

# ***ECHO***

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**ECHO:** An international e-journal concerning communication and communication disorders within and among the social, cultural and linguistically diverse populations, with an emphasis on those populations who are underserved.

***ECHO is the Official Journal of the  
National Black Association for Speech-Language and Hearing***



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## *About the Editor*

**Ronald Jones, Ph.D., CCC-A, ECHO Editor**, is a professor in the Department of English and Foreign Languages at Norfolk State University. He is also Coordinator of the Communication Sciences and Disorders program and Director of the University's Speech, Language, Hearing and Literacy Center. Dr. Jones received his Bachelor of Science in Education degree and Master of Arts degrees from Northern Illinois University, DeKalb, IL and his PhD degree from the University of Cincinnati, Cincinnati, OH. He has written and presented extensively in his primary area of scholarly interest: Auditory Rehabilitation service delivery. Dr. Jones served as Chair of the Board for the National Black Association for Speech, Language and Hearing (2006-2008). Dr. Jones was the former managing editor for ECHO. He is also a past editor (of Letters) for the former ASHA magazine. E-mail address: [rjones@nsu.edu](mailto:rjones@nsu.edu).

## *Contributing Editors*

The following individuals served as reviewers or otherwise contributed, editorially, to the journal during 2014. We thank them for their contributions to ECHO (any omissions were certainly unintentional):

Mona Bryant-Shanklin

Ernest K. Jones

Jennifer Malia

Kenneth Pugh

Alma Harold

Carrie Knight

## *About the Journal*

ECHO is a refereed journal that welcomes submissions concerning communication and communication disorders from practitioners, researchers, or scholars that comprise diverse racial and ethnic backgrounds, as well as academic orientations.

ECHO welcomes submissions from professionals or scholars interested in communication breakdown and/or communication disorders in the context of the social, cultural, and linguistic diversity within and among countries around the world. ECHO is especially focused on those populations where diagnostic and intervention services are limited and/or are often provided services which are not culturally appropriate. It is expected that scholars in those areas could include, but not limited to, speech-language pathology, audiology, psychology, linguistics, and sociology.”

Articles can cover to any aspect of child or adult language communication and swallowing, including prevention, screening, assessment, intervention, and environmental modifications. Special issues of ECHO concerning a specific topic may also be suggested by an author or initiated by the editor.

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## *Guidelines to Authors*

Topics accepted for publication in ECHO could include, but is not limited to, the following:

- Communication breakdowns among persons due to culture, age, race, background, education, or social status
- Use of the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) framework to describe communication use and disorders among the world's populations.
- Communication disorders in underserved or marginalized populations around the world
- Service delivery frameworks for countries' minority populations, including those who are minorities for a variety of reasons including race, religion, or primary language spoken.
- Dialectical differences and their effects on communication among populations
- Evidence base practice research with culturally and linguistic diverse populations
- Provision of communication services in low income/resource countries
- Provision of communication services in middle income/resource countries
- Provision of communication services to immigrant and/or refuge populations
- Effects of poverty on communication development and the provision of services
- Education/training issues in serving diverse populations
- Ethical issues in serving diverse populations
- Role of religion in views of communication disability and its effect on service delivery

Submissions may include:

- research papers using quantitative or qualitative methodology
- theoretical discussion papers
- works using disability frameworks or models
- critical clinical literature reviews
- tutorials
- clinical forums
- description of clinical programs
- scientifically conducted program evaluations demonstrating effectiveness of clinical protocols
- case studies
- letters to the editor.

## *Manuscript Submissions*

All manuscripts should be accompanied by a cover letter (e-mail) in which the corresponding author:

- Requests that the manuscript be considered for publication;
- Affirms that the manuscript has not been published previously, including in an electronic form;
- Affirms that the manuscript is not currently submitted elsewhere;
- Affirms that all applicable research adheres to the basic ethical considerations for the protection of human or animal participants in research;
- Notes the presence or absence of a dual commitment;
- Affirms that permission has been obtained to include any copyrighted material in the paper; and
- Supplies his or her business address, phone and fax numbers, and e-mail address.

All manuscripts must be submitted electronically and should follow the style and preparation presented in the Publication Manual of the American Psychological Association (fifth edition, 2001; see Journal for exceptions to APA style) Particular attention should be paid to the citing of references, both in the text and on the reference page. Manuscript submissions and inquiries should be addressed to: [nbaslh@nbaslh.org](mailto:nbaslh@nbaslh.org).

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## *Sponsoring Organization*

National Black Association for Speech-Language and Hearing, 700 McKnight Park Drive, Suite 708, Pittsburgh, PA 15237, 855-727-2836, 888-729-3489 (fax), [nbashl@nbashl.org](mailto:nbaslh@nbashl.org) (email), [www.nbaslh.org](http://www.nbaslh.org) (website)

## *Current Issue*

*INCREASING THE IMPACT OF SCHOLARLY JOURNALS SERVING DIVERSE POPULATIONS AND RESEARCHERS IN COMMUNICATION SCIENCES AND DISORDERS*, Robert Mayo, PhD, University of North Carolina at Greensboro, Greensboro, NC; Ronald C. Jones, PhD, Norfolk State University, Norfolk, VA; Nola T. Radford, PhD, Jackson State University, Jackson, MS; Carolyn M. Mayo, PhD, Salus University, Elkins Park, PA

*STUDENT PERCEPTION OF FACEBOOK IN THE CLASSROOM*, Anna Turner, MA, University of Central Florida, Orlando, FL; Kenyatta O. Rivers, PhD, CCC-SLP, University of Central Florida, Orlando, FL; Anthony Pak Hin Kong, PhD, University of Central Florida, Orlando, FL; Kevin Yee, PhD, University of South Florida, Tampa, FL

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## ***INCREASING THE IMPACT OF SCHOLARLY JOURNALS SERVING DIVERSE POPULATIONS AND RESEARCHERS IN COMMUNICATION SCIENCES AND DISORDERS***

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### **ABSTRACT**

Scholarly publishing today appears to be in an unprecedented state of flux. The emergence of electronic-publishing and open source access on the Internet have prompted a number of highly respected journals to experiment with innovative publishing models. The British Medical Journal, for example, has done away with ‘blinding’ in their peer-review process, and many of the BioMed Central journals provide open access to the complete submission review record. In June 2006, publishers of the journal Nature began experimenting with posting preprints for public comment in parallel with traditional peer reviewed issues, and since 2006, the Public Library of Science has published an open access journal, PLOS ONE, which publishes articles almost immediately with minimal screening to allow for public comment. This article explores some of the latest changes and innovations in scholarly publishing, which, if adopted, might help increase the impact of those scholarly journals that serve the interests of racial, ethnic and culturally diverse populations. *ECHO*, the Journal of the National Black Association for Speech-Language and Hearing, exemplifies an open access journal model that can be used to educate and inform the public—in particular communities of color—about communication and swallowing disorders. Implications for modern “patient-centered” health care in the form of a) improving education through culturally and linguistically appropriate health literacy; b) accessing evidence-based translational research through journal articles and abstracts as presented in *ECHO*; c) promoting the health and well-being of communities of color (and the public in general); and d) building cultural competence among health professionals are discussed.

**KEY WORDS:** Research, Journal impact, Diverse populations, Scholarly publications, Patient-centered treatment approaches, Health literacy, Translational research

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### **INTRODUCTION**

The population demographics of the United States continue to change quickly as a consequence of significant increases in racially, ethnically, and linguistically diverse populations currently residing in this nation and shifts in immigration patterns. This trend is predicted to endure over the next half century. The U.S. is projected to become a majority-minority nation for the first time in 2043, with African Americans, Hispanics/Latinos, Asians/Pacific Islanders, and Native Americans/Eskimos/Aleutians, now 37 percent of the U.S. population, projected to become 57 percent of the population by 2060 (U.S. Census Bureau, 2014). Moreover, members of these populations will speak one or more languages in addition to English. Conservative estimates suggest that one out of every six of these individuals will have a communication disorder (ASHA, 2011) and that greater numbers of culturally and linguistically diverse persons will seek and receive services from speech-language pathologists or audiologists (Coleman, 2009).

Given these current and projected demographic trends, an important question is, how, in the immediate future, will research information on aspects of speech-language-hearing development, incidence and prevalence of communication disorders, effects of communication disorders (functional, social, and economic), assessment methods and treatment outcomes of these diverse populations be disseminated to scholars and practicing clinicians via the scholarly literature so as to maximize the impact of new findings? The purpose of this paper is to explore some of the latest changes and innovations in scholarly publishing, which, if adopted, might help increase the impact of those scholarly

journals that serve the interests of racial, ethnic and culturally diverse populations.

Assessment tools and intervention programs, which represent the clinical heart of the profession of communication sciences and disorders, often see the light of day through the scholarly literature (Mayo & Johnson, 1992). The role that scholarly journals and other academic publications play in the establishment and “sustenance” of scholarly communities can be critical. Schaffner (1994), one of the first scholars to take a serious look at professional publishing and its most recent innovations, states that journals play at least five important roles. According to Schaffner (1994) and later summarized by Solomon (2007) those roles include the following:

1. *Journals build a collective knowledge base.* Journals play a most important role of collecting and archiving knowledge. Those that do this with the caveat or goal of “getting it right” are usually the most notable or “prestigious.”
2. *Journals help to communicate information.* Communicating information sounds eerily similar to disseminating knowledge, but there are distinct differences. Speed, connectivity and interactivity are the most important aspects of this role, which journals can play.
3. *Journals serve to validate the quality of research.* Journals also play a role in maintaining scholarly-community standards in how research and scholarship are conducted. The peer-review process has traditionally served as a “filter” to what is published or disseminated.

4. *Journals provide recognition to leaders of the scholarly community.* Although publishing in a peer-reviewed journal has its reward for scholars and researchers in academia, it can also serve as a vehicle for recognizing the ideas from innovators and others within a scholarly community, particularly, those whose goal is to advocate for change.
5. *Journals build and/or solidify the values of scholarly communities.* Scholarly journals have the means to bind a scholarly community together. Editorials, opinion articles, letters to the editor, etc. are critical components of an effective journal.

Given the aforementioned roles of journals, the scholarly journals of the field of communication sciences and disorders can serve as valuable sources of reference for clinicians seeking to provide assessment and treatment services that are appropriate for diverse populations. Likewise, journals have the potential to unite communities of scholars or professional special interests groups around topics that pertain to diverse populations. In these two ways, serving as sources of reference and uniting communities of scholars, journals can be viewed as having ‘impact.’

## WHY PUBLISH?

Publication is the ultimate objective of research and it validates conclusions by submitting them to the scrutiny of peers, both during pre-publication peer review and after publication (DePass & Chubin, 2009). Publishing also lends to the body of knowledge of a discipline and in the case of professional fields such as speech-language pathology and audiology, published research can provide an evidence base for clinical practitioners who are tasked with delivery of optimal services to clients/patients. DePass and Chubin (2009) state that publications also build a researcher’s reputation as a scholar and advance that person’s career. Often, encouraged by their institutions, departments, faculty colleagues or mentors, new or junior researchers seek to publish their work in high-visibility, high-impact or prestigious journals to increase their chances of securing promotion, tenure or grants. Likewise, senior researchers are often evaluated based on the continuity of their scholarly productivity over time and the significance and impact of their publications.

To be sure, there are rewards associated with publishing one’s research in the most prestigious journals in their profession and we again refer the reader to Schaffner’s (1994) description of the five important roles played by journals discussed earlier in this paper for an explanation of those rewards. However, Darity (2008) noted that acceptance rates are low at these journals and that some journals are more likely to accept articles focusing on issues involving diversity, race and ethnicity than others. Additionally, Darity (2008) stated:

“Researchers who focus obsessively on prestigious journals may improve their chances of being hired or gaining tenure at some institutions if they are successful in getting such “hits,” but they limit their options to move elsewhere if they publish

very few papers by seeking to place papers only in the highest ranked journals.”

As a relevant example, while the number of articles focusing on cultural-linguistic diversity has increased since the 1990s in two of the American Speech-Language-Hearing Association’s (ASHA) major journals, the *American Journal of Speech-Language Pathology* and the *Journal of Speech, Language, and Hearing Research*, the 2006-2008 acceptance rates for all manuscripts submitted to these publications were 49 percent and 45 percent (in the area of Language), respectively (ASHA, 2009; 2009).

Why publish? Perhaps a more important question is, *why conduct research and publish in the area of cultural-linguistic diversity?* We have previously stated that such research is much-needed and long-neglected (Jones, Mayo & Radford, 2014). Furthermore, in her excellent review of multicultural and international research on communication disorders, Qualls (2012) provides seven “core reasons” or rationales for increasing research in culturally and linguistically diverse populations:

1. *The demographic shifts in the United States’ population.* These changes underscore the need for research to guide clinical practice for these persons.
2. *The general lack of information that accurately represents diverse populations.* There is limited information on communication and swallowing behaviors across race-ethnicity, age, gender, skill level, educational level, socioeconomic level and acculturation within and across cultural groups.
3. *There is misinformation in some of the published research.* This misinformation needs to be debunked, corrected or examined from a different perspective.
4. *Researchers interpret the results of their studies from their own view of the world.* Limited exposure to or stereotyped concepts of nonmainstream groups may influence the objectivity of researchers when they interpret their findings leaving them open to biased opinions.
5. *Multicultural research can confirm or disconfirm local and cultural myths about communication and swallowing behaviors in specific groups.* This ‘myth busting’ can provide a platform for developing the relationship between the clinician, client and the family.
6. *Cumulative multicultural research findings can significantly inform evidence-based practice.* It can provide information about client preferences, differences between typical and disordered speech production and ‘best practices’ for assessment and treatment.
7. *Third-party payers require information about treatment efficacy, effectiveness and outcomes.* Because of known disparities in health care, multicultural research is needed to ensure that high-risk populations such as African Americans and Hispanic/Latinos show reasonable progress in therapy for communication and swallowing disorders.



## TYPES OF SCHOLARLY JOURNALS

Scholarly journals are often confused with professional newsletters, trade journals, or popular magazines. Each may be published on a regular schedule (weekly, monthly, quarterly, etc.) and consist of short articles on a variety of topics. Table 1 below helps to differentiate between these different types of publications. Historically, periodicals published by minority professional associations have included the three forms described in Table 1.

**TABLE 1. Distinguishing features among scholarly journals, professional newsletters and popular magazines**

Features	Scholarly Journals	Professional Newsletters	Popular Magazines
Characteristics	<ul style="list-style-type: none"> <li>• Peer-reviewed</li> <li>• Contains original research</li> <li>• Lengthy with in-depth analysis</li> <li>• Uses scholarly/technical language</li> <li>• Author credentials provided</li> <li>• Cites sources in extensive references list</li> </ul>	<ul style="list-style-type: none"> <li>• Sometimes peer-reviewed</li> <li>• Reports on developments &amp; trends within discipline or industry</li> <li>• Varied length articles</li> <li>• Uses some technical language</li> <li>• Author credentials may be provided</li> <li>• Often cites sources</li> </ul>	<ul style="list-style-type: none"> <li>• Not peer-reviewed</li> <li>• Covers current events &amp; pop culture</li> <li>• Varied length articles</li> <li>• Written for general public</li> <li>• Occasionally signed by authors</li> <li>• Rarely cites sources</li> </ul>
Written By	<ul style="list-style-type: none"> <li>• Scholars or researchers in the field who have an expertise in the subject</li> </ul>	<ul style="list-style-type: none"> <li>• Scholars or professionals who have education &amp; experience in the field.</li> </ul>	<ul style="list-style-type: none"> <li>• Journalists</li> <li>• Freelance writers or publication's staff</li> </ul>
Written For	<ul style="list-style-type: none"> <li>• Academic community</li> </ul>	<ul style="list-style-type: none"> <li>• Professional community</li> <li>• General public</li> </ul>	<ul style="list-style-type: none"> <li>• General public</li> </ul>
Published By	<ul style="list-style-type: none"> <li>• Scholarly societies/ association</li> <li>• Academic presses</li> <li>• Universities</li> </ul>	<ul style="list-style-type: none"> <li>• Professional associations</li> <li>• Foundations</li> </ul>	<ul style="list-style-type: none"> <li>• Mostly commercial companies for profit</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>• Tables</li> <li>• Graphs</li> <li>• Formulas</li> <li>• Few advertisements</li> </ul>	<ul style="list-style-type: none"> <li>• Photographs</li> <li>• Graphs</li> <li>• Charts</li> <li>• Tables</li> <li>• Illustrations</li> <li>• Targeted advertising</li> </ul>	<ul style="list-style-type: none"> <li>• Many graphics</li> <li>• Photographs</li> <li>• Tables</li> <li>• Charts</li> <li>• Illustrations</li> <li>• Full-page advertisements</li> </ul>

## SERVING DIVERSE COMMUNITIES

Frank Rhodes, a former president of Cornell University, explained the importance of serving scholarly communities in this way:

“Universities (scholarly communities) came into existence as communities designed to counteract the isolation of the solitary scholar. They reflected the conviction that growth of knowledge was only in part the result of individual insight and of personal discovery.” ... It would be both naïve and unproductive to pine for a vanished, homogeneous community that can never return. (Rather) a new community (has emerged), one based on engagement, openness, and candor, that can (exist) without sacrificing any of the strengths the university now enjoys and without encouraging a superficial uniformity that has been outgrown.” (p. 45, 47).

In our opinion, Dr. Rhodes’ comment speaks directly to the need to embrace new ideas about how scholarly communities should be defined or better yet, redefined. Moreover, his comments are particularly relevant to scholarly communities that focus on the speech, language, and hearing issues of diverse communities.

There is strong anecdotal evidence that suggests that when minority scholars or scholars of any race or ethnicity dedicate their research efforts to addressing issues facing diverse communities they run the risk of not having their manuscripts seriously considered by “mainstream” scholarly journals (Stewart, n.d.). This threat, in part, led to the development of other scholarly journals, published by minority professional organizations, themselves. Such publications include The Journal of the National Black Nurses Association; The Journal of the National Medical Association; the NSBE Magazine of the National Society of Black Engineers; ECHO, the journal of the

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National Black Association for Speech, Language and Hearing and many others. A comparison of the scholarly journals of five culturally diverse professional associations is shown in Table 2. As noted in the description of each journal shown in Table 2, they share the common themes of (1) focusing on ‘diverse’, ‘minority’, ‘multicultural’ or ‘underserved’ populations/communities; (2) disseminating knowledge in a scholarly format about the often unique needs of these populations; and (3) emphasizing that scholarship does not occur in a cultural, social or societal vacuum. Thus, journals such as these and others, seek to serve diverse communities and communities of scholars by providing vehicles for much-needed and long-neglected quality intellectual work.

**TABLE 2. A Comparison of the Scholarly Journals of Five Culturally Diverse Professional Associations.**

Title and Professional Association	Journal Description	Years of Publication	Peer Reviewed?
<p><b>ECHO</b></p> <p>Journal of the National Black Association for Speech-Language and Hearing</p>	<p><b>ECHO</b>: An international e-journal concerning communication and communication disorders within and among the social, cultural and linguistically diverse populations, with an emphasis on those populations who are underserved. <b>ECHO</b> is a refereed journal that welcomes submissions concerning communication and communication disorders from practitioners, researchers, or scholars that comprise diverse racial and ethnic backgrounds, as well as academic orientations. <b>ECHO</b> welcomes submissions from professionals or scholars interested in communication breakdown and/or communication disorders in the context of the social, cultural, and linguistic diversity within and among countries around the world. <b>ECHO</b> is especially focused on those populations where diagnostic and intervention services are limited and/or are often provided services which are not culturally appropriate.</p>	<p>1978-2004 in print format.</p> <p>2005 to Present as an E-journal.</p>	<p>Yes. Blind review process.</p>
<p><i>Journal of the National Medical Association</i></p>	<p>The <i>JNMA</i> has been published monthly since its inception in 1909 with special emphasis placed on the application of medical science to improve health care. This peer reviewed journal is the nation's leading authority on minority health.</p>	<p>1909-Present</p>	<p>Yes</p>
<p><i>Journal of the National Black Nurses Association</i></p>	<p><i>JNBNA</i> has as its purposes: to provide a forum for critical discussion of relevant issues related to and health care in Black communities; (these issues may include discussions of educational, social, economic, and legislative topics); to be a vehicle for the exchange of scholarly works of Black nurses; and to disseminate knowledge about critical practice, research, education, and health care management which affect the Black community.</p>	<p>1997-Present</p>	<p>Yes. Blind review process.</p>
<p><i>Journal of Black Psychology</i></p> <p>Association of Black Psychologists</p>	<p>The <i>JBP</i> presents the most innovative peer-reviewed, empirical, theoretical, and methodological research on the behavior and experiences of Black and other populations from Black or Afrocentric perspectives. The journal offers complete and balanced coverage of the latest advances through original articles and special features such as Research Briefs, Essays, Commentary, and Media Reviews.</p>	<p>1978-Present</p>	<p>Yes. Blind review process.</p>
<p><i>Multicultural Perspectives</i></p> <p>Journal of the National Association of Multicultural Education</p>	<p><i>Multicultural Perspectives (MCP)</i> promotes the philosophy of social justice, equity, and inclusion. It celebrates cultural and ethnic diversity as a national strength that enriches the fabric of society. <i>MCP</i> encourages a range of material from academic to personal perspectives; poetry and art; articles of an academic nature illuminating the discussion of cultural pluralism and inclusion; articles and position papers reflecting a variety of disciplines; and reviews of film, art, and music that address or embody multicultural forms. Its main audience is K-12 educators, social scientists, governmental social service personnel, teacher educators, and those involved in multicultural education.</p>	<p>1993-Present</p>	<p>Yes. Blind review process.</p>

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## PEER-REVIEW: UNDER REVIEW

Peer review is the evaluation of work by one or more people of similar competence to the producer(s) of the work (peers). It constitutes a form of self-regulation by qualified members of a profession within the relevant field. Peer review methods are employed to: (a) maintain standards of quality, (b) improve performance and (c) provide credibility. In academia, peer review is often used to determine an academic paper's suitability for publication. In the case of potential publications, an editor sends advance copies of an author's work to researchers or scholars who are experts in the field (known as "referees" or "reviewers"), nowadays normally by e-mail or through a web-based manuscript processing system. Usually, there are two or three referees for a given article. Most scholarly professional journals use a "blind review" policy wherein the author's name and affiliation are removed from the manuscript so as to not influence the reviewers and to lend objectivity to the process.

These referees each return an evaluation of the work to the editor, noting good points as well as weaknesses or problems along with suggestions for improvement. The editor, usually familiar with the field of the manuscript (although typically not in as much depth as the referees, who are specialists), then evaluates the referees'

comments, offers her or his own opinion of the manuscript, and evaluates the interest or relevance of the work within the context of the scope of the journal and its potential level of interest to the readership, before passing a decision back to the author(s), usually with the referees' comments. Thereafter, the decision to publish the manuscript will usually be dependent on the whether the author(s) responds satisfactorily to the referees' comments. Figure 1 illustrates the traditional editorial/peer-review process.

During this process, the role of the referees is advisory. The editor is typically under no obligation to accept the opinions of the referees, though she or he will most often do so. Furthermore, in scientific publication, the referees do not act as a group, do not communicate with each other, and typically are not aware of each other's identities or evaluations. Once a decision to reject, accept or revise a manuscript is conveyed by the editor to the author(s), the author(s) communicate with the editor their intentions to make the necessary revisions and resubmit the manuscript. In our opinion, it is this process of give and take and constructive criticism that makes scholarly inquiry work. However, the traditional peer-review process just described is not without its detractors.

### Traditional Editorial/Peer-Review Process

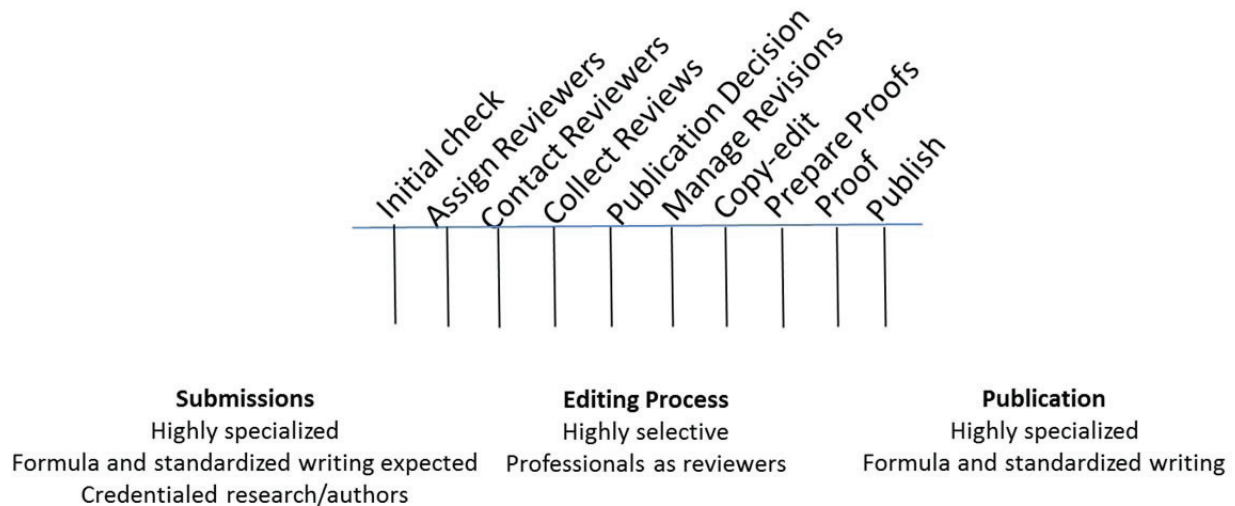


Figure 1. The traditional journal editorial/peer-review process.

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Some in the public have suggested that the peer-review process is inherently flawed because it intentionally excludes the public (Hodgkinson, 2007); It is seen as a process that is conducted by scientists for scientists using scientific jargon. It is also seen as a process that precludes easy access to research findings or scholarly journals and considered the province of academic disciplines and professional organizations. A layperson, for example, interested in an area of research and entering the arena for the first time, can be left totally bewildered. This is particularly true if he or she tries to enter without the professional connections to acquire information, let alone interpret it. Some vulnerable person, recently diagnosed with a life-altering disease, for example, could end up surfing the Internet for answers to find he or she is denied access to the scientific literature because of *members-only* status required, and worse, becomes confused by the information that is available, but posted on pseudo-scientific blogs and websites.

Others criticize the lengthy nature of the journal peer-review process. Schaffner (1994) noted that it usually takes about 18 months for a peer-reviewed article to go from submission to publication and, while this time can be reduced by web-based peer-review and online publication, the peer-review process takes time. The result of this protracted process is that the information disseminated through peer-reviewed journals is often several years old. Additionally, publication errors are likely even with lengthy review and a supposed tightly controlled refereed process (i.e., publications with doctored results discovered years later).

## INCREASING THE IMPACT

Many writers have advocated for various forms of “open” peer-review. To some extent, these calls for change have focused on eliminating the tradition of blinding the reviewers’ identities.

Others have advocated making the full peer-review record public or opening the review process to anyone who wishes to provide comments. There have even been discussions of treating publications as *organic documents* that evolve over time with a series of versions that change to reflect new information and additional commentary (Bloom 2006). Scholarly, open access journals have emerged as an alternative to traditional subscription journals. Open access scholarly journals are available online to the reader without financial, legal, or technical barriers. Solomon (2007) noted that while opening the peer-review process is not contingent on the Internet, the Internet can facilitate even more transparent review processes. Scholarly open access journals are journals which are respected for the extensive research and information they provide about a topic. The research often possesses ‘refereed status’ meaning that it is reviewed by other scientists who are knowledgeable about the theme of the article. Scholarly open access journals cite their sources using references or bibliographies.

An example of an open access journal is *PLOS ONE* (formerly *PLoS ONE*) published by the Public Library of Science. An online journal, *PLOS ONE*, publishes original research from all disciplines within science and medicine. Launched in 2006, *PLOS ONE* uses a “publish first, judge later” methodology (Giles, 2007). The journal is freely available online, offers fast publication times, is reviewed by expert practicing researchers, uses post-publication tools to indicate quality and impact and encourages community-based dialogue on the articles it publishes (*PLOS ONE*, 2014). We view *PLOS ONE* as an example of the newly-emerging innovative editorial/review processes. Figure 2 depicts our suggestion for how an innovative journal editorial/review process might unfold for submitted research manuscripts that focus on diverse populations and related topic areas.

## Innovative Editorial/Review Process

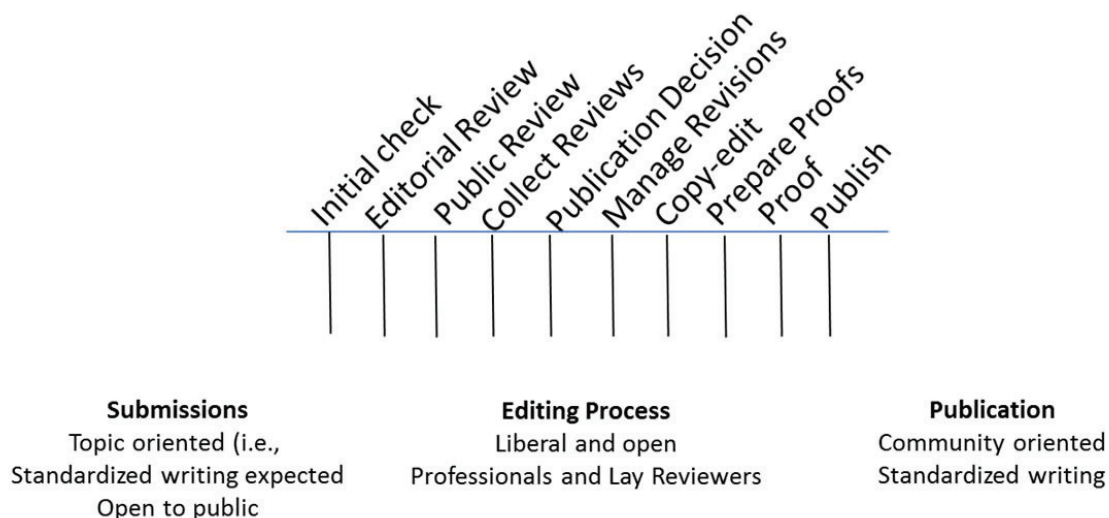


Figure 2. A suggested innovative journal editorial/review process.

## INTRODUCING NOVEL APPROACHES

Below, we offer approaches that we believe will increase the impact of scholarly journals serving diverse populations and researchers in communication sciences and disorders. We recognize that this is not an exhaustive list of suggestions and that newer paradigms will emerge over time.

### • Novel Peer-Review Methods

Allow for open access (OA) to journals and rely on the readers to actively upload comments, peer reviews, etc. to the journal websites, then allow the research results to be made public at the preprint manuscript stage.

### • Faster Article Publication Cycles

The electronic-only format has freed OA journals from the constraints of the journal issue, and many OA journals are opting for publishing articles “on the fly” as they become technically ready. Lately, traditional journals have partly followed this lead by making articles-in-press available to subscribers on their websites. Solomon and Björk (2012) in their survey study of journal authors showed that the speed of publication was the third most important factor affecting authors’ choice of journal, after topical fit and the quality of the journal.

### • More Flexibility in the Layout and Structure of Articles

The electronic format has also opened up new possibilities for including types of presentation formats other than the linear text format, particularly in OA journals, which don’t have the burden of also being published in print. Media enhancements as well as documentation attached to the articles have also been tried.

### • Interactivity for After-Publication Discussions

The electronic format offers opportunities for new kinds of interactive functionality, which was not possible in printed journals. Since OA journals were the first electronic scholarly journals, it was natural that they first started to experiment with reader comments, open peer review, blogs and so on.

### • Easy Reusability of the Digital Content

For open access journals, the assignment of copyright and the licensing agreements for readers and automated tools differ radically from traditional subscription-based journals. During the 1990s, the OA journals were mostly just open and the copyright and license terms were usually not formalized. Currently, most professional OA publishers use some form of public copyright license such as a Creative Commons (CC) license. The CC license is used when an author wants to give people the right to share, use and build upon the work that they have created and its use is also spreading among independent OA journals.

## Other Approaches:

### • Online Publishing of Conference Proceedings

Since 2010, the National Black Association for Speech-Language and Hearing (NBASLH) has published extended abstracts of papers presented at its annual convention in a proceedings issue of its online professional journal, *ECHO*. In this manner, the proceedings issues of *ECHO* have become useful repositories of content on communication development and disorders in

culturally and linguistically diverse populations. Moreover, the authors of many of these papers are encouraged by the editors of *ECHO* to submit their work for peer-review in *ECHO* or in other professional journals.

### • Use of Social Networking Sites for Scientists and Researchers

Social network sites for scholars such as *ResearchGate*, allow sharing of research papers, question and answer sessions about research topics and serve as a venue for scholars to find collaborators for research endeavors. Also, such sites offer researchers statistics on the number of views, downloads and citations of their works over specific periods of time.

### • Connecting Online Journals and Publishing with Continuing Education/Professional Development

Schaffner (1994) observed that unless online journals can meet the basic needs of researchers and readers, they will not be successful. One of those basic needs for clinical practitioners in the field of communication sciences and disorders is that they maintain and update their professional development through obtaining a mandated number of continuing education experiences. Online journals that offer quality content on diverse populations *and* that nimbly merge that content with online professional development opportunities (including management of continuing education units) will be attractive to readers.

## CONCLUSION

This article has presented a synopsis of the current state of information dissemination of scholarly works on health topics that affect multicultural, multilingual populations in the U.S. Specifically, the authors suggest strategies to improve health literacy and patient education in communication sciences and disorders (CSD) among their various constituents who range from fellow CSD professionals and scholars to the general public almost 10% of whom experience a communication disorder at any given point in time).

Changing previously limited-access-based professional journals (the content of which is usually limited to scholars with similar disciplinary backgrounds) into open access journals (where the general public can also download and read scholarly works) increases the broader usefulness and appeal of this scientific literature. Further, providing health literacy with a scientific basis can enhance the public’s awareness and knowledge of evidence-based diagnostic and intervention approaches on communication disorders being experienced by patients and/or their family members.

The Institute of Medicine defines health literacy as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” (National Research Council, 2004). For people from different cultural backgrounds, health literacy is affected by belief systems, communication styles, and their understanding and response to health information. Members of organizations such as the National Black Association for Speech-Language and Hearing and their professional journal, *ECHO*, bring with them a rare combination of content, knowledge and culture that represents the best of the professional and public health literacy worlds.

Additionally, the current state of affairs within the scientific communities calls for all basic and health sciences professional societies to engage in translational research. Translational research refers to transforming research into practice, ensuring that new treatments and research knowledge actually reach the patients or populations for whom they are intended (Woolf, 2008). This form of translational research helps clinicians and patients to change behaviors, and make informed choices, providing patients and care-givers with support tools while strengthening patient-clinician relationships. Translational research also closes the gap and improves the quality, access, reorganization and coordination of systems of patient care.

J.C. Bell (1986) once stated that, “Words spoken without meaning have no tentacles. They float endlessly, bouncing here and there, restless pieces of the spirit; sent out without any mission or specific definition, landing nowhere and serving no purpose . . .” (p. 51). Professional journals such as *ECHO*, when made openly available to people of color and others, seeking to be culturally competent in today’s pluralistic society, can provide meaning and mission! Essentially, these scientifically-driven journals can be used to strengthen the health literacy, translational research applications and ultimately the health and well-being of multicultural, multilingual and diverse constituents whom the journal was historically called to serve.

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# ***ECHO***

## ***STUDENT PERCEPTION OF FACEBOOK IN THE CLASSROOM***

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### **ABSTRACT**

The ubiquity of social networking sites in the lives of college students begs the question of viable educational applications. This mixed methods study examined students' perceptions of the educational usages of Facebook, a social networking site, compared to Blackboard, a learning management system, with four classes at a large university in the United States. Students were asked how they ranked Facebook, compared to Blackboard, on issues such as privacy, convenience, and overall preference for required online discussions. The mixed method results affirm that while social networking could be used in a manner that breaches privacy and preference, some targeted usage of Facebook was seen as superior to Blackboard.

**KEY WORDS:** Facebook; social networking; privacy; convenience

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### **INTRODUCTION**

There has been much debate in the educational community over the increased use of technology in the classroom as the so-called “Digital Natives” and Millennial generation pervade higher education (Prensky, 2001). Universities have embraced online education through course management systems such as Blackboard and WebCT (Rovai, 2007; Sitzmann, Kraiger, Stewart, & Wisher, 2006). Web-based instruction and online discussion have proven effective in facilitating learning and building community (Rovai, 2001, 2007; Sitzmann et al., 2006). The debate continues with the use of Web 2.0 and social networking sites to facilitate online discussion using a platform with which students are more familiar (Maloney, 2007; McLoughlin & Lee, 2007).

The majority of online teenagers in 2006 (55%) reported using social networking sites like MySpace and Facebook (Lenhart, 2007). As those teenagers have now reached college age, social networking use has increased, with 72% of wired young adults ages 18-29 using these sites. Facebook is by far the most popular, attracting 73% of social networking users in this age bracket (Lenhart, 2010). Maloney (2007) advanced that students are willing to invest time and energy into these online communities.

The ubiquitous use of Facebook by college-age individuals does not by itself warrant its use for educational purposes. There are many areas of concern that should be addressed before implementing the use of a non-university discussion platform. Specifically, a thorough investigation is needed of the current and possible educational uses of Facebook. For example, Selwyn (2012) conducted a systematic study of the content of the Facebook pages of 909 undergraduate students, in subject disciplines including sociology, social policy, criminology,

education, psychology and anthropology, in terms of their interactions via Facebook for formal educational concerns of the university and/or the informal needs of students relating to negotiating their university studies. It was found that students’ main “educational” use of Facebook was based around either their sharing of learning experiences and events in school and exchange of logistical or factual information about teaching and assessment requirements. The author concluded that, through informal online interactions, Facebook has become an important platform for students to learn the ideal roles and to shape identities of university students.

While student Facebook use is currently widespread, formal educational uses of Facebook are rare (Green, 2010). Various studies report frequent use of Facebook by students, including checking their profiles multiple times a day (Christofides, Muise, & Desmarais, 2009; Kirschner & Karpinski, 2010; Peluchette & Karl, 2008; Pempek, Yermolayeva, & Calvert, 2009). However, most students do not use it for educational purposes, even informally (Roblyer, McDaniel, Webb, Herman, & Witty, 2010). Selwyn (2009) found that students in the United Kingdom sometimes used Facebook for educationally related activity, but posts of this nature comprised only 4% of their total Facebook communication. Conversations related to course content were practically non-existent. Most posts contained post-hoc critiques of the course, logistical information, moral support, or reflections of oneself as academically incompetent or disengaged. Students are not alone in their use of Facebook. Roblyer et al. (2010) reported that 73% (n = 45) of the faculty in their study (n = 62) used Facebook for personal communication. However, faculty use of social networking in the classroom has been just as infrequent as student educational use (Ajjan & Hartshorne, 2008; Green, 2010).



# ECHO

Recently, a systematic review on the educational value of Facebook as a learning environment was reported by Manca and Ranierit (2013). Specifically, the authors reviewed studies that focused on using Facebook as a technology-enhanced learning environment and to explore how well the pedagogical potential of Facebook could actually translate into practice. Out of the 34 studies published in peer-reviewed academic journals between 2008 and 2012, over half of them used the 'private group' feature to allow students to share resources, post comments, write on group walls, and conduct discussions. These groups were set as private for privacy and security reasons. Five common educational uses were identified, including (1) to support student discussion and allow peer learning through mutual understanding and critical thinking exercises, (2) to develop pieces of multimedia content, (3) to allow students to share educational resources (4) to expand the curriculum and to expose students to external resources, and (5) to enhance students' self-managed learning. The results suggested that while some fundamental pedagogical affordances of Facebook could be implemented, many obstacles still existed which limited a full adoption of Facebook as the most effective learning environment. One of the major obstacles included students, as well as teachers' expectation and comfort level of using informal tools, such as Facebook, to act as a unique learning (and teaching) tool.

Based on the perceptions of 161 students, Irwin, Ball, Desbrow, and Leveritt (2012) evaluated how Facebook could be used as a platform to facilitate learning activities among university students. Specifically, four individual Facebook pages were developed for four courses to engage students' interaction after classes and to provide additional information relevant to the courses. At the beginning of the semester, 78.0% of students indicated that with increased interactions with the instructor as well as notifications for course information, they anticipated that the Facebook pages would facilitate their learning. Towards the end of these courses, it was reported that 81.9% of students engaged with the course Facebook page at some stages and about half of them (51%) felt that the page served as an effective learning tool. The authors concluded that further research was needed to examine how Facebook would promote collaborative and cooperative learning and, therefore, enhance student learning outcomes.

In regards to privacy, students often feel uncomfortable when instructors invade their space and do not keep the appropriate distance from their personal lives. This translates to online personal spaces as well (Boon & Sinclair, 2009). Since Facebook is a social networking site that consists of members' personal profiles, two concerns arise regarding students' personal space: self-disclosure and privacy. Students report disclosing a significant amount of personal information on Facebook such as their email address, hometown and relationship status, and less frequently, phone number and home address (Christofides et al., 2009). Students are also likely to post pictures of themselves and friends. In fact, students are more likely to disclose information on Facebook than they are to disclose information in general. Motivation for this disclosure includes need for popularity and

self-expression or self-presentation (Christofides et al., 2009; Pempek et al., 2009). Students' presentation of themselves online does not correspond with their professional image; most report concern with employers or strangers having access to such information (Peluchette & Karl, 2008).

One way for students to circumvent these concerns is to customize their privacy settings, but not all students take advantage of this option. The majority of teens with a social networking profile report having set some sort of limited access to their profile (Lenhart & Madden, 2007). Most students believe that it is at least somewhat important to control who sees the information on their Facebook profile, whether they actually take steps to do so or not (Christofides et al., 2009). Pempek et al. (2009) reported that most students actually provide open access to the personal information located on their profiles. Students who leave their privacy controls on the default setting, or who fail to secure their Facebook profile with customized settings, are leaving themselves more exposed, which is a sensitive subject concerning the use of Facebook for educational purposes. While much of the research indicates that Facebook is a peer-to-peer communication tool and using it for instructional purposes would cross some student/instructor boundaries, there is evidence amongst some studies supporting its educational use.

Instructor self-disclosure is not the only possible incentive for using Facebook. Facebook's interface allows a member to catch up on communication with a network from a single page (Downes, 2007). Facebook prioritizes the social community and puts less emphasis on the actual content. This contradicts traditional classroom management systems. However, research suggests that classroom community supports students in various ways, such as providing increased information flow, collaboration and learning satisfaction (Rovai, Wighting, & Lucking, 2004). Critics of the use of Facebook in education contend that content that does pervade Facebook tends to be empty and meaningless rather than thought-provoking (Boon & Sinclair, 2009). With proper guidance, however, features such as word-limits and the "like" function could be used to create community, promote communication among classmates, and encourage students to summarize their thoughts. Kabilan, Ahmad, and Abidin (2010) addressed this issue in a study that used Facebook as an online environment to promote learning the English language. Several students involved in the study reported that Facebook was not a suitable environment to learn English. One even stressed that learning English must be done through academic reading. Despite the small percentage of students who felt Facebook was not a suitable environment for academic pursuits, most of the students agreed that they learned to communicate better.

In addition to the aforementioned benefits, Facebook can also serve to relay logistics. Selwyn (2009) discovered that students often failed to obtain logistical information from official channels associated with their courses, and resorted to obtaining this information, which was often incorrect, from unofficial sources, such as Facebook. The official sources were not always compatible with the students' modes for gaining information.

Although Selwyn suggested this backstage space be left alone by educators, the authors believe a course presence on Facebook could remedy this dilemma, with the exception that it is not too intrusive on students' personal lives. In the past, some students have responded positively to having a "hub" for their courses, where they have constant access to course information via an online outlet other than Blackboard (Arnold & Paulus, 2010, p. 192). Students also prefer an online environment for quick exchange of knowledge with other participants (Paechter & Maier, 2010). Furthermore, many students log onto Facebook more than once a day and feel that this has a negative effect on their studies (Pempek et al., 2009). If Facebook is introduced as a classroom tool, students could find it more convenient to have assignments via this social networking site as it is clear they are not giving up Facebook to concentrate on their studies. In order to integrate social networking with course assignments, steps should be taken to ensure that an air of professionalism is maintained and students' privacy is protected.

Given the mixed findings on the potential strength and limitations of the academic application of Facebook, the purpose of this study was to explore students' perceptions of the use of Facebook in courses for educational purposes. To provide further context, students were also asked to evaluate Facebook as a viable alternative to the standard university learning management software (Blackboard). The following research questions were investigated:

1. Do students perceive the use of Facebook in course instruction as an invasion of their privacy?
2. Do students perceive that Facebook is more convenient than the university's course management system?
3. Do students prefer Facebook or the university's course management system for class correspondence?

## METHODS

### Participants

Participants were a convenience sample of 108 students enrolled in undergraduate and graduate courses in a large university. The sample consisted of 24 (22.2%) students between the ages of 18-20, 68 (63.0%) students between the ages of 21-25, and 16 (14.8%) students over the age of 25. There were 102 (94.4%) females and 6 (5.6%) males. The sample included 85 (78.7%) Caucasian, 3 (2.8%) African-American, 9 (8.3%) Latino/a, and 5 (4.6%) Asian students. Another 5 (4.6%) reported being of another race or ethnicity.

The students included 6 (5.6%) freshmen, 9 (8.3%) sophomores, 11 (10.2%) juniors, 32 (29.6%) seniors, and 49 (45.4%) graduate students. Of the 108 total participants, 13 (12.0%) chose to create a new Facebook account to use in their course, 94 (87.0%) chose to use their personal account for the course, and 1 (0.9%) did not indicate which option was chosen. A complete demographic profile of the sample can be seen in Table 1.

**Table 1 Profile of Participants**

Variable	Value	Frequency	Percentage
Gender	Male	6	5.6
	Female	102	94.4
Age	18-20	24	22.2
	21-25	68	63.0
	26-30	8	7.4
	31-35	3	2.8
	>35	5	4.6
Race/ethnicity	Caucasian	85	78.7
	African-American	3	2.8
	Latino/a	9	8.3
	Asian/Pacific Islander	5	4.6
	Other	5	4.6
Class standing	Freshman	6	5.6
	Sophomore	9	8.4
	Junior	11	10.3
	Senior	32	29.9
	Graduate student	49	45.8
Facebook account used	Personal FB account	94	87.9
	Second FB account	13	12.1

## Procedures

Permission to conduct this study was obtained from the university's Institutional Review Board prior to its implementation. Participants were recruited from four classes: an undergraduate interdisciplinary honors class, an upper-level undergraduate speech pathology class, and two graduate speech pathology classes. The undergraduate interdisciplinary honors course had 20 students, the undergraduate speech-language pathology course had 32 students, and the speech-language graduate courses contained 23 and 33 students. The graduate-level courses were taught by the same instructor, while the undergraduate courses were taught by different instructors. The mode of instruction for all classes was face-to-face, but all three professors added an online component through the university's course management system, Blackboard Vista, or through Facebook. The use of Blackboard Vista was limited to holding course documents, the use of discussion boards, and communication tools such as announcements and emails.

**Instructional Use of Facebook.** There are several elements of Facebook used in this study that should be discussed. First, there were two ways that the professors in this study connected with students. The first was through a friendship. In this scenario, the student sent the professor a request to become friends via Facebook, and the professor accepted the request. The student could then see the professors' profile, which included posts, pictures, and comments from other friends. The professor could also see the students' profiles. Courses that used this method to connect with students were referred to as open courses in this study because personal profiles and their content were open to the professor, unless students took advantage of specialized privacy settings.

The second way that professors in this study connected with students is through the creation of a *Facebook group*. The professor created a special Facebook group for the course, and students had to request to join it. In this scenario, professors and students did not have access to each other's profile, and students only interacted within the Facebook group. This method was referred to as a *closed course* because personal content was closed to the professor and other students.

In the closed courses, the professors facilitated discussion in one of two ways: (1) the professor created a discussion tab, where a topic was posted and students commented on the topic (it should be noted that this feature is no longer available in Facebook); or (2) the professor used the *wall* to facilitate discussion. It should be noted that the wall is the main page of the Facebook group where all members have the ability to post comments and reply to others' posts.

The last element of Facebook that should be touched upon is the *info box*. The info box is located in the upper left-hand side of the screen for Facebook groups. The box is usually used to provide a description of the group. If the professor chose to use the wall for discussion, though, the info box provided a convenient area to post the weekly discussion topic or question.

The goal for the implementation of Facebook was to continue classroom interaction between physical meeting times via an

online environment. Arnold and Paulus (2010) used a similar social networking site to encourage student to student interactions, but some of the online interactions occurred synchronously during class time while students were in the same room. Many of the students reported that this "seemed pointless" or felt "artificial" (p. 193). Our goal was not to replace in-class interaction with an online environment, but to use the online environment to extend class time and the possibility of student to student interactions. Paechter and Maier (2010) report that students prefer online components for activities such as applying one's knowledge, which we hope to achieve outside of physical class time using Facebook.

The use of Facebook was implemented differently by all three professors, so students were in one of three groups depending on the class in which they were enrolled.

**Group 1.** The upper-level undergraduate speech pathology course was a closed course. The instructor created a Facebook group account for the class that was only open to students enrolled in the course. Participants were required to have a Facebook page, and asked not to friend the instructor directly. For those participants who were concerned about privacy, they were permitted to create a separate Facebook account. The instructor posted YouTube videos and other content related to the course in the discussion tab of the Facebook group. Each student was required to (1) post a response to what that student observed in the video, using no less than 21 words or three lines, and (2) respond to at least two classmates' posts. The professor created a Facebook account that was used only for professional purposes.

**Group 2.** The instructor of the interdisciplinary honors course also created a closed course that was only open to students enrolled in the course. The instructor posted a weekly question in the info box, and students were required to post their response on the wall. They were not required to reply to any of their classmates' posts. The instructor used his personal Facebook account, but enhanced the privacy settings and changed the profile picture to be more professional. The closed-group format allowed the students to keep their profiles private from the instructor and other students, but still allowed them to interact within the group. This automatically assured students that the professor would not have access to their profile.

**Group 3.** Both of the graduate-level speech pathology courses were open courses. Facebook use was optional and accomplished through a direct friendship with the professor. Facebook was mainly used for sharing information such as videos, websites, and current events related to the course content. No assignments were announced through Facebook. The instructor used his professional Facebook account that was created specifically for teaching. Since the students had to have a direct friend request with the professor in order to participate, the use of Facebook in these courses gave the professor access to students' profiles, unless the students manually changed their privacy settings. Although the professor did not look at student profiles, the students had no way of knowing this. A summary of each group type can be seen in Table 2.

**Table 2 Summary of Course Facebook Use.**

Closed Courses	Open Courses
<p><b>Group 1:</b>            (n = 32 participants)            Undergraduate Speech Pathology            FB required            Group membership required            No friendship            Mandatory assignments            Used the discussion tab            Required to reply to posts</p>	<p><b>Group 3:</b>            (n = 56 participants)            Graduate Speech Pathology            FB optional            Friendship required to participate            Used for sharing information            No assignments</p>
<p><b>Group 2:</b>            (n = 20 participants)            Undergraduate Honors            FB required            Group membership required            No friendship            Mandatory assignments            Used the wall and info box            Not required to reply to posts</p>	

**Survey.** At the end of the semester, the participants were asked to fill out a 19-question survey concerning their use of Facebook for class purposes (see Appendix). Thirteen questions were used for the purpose of this study, including demographic and open-ended questions. Questions regarding future use of the class Facebook were not used for this study. The survey was administered in class, with instructions given orally as well as in writing. The questionnaire was constructed by the three professors teaching the courses being studied, and included both closed-ended and open-ended responses.

**Quantitative responses.** The first five questions were demographic, asking the participants to provide their age, gender, class standing, major, and race/ethnicity. The participants self-identified the class in which they were enrolled. The remainder of the questionnaire focused on students use of Facebook prior to the start of class, their use of Facebook during class, their feelings about using Facebook for class, and if they plan to use Facebook after the end of the semester. Three questions in particular were vital to investigating our research questions.

With regards to the first research question, which explored participants' feelings towards the use of Facebook and their privacy, participants were asked to respond to the statement, "I felt like the use of Facebook in class was an invasion of my privacy." A five-point Likert scale was used for the responses: (1) Strongly Agree, (2) Agree, (3) Neither Agree nor Disagree, (4) Disagree, and (5) Strongly Disagree.

The second research question explored students' preference for Facebook versus the university's course management system (known to the students as Webcourses) based on convenience. Participants were asked, "In terms of convenience, which do you prefer?" Students chose one of five categorical responses: (1) I prefer Facebook, (2) I prefer Webcourses, (3) I like Facebook and Webcourses equally, (4) I dislike both Facebook and Webcourses, and (5) No opinion.

The third research question explored whether students generally prefer to use Facebook or the university's course management system for class discussion. Participants were asked, "When using Discussion Boards in Facebook and Webcourses, which do you prefer?" Again, they were required to respond using one of five categorical responses: (1) I prefer Facebook; (2) I prefer Webcourses Discussion Boards; (3) I like Facebook and Webcourses Discussion Boards equally; (4) I dislike both Facebook and Webcourses Discussion Boards, and (5) No opinion.

In addition to those three questions, participants were also asked if they created a second Facebook account for use in their course. This helped put the aforementioned three questions into context.

Tests of reliability and validity were not conducted as the questions used were part of a larger survey and no scales were used. According to Huck (2008), tests of internal consistency and construct validity rely on correlations among questions;

therefore, to compare the questions in this analysis would violate the assumptions of the statistical procedures. For the two open-ended questions at the end of the survey (i.e., “Which elements of Facebook (that you used for class) did you like?” and “Which elements of Facebook (that you used for class) did you dislike?”), point-to-point inter-judge reliability was established between the first and second authors.

**Qualitative Responses.** Two open-ended response questions were placed at the end of the survey to provide richer data, put quantitative responses in context, and provide insight for future research. These questions were purposefully open-ended to ensure that participants were not required to talk about privacy or convenience unless they felt that these issues were most important.

## Analyses

Nonparametric tests were used to analyze the data because of the nature of the data. Kendall’s tau-b coefficient was used to identify ordinal-level correlations, because it is a more accurate test for tied ranks than Spearman’s rho (Huck, 2008). Chi-square tests were used for bivariate analysis, comparing ordinal- and nominal-level data or two nominal-level variables.

## RESULTS

### Quantitative Analysis

The first research question explored concerned the participants’ feelings about whether using Facebook for educational purposes was an invasion of their privacy. Nonparametric correlations were used to test whether age, class standing, or prior Facebook use correlated with students’ opinions on privacy. Age and privacy were positively correlated, indicating that older students feel using Facebook for class is an invasion of their privacy ( $\tau_b = .239, p = .004$ ). Class standing and privacy were also positively correlated, indicating that graduate students and upper-level undergraduates felt that using Facebook is an invasion of their privacy ( $\tau_b = .460, p = .000$ ). There was an inverse correlation between prior use of Facebook and invasion of privacy, indicating that those who regularly use Facebook are less likely to feel using it for educational purposes is an invasion of their privacy ( $\tau_b = -.221, p = .009$ ). Gender and race were not significantly related to students’ feelings on privacy.

Participants were required to indicate whether they created a separate Facebook account for the course requirements. No significant difference in students’ perception of privacy based on whether they created a new account was found.

To further explore whether a direct friendship or use of a closed group affected students’ feelings on privacy, participants’ perceptions were compared in each class. In Group 3, where a direct friendship was required, a large percentage of the participants felt that using Facebook was an invasion of their privacy, 39.4% ( $n=13$ ) and 54.6% ( $n=12$ ), compared to a small percentage of participants who felt it was not, 24.2% ( $n=8$ ) and 13.6% ( $n=3$ ). In Groups 1 and 2, where Facebook was required

and a closed group was used, the majority of the participants felt that using Facebook was not an invasion of their privacy, 56.3% ( $n=18$ ) in Group 1 and 90% ( $n=18$ ) in Group 2. This was compared with a moderate to small percentage who felt it was, 28.1% ( $n=9$ ) in Group 1 and 0% ( $n=0$ ) in Group 2 ( $\chi^2(12) = 54.057, p < .001$ ).

The second research question focused on the participants’ opinions about how convenient it was for them to use Facebook for their courses. The majority of the undergraduate participants preferred the convenience of Facebook to the university’s course management system: 66.7% ( $n=4$ ) of freshmen, 77.8% ( $n=7$ ) of sophomores, 63.6% ( $n=7$ ) of juniors and 53.1% ( $n=17$ ) of seniors. Graduate participants preferred the university’s system. Only 24.5% ( $n=12$ ) of graduate participants preferred the convenience of Facebook ( $\chi^2(12) = 22.085, p < .05$ ). Age, gender, race, and whether the participant created a new account were not significantly related to the participants’ opinions on convenience.

Results concerning convenience in the open group courses versus the closed group courses were mixed. In one of the Group 3 courses, only 8.7% ( $n=2$ ) of the participants preferred the convenience of Facebook, compared to 51.5% ( $n=17$ ) in the other. In the closed group courses, 37.5% ( $n=12$ ) of the participants in Group 1 preferred the convenience of Facebook compared to 85% ( $n=17$ ) of the participants in Group 2 ( $\chi^2(9) = 29.304, p = .001$ ).

To further investigate convenience, participants’ feelings on privacy were investigated with regards to this variable. Of the participants who preferred Facebook for convenience, 66.7% ( $n=32$ ) felt that Facebook was not an invasion of their privacy. In contrast, of those who preferred the university’s system, 53.5% ( $n=23$ ) felt like Facebook was an invasion of their privacy ( $\chi^2(12) = 40.427, p < .001$ ).

The third research question focused on the participants’ general preference of discussion boards in terms of the platform used. In the age bracket of 18-20, 41.7% ( $n=10$ ) preferred Facebook and 25% ( $n=6$ ) preferred the university’s system, with the remainder either liking or disliking them equally. Participants in the 21-25 age bracket preferred the university’s system ( $\chi^2(16) = 41.733, p < .001$ ). There were not enough students older than 25 to present a thoughtful analysis, but at least one student from each age bracket preferred Facebook. Class standing was also related to discussion board preference. Eighty-three percent ( $n=5$ ) of freshmen preferred Facebook, none preferred the university’s system, and the remainder either liked or disliked the platforms equally. A majority of sophomores also preferred Facebook at 55.6% ( $n=5$ ). Juniors were split, with 27.3% ( $n=3$ ) preferring Facebook and 36.4% ( $n=4$ ) preferring the university’s system. The majority of seniors preferred the university’s system at 53.1% ( $n=17$ ). An overwhelming majority of graduate students preferred the university’s system at 75% ( $n=36$ ) ( $\chi^2(16) = 42.977, p < .001$ ). Race was also related to discussion board

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preference, with the majority of African-Americans and Asian-Americans preferring Facebook, 66.7% (n=2) and 80% (n=4), respectively. Caucasians preferred the university's system at 58.3% (n=49) ( $\chi^2(16) = 32.928, p < .01$ ). Although these results are significant, they should be interpreted with caution, considering that the sample's diversity was limited. No significant differences were found between females and males.

The participants' preferences of discussion board usage with regards to whether they experienced the direct friendship or closed group was also analyzed. Participants in Group 3 preferred the university's system, 81.8% (n=18) and 57.6% (n=19) while participants in the closed group courses showed mixed results. In Group 1, 59.4% (n=19) of the participants preferred the university's system, but 60.0% (n=12) of them in Group 2 preferred Facebook.

Table 3 shows the comparison of student perceptions based on the type of course in which they were enrolled. It also shows the frequencies and percentages of participants who (1) agreed that Facebook is an invasion of privacy, (2) agreed that Facebook is more convenient than Blackboard and (3) preferred Facebook discussions over Blackboard.

**Table 3**

Frequencies, percentages, and chi-square comparisons of student perceptions of Facebook.

Student perceptions of Facebook	Agreement in closed courses (Groups 1 & 2)	Agreement in open courses (Group 3)	$\chi^2(df)$	Sig.
Is an invasion of privacy	9 (17.3%)	25 (45.5%)	26.30 (2)	.000
Is more convenient than BlackBoard	29 (55.8%)	19 (33.9%)	5.22 (2)	<i>ns</i> <sup>a</sup>
Prefer Facebook to BlackBoard	18 (34.6%)	7 (12.5%)	9.16 (2)	.010

<sup>a</sup>There are significant differences among students' perceptions of convenience when all four classes are tested separately. (See analysis and results.)

## Qualitative Analysis

The responses were collected from the two open-ended questions on student likes and dislikes and entered into Nvivo 9.0 for analysis. An initial, or open, coding strategy (Berg, 2009; Lofland, Snow, Anderson, & Lofland, 2006) was implemented. During this stage of the analysis, comments pertinent to the three research questions were organized into one or more of the three categories: (1) privacy, (2) convenience, and (3) discussion boards.

After the initial stage of analysis, axial, or focused, coding was implemented within the three categories where an inductive strategy to look for relationships within the data was used (Berg, 2009; Lofland, Snow, Anderson, & Lofland, 2006). Several themes emerged within each of the three elements, which assisted in putting the qualitative data into a clearer context. Finally, the raw data were re-examined, and the same analysis strategy for each group was used. The participants' comments were first coded by group, allowing relationships to emerge in each category. A summary of student responses can be seen in Table 4.

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**Table 4 Summary of Student Responses.**

	All students	Group 1	Group 2	Group 3
Privacy	<ul style="list-style-type: none"> <li>• Comfort levels vary</li> <li>• Facebook is a personal site for social purposes</li> <li>• Facebook is an inappropriate tool for academic use</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed feelings among students, but most disagreed that Facebook was an invasion of privacy</li> <li>• Some created secondary accounts</li> </ul>	<ul style="list-style-type: none"> <li>• Most used their personal account (one comment on privacy)</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed results; most reported neutrality about privacy</li> <li>• Many thought a direct friendship is an invasion of privacy</li> <li>• Improper mix of personal and professional</li> <li>• Some elected not to participate</li> </ul>
Convenience	<ul style="list-style-type: none"> <li>• Facebook is easier to access than the university platform</li> <li>• Assignments on Facebook take less time to complete</li> <li>• Students are more familiar with Facebook</li> </ul>	<ul style="list-style-type: none"> <li>• Students equally preferred Facebook and Webcourses</li> <li>• Easy to access</li> <li>• Very convenient</li> <li>• Less convenient for students who made secondary profiles</li> </ul>	<ul style="list-style-type: none"> <li>• Most preferred Facebook</li> <li>• Accessible</li> <li>• Reliable</li> <li>• Easy to use</li> <li>• Familiar</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed results (one class thought Facebook was more convenient, the other Webcourses)</li> <li>• Some said it wasn't used enough to be convenient</li> <li>• Potentially convenient: more integration with the class, mobile devices</li> </ul>
Discussion Board	<ul style="list-style-type: none"> <li>• Facebook has a visual element that the university's platform lacks</li> <li>• Facebook has unique features for discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Most preferred Webcourses</li> <li>• Enjoyed putting a face to a name</li> </ul>	<ul style="list-style-type: none"> <li>• Most preferred Facebook</li> <li>• Didn't need to learn new software</li> <li>• Liked features</li> <li>• Ability to post more than text</li> <li>• Limited space</li> </ul>	<ul style="list-style-type: none"> <li>• Most preferred Webcourses</li> <li>• Enjoyed putting a face to a name</li> </ul>

## Reliability for Open-Ended Questions

Inter-judge reliability for the two open-ended questions at the end of the survey was 100%.

## DISCUSSION

The purpose of the study was to explore the student's perceptions on the use of Facebook in courses in regards to privacy, convenience and preference to web-based course management tools. To further explore all of the potential instructional tools that Facebook offers, the type of interaction students were exposed to was varied. Some students were required to have a direct friendship with the professor, while other students interacted within a Facebook group. Several themes emerged from student responses, both among all students and within course type.

Prior use of Facebook was not statistically related to whether students preferred a certain discussion board or whether they felt one was more convenient. However, many of the qualitative responses indicated that prior use was a factor in determining whether students enjoyed using Facebook for class. With regards to the discussion board, participants felt that they were knowledgeable about how Facebook worked and were familiar with its interface, which was not what they consistently reported about the university's platform. This was especially a concern for incoming freshmen who had never taken an online course and who oftentimes have very minimal time to get accustomed to the system. Furthermore, students mentioned the convenience of using Facebook for class because they are already using it on a daily basis, so posting for class was quick and easy, consistent with the conclusions of Lenhart (2007), Lenhart, (2010), Maloney (2007), and McLoughlin and Lee (2007).

With regards to privacy, the participants' responses in the closed courses followed a general pattern, but they were not necessarily uniform. Specifically, participants were less likely to feel that Facebook was an invasion of privacy if they had used the social network site prior to it being required for academic purposes in their course. However, some participants stated that they did not think that Facebook was an appropriate tool for academic purposes while others stated that they did not feel comfortable with mixing their private lives/profiles and their academic lives. This need to compartmentalize is consistent with Merton's (1968) Social Interaction Theory about social status. In other words, students have multiple statuses that they occupy, including personal statuses as well as the status of student. These statuses are defined by various roles and behaviors. While occupying the status of a student, a person is typically required to exhibit behaviors, such as professionalism, punctuality, and intelligence. To many students, their Facebook profiles might not display the behaviors of a student, but reflect their various personal statuses, causing role conflict. Interestingly, none of the participants in the interdisciplinary honors course felt that Facebook for class was an invasion of their privacy, which possibly indicates that they had less conflict because the behaviors expected of them in their

course as a student were not incongruent with the ones that they ordinarily display outside of the academic setting.

Since this study was conducted, Facebook has altered the structure of closed groups, eliminating the use of discussion boards within groups. All conversations must now take place on the group's wall, which limits functionality and the use of direct links. However, closed groups still exist, enabling students to join a class Facebook presence without a direct friend relationship with the instructor.

Results with regards to privacy within the closed courses followed a general pattern, but were non-uniform. The same was true of results among the open courses. Since the four courses were taught by three different instructors, it is likely that individual teaching styles and course dynamics account for the variation in results. One instructor's emphasis on Facebook may, for instance, create a work-like atmosphere for the social media tool, while another instructor's de-emphasis of Facebook might create a more casual environment for student use of social networking.

Finally, the participants' qualitative responses revealed that they like being able to see, via others' profile pictures, who they are talking to. They felt that having a picture made their interactions with classmates more of a conversation. For many of them, Facebook also offers features like auto-notification, which notifies them when they have a response has been provided to one of their posts and allows them to respond quickly, without having to randomly login throughout the day. In addition, many of them commented that Facebook is available on a variety of technologies, such as mobile phones, which permits them to check on posts and discussions beyond a desktop computer. These features could be further explored in future research.

## SUMMARY

Overall, this study provides evidence that Facebook can be a valuable tool in postsecondary settings. However, further research needs to be conducted with regards to Facebook's utility for other disciplines/content areas and modes of instruction (i.e., face to face; mixed mode; fully online). Limitations of this study include the possibility that (1) the type of Facebook account created by the professors (i.e., professional use only or personal) influenced the students' perceptions and (2) instructor personality played a role in students' reception of the use of Facebook, since different instructors were used in all parts of the study. A study that controlled for these limitations would provide welcome support for the utility of Facebook in educational settings.



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## APPENDIX

### Section I: Demographic Information

- Q1. What is your age?**
- 18 – 20
  - 21 – 25
  - 26 – 30
  - 31 – 35
  - > 35
- Q2. What is your gender?**
- Male
  - Female
- Q3. What is your class standing?**
- Freshman
  - Sophomore
  - Junior
  - Senior
  - Others
- Q4. What is your major?**  
(Please respond on the attached answer sheet)
- Q5. What is your race/ethnicity:**
- African American
  - Caucasian
  - Hispanic/Latino
  - Asian/ Pacific Islander
  - Others

### Section II: Experience with Facebook

- Q6. Identify which class you are in (choose only one):**
- SPA4478
  - SPA6410
  - SPA6417
  - IDH3930H
  - Other
- Q7. I used Facebook (in any capacity) before this class.**
- Strongly agree
  - Agree
  - Neither agree nor disagree
  - Disagree
  - Strongly disagree
- Q8. In regards to this class, I often posted to Facebook BEYOND what was required in class.**
- Strongly agree
  - Agree
  - Neither agree nor disagree
  - Disagree
  - Strongly disagree
- Q9. I felt like the use of Facebook in class was an invasion of my privacy.**
- Strongly agree
  - Agree
  - Neither agree nor disagree
  - Disagree
  - Strongly disagree

- Q10. Do you feel that a direct Facebook “friendship” with the professor in this class would have been beneficial?**
- Yes
  - No
- Q11. When using Discussion Boards in Facebook and Webcourses, which do you prefer?**
- I prefer Facebook
  - I prefer Webcourses Discussion Boards
  - I like Facebook and Webcourses Discussion Boards equally
  - I dislike both Facebook and Webcourses Discussion Boards
  - No opinion
- Q12. In terms of convenience, which do you prefer?**
- I prefer Facebook
  - I prefer Webcourses
  - I like Facebook and Webcourses equally
  - I dislike both Facebook and Webcourses
  - No opinion
- Q13. For this class, did you use or create an account on Facebook that is separate from your “personal” (regular) Facebook account?**
- Yes
  - No
- Q14. After the semester ends, do you plan to use the class’s Facebook presence to maintain a relationship with the professor?**
- Yes
  - No
- Q15. After the semester ends, do you plan to use the class’s Facebook presence to maintain a relationship with other students?**
- Yes
  - No
- Q16. After the semester ends, do you plan to use the class’s Facebook presence for networking?**
- Yes
  - No
- Q17. After the semester ends, do you plan to use the class’s Facebook presence to access the class material?**
- Yes
  - No
- Q18. Which elements of Facebook (that you used for class) did you like? (Please respond on the attached answer sheet)**
- Q19. Which elements of Facebook (that you used for class) did you dislike? (Please respond on the attached answer sheet)**