA-24 measures communication apprehension in a variety of rhetorical situations, scores from the instrument do not indicate whether *state anxiety* or *trait anxiety* is the source of apprehension.

The PRCA-24 appears in the literature as the predominant research tool for studies of communication apprehension. The survey has been used to investigate the phenomenon among first-generation community college students (Francis & Miller, 2008), at-risk university students (Lippert, Titsworth, & Hunt, 2005), honors students (Butler, Pryor, & Marti, 2004), accounting students (Borzi & Mills, 2001), and others. Each of these studies provided useful background for the present research.

Methods

The objective of this study was to assess the levels of communication apprehension identified by college freshmen from three different secondary education experiences: homeschooling, public high schools, and private high schools. For this quantitative study, the researchers reviewed current literature on homeschooling and communication apprehension and utilized the method of survey research to gather data on students' perceptions. The researchers chose McCroskey's PRCA-24 because of its proven validity and excellent reputation, and added

basic demographic questions to complete the instrument.

Research questions focused on the levels of communication apprehension college freshmen experienced (low, medium, or high), the similarities and differences between respondent groups, and the statistically significant differences, if any, between groups. With no published studies available on the relationship of homeschooling to communication apprehension, the researchers formulated a null hypothesis for the latter question. This hypothesis, tested at the $p<.05$ level of significance, stated that no statistically significant difference exists in communication apprehension levels reported by college freshmen, regardless of high school background.

To keep extraneous variables to a minimum, the researchers sought a homogenous research sample. The lead researcher taught at a Christian university enrolling a fair number of homeschooled students and recommended that the sample be drawn from member institutions of the Council for Christian Colleges and Universities (CCCU). Researchers invited fifteen private, Christian, 4-year, degree-granting institutions to assist in the study, and four participated. On each campus, freshman English instructors administered the surveys in their classes and returned 612 completed surveys, 404 of which met the research criterion of being completed by college freshmen between the ages of 18 and 22. Respondents included 30 homeschooled students, 62 private high school graduates, and 312 public high school graduates.

Survey data were entered into an Excel spreadsheet programmed to calculate scores as data were entered and then imported into and analyzed with Statistical Program for the Social Sciences (SPSS) v. 20 computer software. The results were compiled and reported from the perspective of the respondents on their respective levels of communication apprehension. Researchers took two measures of the data: the first included all 404 valid survey responses, but the second comprised 30 students each from the public school and private school groups who had demographic identifiers matching those of the homeschooled group.

To answer the final research question and to test the hypothesis, the researchers used SPSS to conduct a series of parametric and non-parametric measurements. Using "school type" as the independent variable and "PRCA-24 scores" (both overall and context-specific) as dependent variables, the researchers completed 20 different statistical tests on the data. Half of the tests were analyses of variance (ANOVAs) and the other half were Kruskal-Wallis H tests, which were the non-parametric equivalents of the ANOVAs. To ensure that any notable differences between the groups would be attributable to school type rather than unknown variables present in the larger groups, the researchers duplicated both sets of tests using equal-sized groups with closely-matched demographic identifiers.

Findings

Questions about the validity of the homeschool stereotype inspired this study and led the researchers to connect two areas of inquiry—homeschooling and communication apprehension. The study was guided by six questions: five focused on levels of communication apprehension reported by college freshmen from different secondary education experiences. The sixth question was formulated as a null hypothesis and data were analyzed through a series of statistical tests.

The first three questions related to the level of communication apprehension experienced

by the three groups of students. For ease of comparison, these data are presented in Table 1. A cursory review of the data recorded in Table 1 leads to a preliminary conclusion which would seem to refute the conventional stereotype of homeschooled students. The percentage of homeschooled college freshmen reporting low communication apprehension is notably lower than that reported either by public or private high school graduates. Research questions related to similarities and differences between group pairings required calculating the differences in the percentages of each pair reporting low, medium or high overall communication apprehension to determine a *difference factor* for each pairing. The researchers made calculations for both the total sample and the equal-sized groups. In each case, the homeschooled graduates and the public school graduates showed the greatest similarity. The two groups reporting the least similarity in communication apprehension levels were the homeschooled and private school graduates.

Table 1

Percentages of College Freshmen Reporting Low, Medium, and High Levels of Communication Apprehension

	n	Low	Medium	High
Homeschool Graduates	30	33.3%	56.7%	10.0%
Public School Graduates	312	28.5%	54.2%	17.3%
Equal-sized group	30	30.0%	60.0%	10.0%
Private School Graduates	62	22.6%	64.5%	12.9%
Equal-sized group	30	23.3%	63.3%	13.3%

Note. Identification of low, medium, or high communication apprehension is based on PRCA-24 scoring ranges determined by McCroskey (1981).

What about measures of communication apprehension within specific rhetorical situations? Although McCroskey was concerned about the validity of measures based on only six response items, as would be the case with PRCA-24 sub-scores, he determined that any sub-score higher than 18 indicated a degree of anxiety related to that particular context. Table 2 presents percentages of each group reporting context sub-scores of 18 or higher. Again, a review of the data raises questions about the homeschool stereotype. Predictably, the *public speaking* context has the highest numbers for each group, but the homeschooled segment reported the lowest percentage suffering anxiety in this area.

Table 2

Context-Specific Anxiety Reported by College Freshmen

	n	Dyad	Group	Meeting	Public speaking
Homeschool Graduates	30	10.0%	3.3%	30.0%	50.0%
Public School Graduates	312	21.2%	23.1%	34.0%	55.8%
Equal-sized group	30	13.3%	20.0%	33.3%	63.3%
Private School Graduates	62	25.8%	22.6%	37.1%	61.3%
Equal-sized group	30	26.7%	20.0%	40.0%	70.0%

Note. Percentages scoring 18 or higher on PRCA-24 context-specific sub-scores.

The hypothesis and the final research question—asking which group comparisons show statistically significant differences in communication apprehension levels—required statistical testing. Researchers measured the entire list of PRCA-24 scores, using both the entire sample and the equal-sized groups to conduct duplicate sets of statistical tests. Each test—parametric and non-parametric, for the entire sample and for equal-sized groups, for each sub-score and for overall communication apprehension—indicated that the differences between the groups did not meet the $p<.05$ significance threshold established for this study. The results of this study, then, support the null hypothesis: no statistically significant difference exists in communication apprehension levels reported by college freshmen, regardless of high school background. Results of parametric testing supporting this observation appear in Table 3.

Table 3

Analyses of Variance for Differences in Communication Apprehension (*N* = 90)

Communication Context	*df*	*MS*	*F*	*p*
Dyad	2	16.078	.892	.414
Group	2	19.200	1.147	.322
Meeting	2	1.433	.052	.949
Public Speaking	2	39.878	1.315	.274
Overall	2	176.633	.715	.492

Note. In each case, the indicated differences between groups failed to meet the $p<.05$ level of significance. The results did not reflect the need for *post hoc* testing.

Summary and Conclusions

To fill a gap in the existing literature, the researchers measured correlations between homeschooling and communication apprehension and then compared them to related measures reported by students who attended either public or private high schools. Homeschoolers have borne the unfair burden of a stereotype that this study has addressed. The results of this study support the proposition that homeschooled students suffer communication apprehension to no greater or lesser degree than their peers from traditional high school backgrounds.

References

Aasen, S. H. (2010). New followers of an old path—homeschoolers. *Journal for Quality & Participation*, *32*(4), 12-14.

Aurini, J., & Davies, S. (2005, September). Choice without markets: Homeschooling in the context of private education. *British Journal of Sociology of Education, 26*(4), 461-474.

Borzi, M. G., & Mills, T. H. (2001, March). Communication apprehension in upper level accounting students: An assessment of skill development. *Journal of Education for Business*, *76*(4), 193.

Butler, J., Pryor, B., & Marti, S. (2004, July). Communication apprehension and honor students. *North American Journal of Psychology*, *6*(2), 293-296.

Cogan, M. F. (2010, Summer). Exploring academic outcomes of homeschooled students. *Journal of College Admission, 208*, 18-25.

Collom, E., & Mitchell, D. E. (2005, May). Home schooling as a social movement: Identifying the determinants of homeschoolers' perceptions. *Sociological Spectrum, 25*(3), 273-305.

Francis, T. A., & Miller, M. T. (2008, January). Communication apprehension: Levels of first-generation college students at 2-year institutions. *Community College Journal of Research & Practice, 32*(1), 38-55.

Glanzer, P. L. (2008, February). Rethinking the boundaries and burdens of parental authority over education: A response to Rob Reich's case study of homeschooling. *Educational Theory, 58*(1), 1-16.

Haan, P., & Cruickshank, C. (2006, July). Marketing colleges to home-schooled students. *Journal of Marketing for Higher Education, 16*(2), 25-43.

Hill, P. T. (2000, January). Home schooling and the future of public education. *Peabody Journal of Education, 75*(1/2), 20-31.

Horowitz, B. (2002). *Communication apprehension: Origins and management.* Albany, NY: Singular/Thomson Learning.

Jackson, G., & Allan, S. (2010). Fundamental elements in examining a child's right to education: A study of home education research and regulation in Australia. *International Electronic Journal of Elementary Education, 2*(3), 349-364.

Jones, P., & Gloeckner, G. (2004, Spring). First-year college performance: A study of home school graduates and traditional school graduates. *Journal of College Admission, 183,* 17-20.

Lebeda, S. (2007, April). Homeschooling: Depriving children of social development? *Journal of Contemporary Legal Issues, 16*(1), 99-104.

Lippert, L. R., Titsworth, S. B., & Hunt, S. K. (2005, March). The ecology of academic risk: Relationships between communication apprehension, verbal aggression, supportive communication, and students' academic risk status. *Communication Studies, 56*(1), 1-21.

McCroskey, J. C. (1981, April). *Oral communication apprehension: Reconceptualization and a new look at measurement*. Paper presented at the annual meeting of the Central States Speech Association, Chicago, IL. Retrieved from EBSCO*host*: http://www.eric.ed.gov/PDFS/ED199788.pdf

McCroskey J. C. (2009). Communication apprehension: What we have learned in the last four decades. *Human Communication, 12*(2), 179-187. Retrieved from James C. McCroskey's personal website. http://www.jamescmccroskey.com/publications/236.pdf

McCroskey, J. C., Beatty, M. J., Kearney, P., & Plax, T. G. (1985, Summer). The content validity of the PRCA-24 as a measure of communication apprehension across communication contexts. *Communication Quarterly, 33*(3), 165-173.

McReynolds, K. (2007, Summer). Homeschooling. *Encounter, 20*(2), 36-41.

Medlin, R. G. (2000, January). Home schooling and the question of socialization. *Peabody Journal of Education, 75*(1/2), 107-123.

National Center for Education Statistics. (2008, December). 1.5 million homeschooled students in the United States in 2007 (Issue Brief, NCES 2009-030). Retrieved from.ed.gov/PDFS/ED503748.pdf

Ray, B. D. (2011, 11 January). *Research facts on homeschooling*. Retrieved from the National Home Education Research Institute website: http://www.nheri.org/research/research-facts-on-homeschooling.html

Romanowski, M. H. (2001, November). Common arguments about the strengths and limitations of home schooling. *Clearing House, 75*(2), 79.

Wilhelm, G. M., & Firmin, M. W. (2009). Historical and contemporary developments in home school education. *Journal of Research on Christian Education, 18*(3), 303-315.

Witt, P., Brown, K., Roberts, J., Weisel, J., Sawyer, C., & Behnke, R. (2006). Somatic anxiety patterns before, during, and after giving a public speech. *Southern Communication Journal, 71*(1), 87-100.