Training Tomorrow's Broadcasters: A Comparison of Employers' Needs and Educators' Intentions

Presented to the National Association of Broadcasters
and the
Broadcast Education Association

Las Vegas, NV
April, 1999

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*The authors are recipients of a 1998 NAB Grant for Research in Broadcasting and gratefully thank the **National Association of Broadcasters** for their support of the research reported herein.*

EXECUTIVE SUMMARY

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The complete report can be found at: http://www.uic.edu/~rebecca/nabgrants

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Educators today are training the broadcast professionals of tomorrow, preparing them with what are assumed to be pertinent skills and abilities. But how do educators' assumptions of the qualities needed for success in an entry-level position (and future advancement) correlate with the assumptions held by media managers?

This research uses survey methodology to address a total of eight research questions, focusing on what characteristics media managers think make for a successful entry level employee and what is needed for promotion beyond entry level, educators' perceptions of the same, and a comparison of the two groups.

Representative samples of broadcasters and educators were taken using periodic sampling of available lists. Self-administered web- and fax-based questionnaires were provided, along with follow-up-reminders. A total of 303 broadcasters filled out the survey, as did 341 educators.

Most of the questions provided open-ended data, analyzed with Danowski's (1993) Wordlink program which allows us to discover and map the relationships among words in the responses. We can discern the frequency with which certain words, terms, concepts, attitudes, and values are associated with perceptions about successful media employees, and ascertain and interpret differences between educators and employers in the underlying themes and structures present in their responses.

Main Findings

As the report examines and interprets the findings of this research it considers what is common to both broadcasters' and educators' views, what is different, and what implications these patterns have for communication between broadcasters and educators, educators and students, and broadcasters and students.

What makes for a successful entry-level employee?

Qualitative analysis for the question about what broadcasters are looking for in entry-level personnel reveals that the following attributes are mentioned by both broadcasters and educators: Interested, Enthusiasm, Communication skills, Willingness to learn, News, Understanding, Experience, Writing skills, Sales, Good basic skills, Strong work ethic, Good computer skills, Willingness to work, Team player, Common sense, Positive attitude, and Dependability. Two areas in broadcasters' responses have no direct match in educators' responses: (1) **"performance,"** including the attributes of talent, voice, and appearance; and (2) **"personality,"** including the attributes of desire, energy, intelligence, attitude, personality, and potential.

Educators have five unique clusters of attributes for which there is no exact match with broadcasters: (1) **"cognitive,"** including the attributes of broad, liberal, current, critical, thinking, question(s), and knowledge; (2) **"personality"** attributes different from those

broadcasters cite: initiative, flexible, creativity, professional, quality, and quickly; (3) **"production,"** including production, technical, equipment, technology; (4) **"news skills,"** including reporting and editing; and (5) **"industry,"** including broadcasting, industry, training.

The quantitative analysis of differences in relative frequencies of words and word pairs revealed that broadcasters place significantly more weight on computer skills than do educators. Computer skills is as technical as broadcasters get, while educators focus on technical and production skills. Educators also give significantly higher attention to writing skills than do broadcasters, though both groups mentioned writing skills as important.

What is needed for promotion beyond entry-level positions?

Our qualitative analysis of the question about what is needed for promotion beyond entry level positions showed much overlap between broadcasters and educators. Matching attributes included able(ity)(ities), skills, willingness, job, good, learn(ing), experience, desire, business, talent, knowledge, news, initiative, demonstrated, performance, commitment, and understanding.

Our quantitative analysis revealed that broadcasters emphasized a willingness and desire to do good work, having a strong work ethic, a willingness to learn, and being a team player more than did educators. Educators, on the other hand, commented more on the organization, the industry, on communication skills, and characterized the work required as involving long hours. They did not point to individuals' personal qualities.

How effective are educators at preparing students for entry-level positions, and why?

Both the closed-ended question about educators' effectiveness in preparing students for entry-level positions and the responses to the open-ended question show that broadcasters are less likely than educators to see educators as effective in preparing students. Broadcasters comment that educators do not have enough hands-on experience of the real world, and lack

knowledge of the field. This is consistent with a statistically significant lower rating that broadcasters gave to the effectiveness of educators in preparing students for entry-level positions.

Our qualitative analysis of the reasons why educators have that degree of effectiveness at preparing students for entry-level positions reveals the following matching words and phrases: not, broadcasting, industry, experience, knowledge, business, real, teaching, world, need, skills, real world, good, field, understanding, equipment, technology, basic, market, theory, news, little, too much, practical, markets, production, basics, current, hands-on, prepare, and difficult.

On the other hand, educators comment more on their preparing of students by teaching them in the classroom the practical skills they need, and providing them with professional experience. Educators are more likely to mention critical thinking skills and the liberal arts. Educators think they are doing quite well, significantly better than broadcasters think they do.

The quantitative comparison of relative frequencies of words and pairs reveals that the overall tone of broadcasters' responses to the question asking why educators are effective or ineffective at preparing students for entry-level positions was negative. Educators also take a negative tone in answering this question. Some, however, indicate that they are teaching the right things to students. Others offer reasons why they are not teaching more of what they know they should be.

How effective are educators at preparing students for promotion beyond entry-level positions, and why?

Once again, educators rated themselves significantly more effective than did broadcasters. Qualitative analysis of the open-ended responses revealed exact matches for: broadcast(ing), not, work, good, experience, industry, no, skills, communication, know, and think. In the quantitative comparison of word pairs and words, broadcasters used only one

word pair significantly more: "entry-level." Educators used the following pairs more: "liberal arts, I do, I am, want to, does not."

In the quantitative analysis of individual words, broadcasters tend to focus within the station and do not attend much to the educators: "people, radio, sales, business, real, entry, level, air, career, work, station, news." Educators appear to focus more on differences in the discipline: "media, communication, journalism" and also "liberal arts." Other significantly more frequent words are inwardly-focused on their perceived higher effectiveness: "university, department, faculty, teaching, teach, offer, preparing, students, courses, course, majors, training, production, study, school, area. They also focus on: "professional, management, results, internships, and jobs."

Recommendations

The findings of this study call for increased communication between broadcasters and educators on a number of important issues:

- *Writing.* Given that educators answers place more emphasis on writing skills than do broadcasters, it is important for this difference to be discussed to determine whether the difference is real or the artifact of different styles of communication about writing between broadcasters and educators. For example, we cannot tell whether broadcasters include writing by implication when they talk about "good skills" and "basic skills." If the difference is real, then it is important for educators to know why writing skills are not as important to broadcasters as educators think they are, so that they can evaluate this in curriculum decisions.

- *Production.* Educators' greater attention than broadcasters to production skills raises similar questions. Are broadcasters including production skills in their conceptions of "basic skills" and "good skills" or are these real differences? Evidence from panel discussions at recent conferences suggests that the difference is more real than due to semantic variation. Broadcasters appear more willing than educators think to have entry-level personnel learn production skills on the job. Increased communication between broadcasters and educators on this issue can resolve whether this difference is real and if so, educators can factor this into their curriculum decisions.

- *Internships.* While broadcasters talk about the importance of experience in evaluating prospects for entry-level positions, they have a low rate of mentioning "internships." In contrast, educators make frequent reference to "internships" in their comments. Is this difference merely one of semantic framing or do broadcasters actually have low valuations

of internship experience and instead look at experience in previous full time broadcast positions? If the former is the case, educators and students can rest assured that including internships in the curriculum is a solid way to give students the kind of experience for which employers are looking. If the latter is the case, then educators and students need to wrestle with a tough "Catch-22" situation.

- *Liberal Arts Education.* The greater mention by educators than by broadcasters of a "liberal arts" education as important to both entry-level and positions beyond suggests that educators need to obtain more in-depth information about how broadcasters feel about liberal arts education, and what kinds of broadcasters may be in agreement. Some educators may be motivated to attempt more articulation of their perspectives to persuade those broadcasters who do not place value on a liberal arts education about its values in the workplace.

- *Critical Thinking.* Likewise, more communication is called for between broadcasters and educators about the latter's greater attention to "critical thinking" skills. Broadcasters may include this in their conceptualization of "good basic skills" and not mention it specifically. On the other hand, some broadcasters may think of critical thinking as irrelevant to how they want entry-level and higher personnel to think on the job. Knowing more about these conceptions can help educators evaluate their curriculum and how they present it to the media industry.

- *Creativity.* Another concept mentioned more by educators that merits increased communication about with broadcasters is "creativity." In the broadcasters' minds is this generally thought of as part of "good basic skills" or is considered irrelevant to entry-level positions and promotion beyond entry level? Again, the benefits to educators of this communication and clarification are similar to those about the other attributes discussed here.

- *Work Ethic and Personality.* Educators may wish to work with broadcasters to develop specific assessment instruments to measure students' work ethic and other personality characteristics deemed important by broadcasters. With the right tools, educators can use this information in their work with student selection and counseling.

- *Faculty Development.* Given broadcasters' perceptions that educators do not have enough "real world" experience it would be desirable to have more opportunities for educators to gain real world experience through such programs as paid faculty summer internships in broadcasting stations. Discussions with organizations in the broadcast industry can work out the most effective ways to create, manage, and fund these faculty development opportunities.

- *Department Advisory Committees.* One way to increase communication between broadcasters and educators is for departments to form advisory committees of broadcasters to examine departments and make recommendations for improvements. This advisory committee could also help the department arrange for guest speakers from the industry. Moreover, many of the questions raised in the various recommendations we have made could be addressed at the local level and both broadcasters and educators would benefit from having closer ties.

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Introduction and Research Questions

Educators today are training the broadcast professionals of tomorrow, preparing them with what are assumed to be pertinent skills and abilities. With the noblest of intentions, educators arm young people with techniques and tactics before sending them off into the real world of the electronic media industries. How well are educators doing at preparing these individuals for the real world? How do educators' assumptions of the qualities needed for success in an entry-level position in the media (and future advancement) correlate with the assumptions held by media managers?

It is vital, in this time of technological and regulatory upheaval, that the industry be presented with individuals prepared to face these challenges. Do we need to redefine how these individuals are prepared? At the very least, we should define the fundamental nature of what educators are trying to instill in their students, as well as what the broadcaster desires from these students when they graduate. If a comparison indicates that broadcaster needs differ substantially from educator intentions, perhaps we do need to revisit the goals, policies, and/or procedures of media curricula. If there is no substantial difference, educators can proceed with confidence, firm in their knowledge that they are indeed preparing students to meet the challenges of the future … a future that is encroaching ever more forcefully on our present.

The present research relies on survey methodology utilizing primarily open-ended questions. Open-ended questions are valuable because they introduce minimal bias, unlike closed-ended questions which steer the respondents to think along lines dictated by the researcher's choice of questions. The open-ended questions used here fulfill two purposes: First, we assess what media educators believe they should provide their students in preparing them for employment in the industry, as well as what media managers believe is desirable in employees. Second, we compare the similarity of responses given by teachers and media managers.

This research utilizes a form of computerized network analysis which provides qualitative analysis by using quantitative procedures. For example, when we ask teachers and media managers what they think makes for a successful entry level media employee, Danowski's (1993) *Wordlink* program allows us to discover and map the relationships among words within the responses. It allows us to discern the frequency with which certain words, terms, concepts, attitudes, and values are associated with perceptions about successful media employees. It allows us to ascertain and interpret the differences (if any) between educators and employers in the underlying themes and structures present in these two groups' descriptions of how students should be prepared to enter the broadcasting industry.

Thus, this research not only identifies the attributes, skills, or qualities of the successful media employee, it also ascertains whether or not there are any fundamental differences (and if so, what they are) between what educators want to instill in their students and what employers would like to receive.

The goals of the proposed research, though important, are fairly straightforward and can be presented in the form of simple research questions. The questions address preparation for entry level positions as well as for advancement within the media organization.

(RQ 1a) What qualities/skills/attributes do media managers think make for a successful entry level employee?
(RQ 1b) What qualities/skills/attributes do media educators think make for a successful entry level employee?

(RQ 2) How do media managers and media educators compare in their perceptions of what qualities/skills/attributes make for a successful entry level employee?

(RQ 3a) What qualities/skills/attributes do media managers think are necessary for promotion beyond an entry level position?
(RQ 3b) What qualities/skills/attributes do media educators think are necessary for promotion beyond an entry level position?

(RQ 4) How do media managers and media educators compare in their perceptions of what qualities/skills/attributes think are necessary for promotion beyond an entry level position?

(RQ 5) How effective do media managers and media educators think educators are at preparing students for entry level positions and why, and how do these groups compare in such perceptions?

(RQ 6) How effective do media managers and media educators think educators are at preparing students for promotion beyond entry level positions and why, and how do these groups compare in such perceptions?

Literature Review

Most of the literature on training programs for future media professionals is rooted in journalism, although there is some work on analyzing advertising and public relations curricula and their effectiveness. Some of this is fairly general; several scholars have discussed the various models of journalism and mass communication education in countries around the world, including Kenya (Okigbo and Pratt, 1997), Japan (Cooper-Chen &

Takeichi, 1997), Russia (Morrison, 1997), China (Xiaoming & Xiaoge, 1997), and Zambia (Ogundimu, 1997).

Others have described the qualifications and experience of journalism educators. Tuggle and Sneed (1998), for example, found that only ten percent of the members of the Association for Education in Journalism and Mass Communication hold the terminal degree plus five or more years of professional experience. Respondents to Tuggle and Sneed's survey indicate that the latter is deemed especially beneficial to them as teachers. Lind (1997) found in a survey of the membership of the Broadcast Education Association that 64% of the members held the terminal degree, while 32% list five or more years of professional media experience. Sallot, Cameron and Weaver-Lariscy (1998) found fewer PhDs and more professional experience in their sample of public relations educators -- about 53% of respondents held the terminal degree, while 88% had five or more years of professional public relations experience.

The asking of these questions points up the importance of both professional experience and the terminal degree, which in itself is a controversy in the academy. According to Hart (1989), journalism and mass communication faculty cannot come to a consensus about their relationship to the professional world, and Rowland (1999) argues that to dichotomize faculty orientations as either professional or academic is to engender "essentially false impressions of a split" (p. 44). Rowland goes on to say that "very few of even the most craft-oriented journalism programs have ever been without roots in social, behavioral, or political theory" (p. 45). Still, the perception of the split between scholars and professionals remains, with, as several reports conclude, harmful consequences. The *Pauley Report* (Davis & Zeigler, 1996) points up the fact that professional experience is on the wane among journalism faculty as

new hires come on board with the PhD degree but little or no professional experience. Further, Betty Medsger's 1996 report titled *The Winds of Change: Challenges Confronting Journalism Education* makes an alarming claim: by emphasizing the terminal degree over professional experience, colleges and universities are threatening the very future of journalism and mass communication education.

Such claims fuel the fires of curricular reforms, and many educators have called for reform. For example, Griffin and Pasadeos (1998) note that advertising and public relations educators are examining the practice of "integrated marketing communications" in the advertising industry as a possible model for changes in the advertising/public relations curriculum. Broader, more sweeping reforms have been recommended by a variety of educators, most notably Christ (1995; 1997), Christ and Blanchard (1994), Medsger (1996), McCall (1999), Rowland (1999) and Blanchard and Christ (1993). Christ (1995, p. 2) argues that to "teach what the person who hires our students for their first job wants us to teach" is precisely the wrong thing to do. McCall would agree; he wrote "selling out to careerism and vocationalism in communication education creates several major problems (1999, p. 284). To do so, he argues, "is fundamentally not the best way for our students to be educated for a life of work and individual challenges (1999, p. 284). Further, "communication departments engaging in practitioner preparation reduce their own legitimacy in the academy" which "allows the practical world to steal the academy's vision as a place for intellectual pursuits" (1999, p. 284).

Students don't need more narrowly-focused skills courses, argues McCall -- what they need is a stronger conceptual and processual foundation. For example, "prospective advertising professionals are more 'skilled' by understanding the processes of persuasion and

interpersonal communication" (McCall, 1999, p. 285). The emphasis should be not on how to do something "but on why to do it, how to analyze it, and how to determine its effects" (McCall, 1999, p. 285). Such an emphasis is said to prepare students for the world in which they will be working -- a world that is in a state of flux. As Christ (1995, p. 2) put it, "our undergraduate students need to be prepared for many different communication opportunities, media outlets, and emerging professional fields."

Christ (1994) further advocates a "New Liberal Arts" education, which, according to Christ and Blanchard (1994, p. 31) "integrates traditional disciplines with professional communication objectives." More specifically, Blanchard and Christ (1993) argue that a New Liberal Arts education would respond to three major criticisms of undergraduate education: that it "lacks integrity and purpose" (p. 32-33), it "needs revitalization" (p. 33), and "that it is too vocational, narrow and fragmented, and needs integration and unity of knowledge" (p. 33).

Yet there seems to be no overwhelming rush by departments to embrace the concept of a New Liberal Arts tradition. Medsger (1996, p. 10) expressed the conflict quite well: "To be a journalism teacher as the year 2000 nears is to live in a Tower of Babel amid opposing ideas about what journalism education should teach and what a journalism program should do and be."

Less drastic than complete curricular overhaul are suggestions for improving the teaching of particular course offerings. For example, Pauli (1998) recommends that educators utilize classroom simulations if actual hands-on experience is impossible. Jabro (1998) advocates the use of realistic exercises in video production courses. Internships, and their effectiveness, are discussed by Davie, Fleisher, and Rodriguez-Gillman (1999), Alexander (1995), Hadley (1983), and Weaver and Siegel (1998), among others. And a special issue of

the *Journal of Mass Media Ethics* in 1997 focused exclusively on teaching media ethics courses (see Baker, 1997; Barney, 1997; Birkhead, 1997; Brislin, 1997; and Yoder & Bleske, 1997).

Of even more value to the present study than the scholarship described above is research into the perceived effectiveness of media educators. Some of these studies describe educators' perceived effectiveness, while others make comparisons between educators' and professionals' perceptions of what students need.

The evaluations of educator performance in preparing students for careers in the media industry are not particularly glowing. For example, Wright and Turk (1990) reported that the skills and abilities of public relations graduates have been "questioned" by public relations executives. Walter (1985) wrote that advertising agencies believe the education of advertising graduates to be "too narrow," while Brody (1985) reported that media professionals believe that the training of graduates is in general unsatisfactory. This may be partly due to faculty's not being "alert" to the implications of changes in the structure and function of the advertising industry (Ganahl & Ganahl, 1992), a sentiment echoed by Duncan, Caywood, and Newsom (1993) and expanded by Caywood and Ewing (1992) who say employers wonder whether public relations graduates are prepared for what they will encounter as the industry changes. Several industry professionals, including Norm Pattiz of Westwood One Communications, John Gehron of American Radio Systems, Mark Mays of Clear Channel Communication, and Lynn Christian of the Radio Advertising Bureau call for academics to become more familiar with the radio industry as it exists today (Keith, 1998). As Mays put it, "You must find out more about us and our needs and interests" (Keith, 1998, p. 7). Mays went on to say that the radio industry could enjoy a much more positive relationship with the academic community:

"we can learn a great deal from the academy on how to better serve our listeners, our communities, our employees, and our investors. If you understand our frame of reference, we will appreciate your insights and input all the more" (Keith, 1988, p. 7).

Guiniven's (1998) survey of public relations executives found that professionals rated the following four items as the most important in the public relations curriculum: journalism, ethics, business, and psychology. The skills deemed most important were writing skills and oral communication skills. Practical skills were less important than were thinking skills. Jane Pauley of NBC News would agree. According to the *Pauley Report* Davis & Zeigler (1996), "Pauley questions whether journalism programs place too little value on knowledge and too much on skills training."

To address this, in research funded by Pauley, two surveys were conducted. News directors around the U.S. were asked what characteristics they considered most important in new employees, and to evaluate recent graduates seeking entry-level positions. In conjunction with this survey of professionals, broadcast journalism educators were asked about their perceptions of student quality. According to the news directors, many new graduates are ill-prepared. Job applicants are seen as "seriously deficient in their ability to write well. There is concern about personality and attitude, and about knowledge, particularly of current events" (Davis & Zeigler, 1996, p. 7). Yet news directors did perceive some positive characteristics of new graduates -- they are perceived as enthusiastic, eager to work, and willing to work hard for long hours.

The surveys also showed that educators do acknowledge some shortcomings of the graduates, though often to a much smaller extent than perceived by broadcasters. For example, (Davis & Zeigler, 1996, p. 7) found that only "25 percent of the educators identify

writing as a weakness while 45 percent of the broadcasting executives see writing as a weakness." Further, educators also overestimate the importance placed by news directors on specific technical skills -- unless, as the report notes, "the news directors are assuming the need for technical skills is obvious" (Davis & Zeigler, 1996, p. 10).

This is not the only research showing that educators and media professionals differ on their perceptions of what is important or how effectively each other is doing her or his job. According to Sumner (1995), media professionals want educators to teach practical skills rather than conduct research, whereas the latter is valued more highly in the academy. Sallot, Cameron, and Weaver-Lariscy (1998) found that educators think they hold higher standards than do public relations professionals, and underestimate public relations practitioners' professionalism (when compared to practitioners' self-evaluations) about half the time. On the other hand, Wright and Turk (1990) report that public relations professionals have neither encouraged nor utilized the scholarly public relations research conducted by academics. Keith (1998, p. 8) describes the relationship between academics and professionals as "a fault line born of a combination of suspicion, ignorance, and ego on both sides" and characterizes this "breakdown of communications by the *Communicators* -- broadcaster and broadcast teacher alike -- [as] a sad and twisted irony."

All told, previous research does not paint a particularly rosy, or cohesive, picture of educators' effectiveness at preparing students for jobs in the media. The present research provides an update on these studies. It further expands the window to look out upon the field more broadly, rather than focusing on journalism or public relations or advertising.

Method

Design.

The basic research design involves selection of representative samples of broadcasters and educators using periodic sampling of available lists. Self-administered questionnaires were provided, along with follow-up reminders to increase response rate. This design was most cost-effective given available resources. Its main limitation is that of self-selection of respondents to participate. Those who choose to participate may be systematically different from those who do not and there is no way to tell how much these biases may operate. Nevertheless, this bias is likely to be similar across the two samples so that comparisons of them are still valid. Indeed, response rates were similar for the two samples, so self-selection biases are probably the equivalent for the samples.

Samples.

To create the broadcaster sample, we consulted the 1997 Broadcasting and Cable Yearbook and the Bacon's (1988) Radio/TV/Cable directory. We created a list of all the U.S. AM, FM, and television stations by call letters, and drew a skip interval sample of 2425 stations. Because there are more entry-level positions in small- and medium markets than in large markets, we wanted our sample to focus on the former. Thus, when preparing the skip interval sample, we attempted to exclude stations in the top 10 markets. Our initial sample of broadcasters was much larger than that of educators because we thought we might have a much lower response rate (as it happened, we did not) and a higher incidence of bad addresses (this was indeed the case). Because we could not assume that the use of electronic mail is as widespread among broadcasters as it is among educators, we did not exclude broadcasters without email addresses. We attempted to find email addresses of all the broadcasters in our

sample, by searching both the directory and the Internet, but we found it necessary to fax surveys to approximately 70% of the sample.

To create the educator sample, we compiled a list of the members having email addresses from the most recent directories from the following professional associations: the Broadcast Education Association, the Mass Communication Divisions of the National Communication Association and the International Communication Association, and the Radio-TV Journalism Division of the Association for Education in Journalism and Mass Communication. After duplicate addresses were removed from the list, a skip interval sample of 1499 names with email addresses was drawn.

Questionnaire.

Two parallel versions of a questionnaire, one for broadcasters and one for educators, were created and pre-tested prior to the collection of data actually used in the study. Each questionnaire contained the same open-ended essential questions: "What do you think media managers look for in an entry-level employee?," and "What is needed for promotion beyond an entry-level position?" Participants also rated, using 7-point Likert-type scales, how effective they thought media educators were are at preparing students for entry level positions and for promotion beyond entry level positions. Each of these scales was followed up by an open-ended question asking why respondents thought educators had that degree of effectiveness or ineffectiveness. Following these questions, respondents were asked to provide information about themselves, their position, and their department. Broadcasters and educators were asked similar, but not identical, questions in this section. Finally, all respondents were asked if there was anything else they'd like to add, and given an opportunity to respond to that question in an open-ended format.

The primary mode of data collection was through a web-based questionnaire filled out after receiving an emailed invitation to participate, but a fax-back version was prepared after we discovered that many of the broadcasters in our sample did not have email addresses or web access.

Sampled individuals and stations were sent an invitation to access the survey on a website and participate in the research. The emailed invitations for broadcasters and educators contained the URL, a brief description of the survey, and contact information for the principal researchers. The web-based survey was anonymous; no data about the respondents was collected other than what they mentioned in their responses. The faxed invitation to broadcasters, which requested that the recipient "please pass this on to the person who is best able to answer questions about entry-level employee skills," mentioned the URL and encouraged respondents to go to the website, but also included a simply-formatted two-page paper-and-pencil version of the survey that broadcasters could fill out and fax back to the researchers.

Because of the inherent differences in the "busy seasons" of these two populations, the two sets of invitations to participate were not sent simultaneously, and we sent two follow-up reminder requests for participation via email, but only one such reminder via fax. The educators received their first emailed request for participation on October 27, 1998, with follow up reminders six days and fifteen days later. The broadcasters received their invitations in two waves. The first (emailed and faxed) set of invitations was sent on November 5 and 6, 1998. Email reminders were sent one week and three weeks later. Fax reminders were sent two weeks later. The second wave of faxed invitations were sent on December 8, 10, and 11, 1998, with the follow-up reminders sent five through six weeks later.

Wordlink Computerized Content Analysis.

Wordlink (Danowski, 1993) is a program that aids the researcher in quantitative analysis of open-ended textual responses. A key thing that the program does is to identify pairs of words that appear close to one another in the text. With these pairs extracted the researcher then can use other tools to find strings of words by finding overlapping word pairs, or clusters of frequently co-occurring words. In effect, the *Wordlink* program slides a window through the text and codes the pairs appearing within the window. Based on testing for most effective word window size we have found that looking at three word positions on either side of a particular word gives pairs that produce optimal network clusters in subsequent analysis. Therefore in this study we used a sliding window sized at three words, which results in functional window width of seven words -- the word the window is centered on plus three words before and after. *Wordlink* also outputs a listing of unique words and their frequency counts, which facilitates descriptive and statistical analyses..

The program we used for network analysis of word pairs was *Negopy* (Richards, 1986). Negopy works well with any kinds of nodes, such as people, organizations, nations, or in this case words. We used default settings for the program on all group detection and related routines. The lower strength value we used is five occurrences of a word pair. This would allow for the most high resolution network results. For extracting key results from the network results we used a lower frequency cutoff of five.

Negopy is the most widely used network analysis program in the field of communication (Barnett, Danowski & Richards, 1993). Negopy is particularly useful because it uses a standard set of criteria to find groups of *nodes*, in this case words. It also identifies the nodes that operate at a higher order of centrality in the network, those primary and

secondary liaison words that link groups and other intergroup linkers together. *Peripheral nodes* are also identified. Overall, the most significant nodes in the network are first the *primary intergroup linkers*, the primary liaisons. They have a majority of their links with group member nodes, but not a majority with any one group. Next in importance are the *secondary intergroup linkers*, the secondary liaisons. These nodes do not have a majority of their links with group members but link to three of more other intergroup links or tree nodes. *Tree nodes* are peripheral nodes in the network that are attached either to the intergroup links or to group members but have an additional node with a single link attached to the end of their network chain. *Group members* are in between liaison nodes and tree nodes in importance. Groups represent nodes who share a majority of their links with others in the group. These represent dense regions of the network. Finally, there are *isolated dyads*, pairs of nodes that are linked only to one another.

For all but one question there are sufficient numbers of word pairs to conduct informative network analysis. So, our basic analysis occurs at three levels for each research question: 1) overall network structure and its various types of nodes, 2) word frequencies for broadcasters and for educators, and 3) word pair frequencies for these two samples.

The raw text files of answers to question by broadcasters and educators were first spell-checked using Microsoft's *Word97.* Then the *Wordlink* program was run. *Wordlink* was set up to group responses to each question and analyze them separately. We decided not to perform a stemming on the words (i.e., to drop various endings and leave only the roots of the words). In past studies we have found that using stemmed files can obscure valuable differences when comparing groups. For example, in a study of automobile dealer personnel views on customer satisfaction, employees who used the plural form "customers" were in

dealerships in the top quartile and also in the top quartile in sales. Employees who conceptualized themselves as dealing with the "customer" were in the bottom quartile of both J.D. Power ratings of customer satisfaction and sales. The singular versus plural distinction captured a world view that distinguished dealerships that conceptualized customers as an important component of their business plan from those that looked more narrowly of adapting to the differences of each customer and his or her problems. Thus, we are reluctant to stem text files for analysis.

Another decision in using *Wordlink* is whether or not to use what is called a "stop list," which means a list of words to exclude from analysis. Stop lists are commonly used in automatic text processing in library science programs for searching databases, when the basic stop list is quite large (approximately 550 words). We ran the program in both modes so differences in such words as pronouns, articles, and verbs of being could be examined if necessary. Earlier studies have found value in making comparisons on these kinds of words. Using all words, however, is not desirable for network cluster analysis because the common words result in network solutions that have a simple core-peripheral structure of a single large group of words. So, for reasons of wanting to take advantage of the analytical benefits of network analysis of word pairs we used a small drop list of 100 words, comprised of articles, pronouns, and verbs of being. Had we used a larger stop list such as used in database searching we would lose many meaningful words for our purposes.

As mentioned above, besides word pair files usable in network analysis or by themselves as useful data, *Wordlink* also outputs lists of individual words and frequency counts. For these outputs we used no drop list and used a cutoff of five frequencies within the two samples separately.

Statistical Analyses.

To test whether media managers and educators present similar concepts when discussing the qualities needed for entry into and advancement within the broadcast industry, we use the Z-test for comparing two sample proportions (Moore & McCabe, 1993). In our comparisons of broadcaster and educator responses for both word pairs and individual words, we followed the norm (Moore & McCabe, 1993) of analyzing words having a frequency greater than five. In our presentation of results, however, we selected from the output files words and pairs with a frequency threshold of ten.

Results

Achieved Samples.

A total of 2452 requests for participation were sent to broadcasters, 1704 via fax and 721 via email. Of the 1704 fax numbers, 559 were no good, leaving 1145 usable numbers. Of the 721 email addresses we obtained for broadcasters, 442 were no good, leaving 279 usable email addresses. Thus, a total of 1424 requests actually were received, with a total of 303 surveys completed either via fax or via the website, for a broadcaster response rate of 21.3%.

Most of the 303 broadcasters participating in this survey worked at radio stations (75.4%); 15.8% represented television stations, while 8.8% represented both radio and TV stations. The stations were mostly network affiliates (39.6%), with 28.6% independents; 31.8% of respondents worked with both affiliates and independents. The bulk of the respondents, as expected, were from small (57.6%) and medium (33.7%) markets, with 8.8%

from large markets. Most respondents were upper- (62.2%) or middle- (30.6%) management, and had an average of just over 16 years of professional media experience (Mean = 16.42 years; SD = 5.13). Tables 1 through 3 describe the broadcaster sample further, in terms of the respondents' departments and geographic location, as well as the average number of entry-level employees hired by the station per year.

Table 1: Departments in which Broadcaster Respondents Work

	Freq	*Valid %*
Production	24	8.5
Programming	72	25.5
Sales	29	10.3
Promo/Marketing	14	5.0
Engineering	8	2.8
News	24	8.5
Other	111	39.4

Table 2: Locations in which Broadcaster Respondents Work

	Freq	*Valid %*
Northeast	40	13.6
Northwest	26	8.8
Midwest	106	35.9
Southeast	56	19.0
Southwest	38	12.9
South	22	7.5
Other	7	2.4

Table 3: Annual Entry-Level Positions Filled by Broadcaster Respondents' Stations

	Freq	*Valid %*
0 to 3	188	64.4
4 to 6	61	20.9
7 to 15	35	12.0
16 to 30	6	2.1
More than 30	2	0.7

Of the 1499 messages inviting educators to participate in the survey, 266 had inaccurate email addresses, resulting in 1233 usable addresses. Of the 1233 individuals receiving the email message, a total of 341 completed the web-based survey, for an educator response rate of 27.7%. A small number of individuals asked for an email or a fax version of the survey, and we accommodated all such requests.

Most of the 341 educators responding to the survey taught in Communication departments (58.3%); 12.2% taught in Journalism departments, 5.1% in Radio-TV-Film departments, 4.2% in Telecommunication departments, and 20.2% in "other" departments. A qualitative analysis of the descriptors provided for the "other" departments showed that most of the responses indicating "other" departments reflected mass communication, journalism and communication, and speech communication. Table 4 describes the extent to which respondents' departments offer production and other specific courses, while Tables 5 and 6 describe the geographic location of the school and its average number of broadcasting majors.

The cities in which the schools are located were fairly evenly distributed according to market size – 37.9% are in small markets, 30.6% in medium, and 31.5% in large markets. Just as with the broadcasters, described above, the educators were of relatively senior rank –

Table 6: Number of Broadcasting Majors in Educator Respondents' Schools

	Freq	Valid %
0 to 10	51	17.7
11 to 25	42	14.6
26 to 50	49	17.0
51 to 100	57	19.8
101 to 300	67	23.3
301 to 500	12	4.2
More than 500	10	3.5

(RQ 1a) What qualities/skills/attributes do media managers think make for a successful entry level employee?

The network cluster analysis of broadcasters' open-ended responses to the question "What do you think media managers look for in an entry-level employee in the broadcasting industry?", using all word pairs occurring at least 5 times, found two groups of comments, indicating a relatively simple semantic structure. Group 1 contained the following words: "who, someone, person, people, look, think." Group 2 contained: "skills, writing, good, communication, basic, job, computer, technical, understanding."

Primary intergroup linking words included ***"work,"*** linked to: "who, good, ethic, learn, strong, ability, someone, willing, willingness." Another intergroup linker was ***"willing"*** which was connected to: "who, work, learn, person, someone." Words with a single link to a primary intergroup linker included: "***hard***--work, ***well***--work, ***hours***--work, ***takes***--willing, ***others***--work."

Secondary intergroup linkers were: ***"read"*** which was linked to "write, ability"; ***"strong"*** which was linked to "work, ethic;" ***"learn"*** which was linked to "work, ability,

willing, willingness;" ***"write"*** which was linked to "read, ability;" and ***"ability"*** linked to "work, write, learn, read, skills."

Words with a single link to a secondary intergroup linker included "***eagerness***--learn, ***clearly***--ability, ***desire***--learn."

There were several peripheral tree nodes: "some" linked to "skills, experience;" "radio" linked to "station, industry;" "sense" linked to "common, ability;" "attitude" linked to "good, positive;" "knowledge" linked to "basic, equipment." Isolated two word phrases included "team-player, English-language."

Additionally, examining the individual word frequencies without concern for their pairing and hence without concern for the cluster analysis discussed above, the top nouns, modifiers, and verbs words were also merged into the interpretation of what broadcasters are looking for in entry-level employees. These empirical results can be interpreted as follows, focusing on words and phrases with the highest frequencies of occurrence. The frequencies appear in parentheses after the word. The bottom cutoff was a frequency of 10. As a result we report the top 27 attributes that broadcasters are concerned with regarding entry-level employees. These are the words listed below:

interest(ed) (35)
desire (31)
enthusiasm (28)
good communication skills (26)
willingness to learn (24)
news (22)
understanding (22)
some experience (20)
good writing skills (19)
voice (18)
talent (18)
sales (17)
energy (17)
personality (16)
good basic skills (16)
a strong work ethic (16)
good computer skills (15)
willingness to work (14)
ability to read (13)
appearance (12)
a team player ability (12)
common sense (12)
a good positive attitude (11)
intelligence (11)
dependability (11)
potential (10)

22.3% were Professors and 20.7% were Associate Professors. Assistant Professors comprised 28.5% and Lecturers 7.5% of the sample, while 21.0% of respondents reported being of "other" rank. A qualitative analysis of the descriptors provided for the "other" rank showed that most of the "others" were graduate TAs, directors, chairs, or instructors. The educator respondents had significant professional media experience, though much less than that of the broadcasters in the sample. The educators averaged just over eight years' professional media experience (Mean = 8.14, S.D. = 7.16).

Table 4: Number of Educator Respondents' Departments Offering Certain Production and Other Courses

	Freq	*Valid %*
Radio/Audio production	215	63.0
TV/Video production	271	79.5
New Tech/Computer production	214	62.8
Other production	73	21.4
Sales	83	24.3
Management	168	49.3
Promo/Marketing	139	40.8
Journalism	255	74.8

Table 5: Locations in which Educator Respondents Work

	Freq	*Valid %*
Northeast	62	19.3
Northwest	11	3.4
Midwest	104	32.4
Southeast	51	15.9
Southwest	39	12.1
South	18	5.6
Other	36	11.2

(RQ 1b) What qualities/skills/attributes do media educators think make for a successful entry level employee?

The network cluster analysis of word pairs evident in educators' open-ended responses to the question "What do you think media managers look for in an entry-level employee in the broadcasting industry?" resulted in four groups of words and many primary and secondary intergroup linking words, indicating a more complex semantic structure than was found for broadcasters. Some of this is due to the 13% higher number of educator respondents, but the difference in structure shows a network twice as differentiated into groups or clusters than was found for broadcasters. One of the groups is much larger, however, than the other three.

The large group contained the words "who, can, employees, look, want, looking, people, think, willing, someone, learn, students, believe, able, person, not, new, entrylevel, employee, ie, know, much, must, take, being, should, quickly, dependable, demonstrate, necessarily." Group 2 contained "low, pay, long, hours." Group 3 contained "some, kind, experience, internship, internships." Group 4 contained "broad, liberal, arts, education."

Primary intergroup linkers were: ***"well"*** linked to "can, who, work, speak, write, others, ability;" ***"work"*** linked to "can, low, who, good, long, well, hours, others, people, skills, ability, willing, willingness;" ***"speak"*** linked to "can, who, well, write;" ***"expect"*** linked to "managers, students;" ***"others"*** which was linked to can, well, work, ability;" ***"skills"*** linked to "can, job, not, who, good, look, oral, some, work, basic, entry, level, people, strong, ability, editing, writing, written, critical, speaking, thinking, important, knowledge, reporting, technical, experience, production, communication;"

"managers" linked to "who, look, most, want, media, think, expect, people, believe, looking, employee, employees, individuals;" ***"knowledge"*** linked to "who, good, basic, media, skills, industry, broadcast, technical, broadcasting;" ***"individuals"*** linked to "who, managers;" and ***"willingness"*** linked to "long, work, hours, learn."

There were words that had only one link in the network, but to a primary intergroup linker. These included "***hard***--work, ***many***--skills, ***more***--skills, ***team***--work, ***areas***--knowledge, work--***ethic***, ***verbal***--skills, ***computer***--skills, work--***pressure***, ***specific***--skills, ***especially***--skills, ***technology***--knowledge, ***themselves***--well, ***expectations***--knowledge, ***interpersonal***--skills, ***organizational***--skills."

Secondary intergroup linkers were: ***"job"*** linked to "skills, experience;" ***"good"*** linked to "who, look, want, work, people, skills, writing, speaking, knowledge, communication;" ***"most"*** linked to "managers, important;" ***"news"*** linked to people, broadcast, production;" ***"oral"*** linked to "skills, written, communication;" ***"basic"*** linked to "who, look, media, people, skills, writing, industry, knowledge, technical, understanding;" ***"entry"*** linked to "level, skills, employees;" ***"media"*** linked to "look, want, basic, think, people, believe, looking, managers, employees, knowledge;" ***"write"*** linked to "can, well, speak, think, ability, someone;" ***"strong"*** linked to "skills, writing, communication;" ***"ability"*** linked to "well, work, learn, write, others, skills, writing, thinking, communicate, effectively;" ***"editing"*** linked to "skills, writing;" ***"writing"*** linked to "good, basic, skills, strong, ability, editing, speaking, reporting, communication;" ***"written"*** linked to "oral, skills, communication;" ***"critical"*** linked to "thinking, skills" ***"industry"*** linked to "who, basic, knowledge, broadcasting, understanding;" ***"speaking"*** linked to "writing, skills, good;" ***"thinking"*** linked to

"skills, critical, ability;" ***"broadcast"*** linked to "news, knowledge;" ***"important"*** linked to "most, skills;" ***"reporting"*** linked to "skills, writing;" ***"technical"*** linked to "basic, skills, knowledge;" ***"production"*** linked to "news, skills;" ***"communicate"*** linked to "ability, effectively;" ***"broadcasting"*** linked to "industry, knowledge, experience, internship;" ***"communication"*** linked to "good, oral, skills, strong, writing, written;" and ***"understanding"*** linked to "basic, industry."

Words with a single link, but to a secondary intergroup linker, included "***tv***--news, ***both***--written, ***done***--job, ***very***-important, ***works***-industry, ***attitude***--good, ***shooting***--editing, ***directors***--news, ***excellent***--communication, ***journalism***--broadcast, ***television***--news, ***information***--ability, ***demonstrated***--ability."

There was one peripheral tree node: "degree" linked to "some, college." The isolated word pairs included the following: "no--idea, meet--deadlines, clear--concise, first--foremost, current--events, depends--position, operate--equipment."

To interpret these results and those of the individual word frequencies, not taken into account in the network cluster analysis of word pairs, we extracted all phrases and words that occurred 11 times or more, adjusting for the differences in sample sizes between broadcasters and educators. Here, then, are the attributes that educators see broadcasters as looking for in hiring entry-level personnel. There are 48:

experience (117)
broadcast(ing) (91)
knowledge (79)
industry (60)
internship(s) (56)
news (55)
understand(ing) (54)
production (43)
edit(ing) (38)
technical (37)
attitude (31)
training (30)
equipment (30)
speak(ing) (27)
communication skills (26)
willingness to learn (24)
question(s) (24)
sales (20)
good skills (19)
basic skills (19)
writing skills (19)
willingness to work (17)
interest (17)
liberal (16)
professional (16)
work ethic (16)
computer skills (15)
depends (15)
critical (15)
technology (15)
communicate (15)
oral (15)
broad (14)
current (14)
thinking (14)
reporting (14)
enthusiasm (14)
interpersonal (14)
quality (13)
quickly (13)
team player (12)
common sense (12)
dependable (12)
positive attitude (11)
flexible (11)
creativity (11)
initiative (11)

(RQ 2) How do media managers and media educators compare in their perceptions of what qualities/skills/attributes make for a successful entry level employee?

The first point of comparison is on the linguistic types and tokens of the two groups. Types means number of unique words, and tokens means total number of words. Without normalizing for differences in the sample sizes, broadcasters used 6,735 words compared to 13,787 words for educators. Normalizing for sample size differences, educators used 82% more words. We can investigate the relative diversity of the words used by examining the number of unique words, linguistic types.

Broadcasters used 300 unique words; that is, their vocabulary size was 300. Educators used 499 unique words. Normalizing for sample size differences, educators' vocabulary size was 47% larger.

Despite these large differences it was surprising that vocabulary sizes on the whole were so low. Typically responses to surveys such as this one generate vocabulary sizes close to 1,000 words. The fact that the educators used only half that number of words may indicate that there is an unusually high consensus among respondents on responses in terms of what broadcasters look for in entry-level employees.

On the number of attributes that each sample identified for the question there were also differences. Using standardized criteria adjusted for sample sizes, we extracted from broadcasters' responses 27 attributes, and from educators' 48. This indicates that educators had 78% more attributes extracted. This percentage nearly matches the percent of higher verbosity of the educator sample.

A key question is how the larger attribute space of educators maps onto the space for broadcasters. Is there a basic structural similarity in which both samples are identifying the same core areas with educators simply using more diverse words to describe those core areas? Or, are the core areas of the two groups different in any important ways? We can address these questions empirically by doing an analysis of the words and word pairs generated by each sample and running a Z-test for proportional differences, thus performing a standardized analysis of differences and similarities. We can complement this analysis with a more general manual qualitative analysis in which we examine the two lists of attributes and determine, by looking for exact matches, which core areas are held in common and which are not. Before discussing the results of the Z-test for proportional differences, we will present the results of the manual qualitative analysis.

Qualitative Analysis: Exact Matches.

The 27 attributes listed by broadcasters were compared to the 48 listed by the educators, and 17 exact matches were found, for an overlap 63%. These matching attributes are: Interested, Enthusiasm, Communication skills, Willingness to learn, News, Understanding, Experience, Writing skills, Sales, Good basic skills, Strong work ethic, Good computer skills, Willingness to work, Team player, Common sense, Positive attitude, and Dependability.

Several of these shared categories contained subcategories, or attributes held by either broadcasters or educators, but not both groups. Under the shared Communication skills category, broadcasters had one unique attribute: Ability to read. Educators had several additional attributes which could be mapped into this concept: Communicate, Oral, Interpersonal, and Speak(ing). Under the shared category of Experience, educators had the additional attribute of Internships, while under the shared category of good basic skills educators had the attribute of Good skills.

Qualitative Analysis: Unique Broadcaster Attributes.

There are two areas evident in broadcasters' responses have for which there is no direct match in educators' responses. One of these areas we label **"performance."** It includes the attributes of talent, voice, and appearance. A second area we label **"personality."** It includes the attributes of desire, energy, intelligence, attitude, personality, and potential.

Qualitative Analysis: Unique Educator Attributes.

Educators also have some unique clusters of attributes for which there is no exact match with broadcasters. We label the first area **"cognitive."** It includes the attributes of broad, liberal, current, critical, thinking, question(s), and knowledge. A second area includes **"personality"** attributes different from the ones that broadcasters cite: initiative, flexible, creativity, professional, quality, and quickly. A third area we label **"production,"** which includes production, technical, equipment, technology. A fourth unique area is **"news skills,"** including reporting and editing. (We are not able to determine to what extent editing refers to editing of audio and video as compared to written news copy.) A fifth unique area focuses on the **"industry"** and includes broadcasting, industry, training. A sixth area is **"contingency,"** marked by the comment, depends.

To complement the manual mapping of attributes, we performed an automatic Z-test for proportions comparison on words and on word pairs for broadcasters and educators. The analysis of word pairs will be presented first, then that of individual words.

Quantitative Analysis: Z-test for Differences in Word Pairs.

The Z-test for proportions compares the normalized frequencies of occurrence of words or pairs between two groups, in this case broadcasters and educators. Here we extracted word pairs that were used significantly more frequently by broadcasters than by educators. A lower frequency threshold of at least 10 was used in extracting pairs for reporting here. Note that a word pairs' appearance on this list does not mean that pair did

not occur in the other sample's responses; appearance on this list means the word pair appeared significantly more- or significantly less often in one group's responses than in the other group's responses. The number in parentheses is the Z-score value:

computer skills (5.83)	positive attitude (4.67)	a willingness (3.09)
common sense (5.40)	work hard (4.41)	good attitude (2.93)
team player (5.40)	work ethic (4.03)	basic knowledge (2.62)

Educators used the following word pairs significantly more than did broadcasters:

good writing (-2.95)	work long (-2.23)	broadcasting industry (-2.03)
technical skills (-2.88)	long hours (-2.23)	internship experience (-2.03)
can write (-2.49)	can think (-2.23)	interpersonal skills (-2.03)
some experience (-2.41)	news directors (-2.23)	
liberal arts (-2.41)	write well (-2.13)	
depends on (-2.32)	know how (-2.13)	

Individual words that showed significantly different frequencies with greater use by broadcasters than by educators included:

desire (6.98)	ethic (3.53)	dependability (2.56)
learn (6.07)	personality (3.53)	intelligence (2.56)
business (5.15)	computer (3.51)	interested (2.56)
willingness (4.96)	common (3.31)	working (2.45)
player (4.96)	willing (3.17)	appearance (2.38)
enthusiasm (4.68)	positive (3.08)	education (2.32)
talent (4.64)	station (2.89)	background (2.28)
energy (4.44)	sense (2.87)	potential (2.28)
attitude (4.37)	team (2.87)	high (2.04)
voice (3.75)	hard (2.78)	
read (3.56)	work (2.67)	

Quantitative Analysis: Z-test for Differences in Individual Words.

Here are words (appearing at least 10 times) which educators used significantly more frequently than did broadcasters:

long (-3.20)
particular (-3.05)
operation (-3.05)
television (-2.97)
journalism (-2.97)
different (-2.97)
tape (-2.88)
arts (-2.88)
TV (-2.80)
professional (-2.80)
liberal (-2.80)
information (-2.80)
technology (-2.71)
idea (-2.71)
critical (-2.71)
reporting (-2.62)
interpersonal (-2.62)
effectively (-2.62)
current (-2.62)
broad (-2.62)
production (-2.61)
writing (-2.52)
train (-2.52)
say (-2.52)
quickly (-2.52)
question (-2.42)
present (-2.42)
technical (-2.39)
initiative (-2.32)
creativity (-2.32)
responsibility (-2.21)
internship (-2.15)
write (-2.03)

(RQ 3a) What qualities/skills/attributes do media managers think are necessary for promotion beyond an entry level position?

The network cluster analysis of broadcasters' responses to the question, "What is needed for promotion beyond an entry-level position?" reveals a relatively simple two group structure. One group included the words "work, ability, skills, willingness, learn, good, others, new, ethic, hard, lead, well, extra, desire, habits, willing." The second group included "many, entry, level, people." There were no primary or secondary intergroup linker words. There were however, some peripheral tree nodes: "job" linked to "done, ability, and description;" "who" linked to "can, someone;" "attitude" linked to "good, positive." Isolated word pairs included "move--up, not--just, news--director, team--player, right--time, above--beyond, person--needs, common--sense, track--record."

The following 27 phrases and words occurred at least ten times:

able(ity)(ies) (115)
skills (73)
work (70)
willing(ness) (60)
job (55)
good (53)
learn(ing) (48)
experience (35)
attitude (28)
able (23)
desire (22)
business (20)
talent (18)
work ethic (17)
knowledge (14)
news (14)
director (14)
good work (14)
team player (14)
initiative (13)
demonstrated (13)
performance (11)
record (10)
current (10)
interest (10)
commitment (10)
dedication (10)
understanding (10)

(RQ 3b) What qualities/skills/attributes do media educators think are necessary for promotion beyond an entry level position?

The network cluster analysis of educators' word pairs occurring at least 5 times in response to the question "What is needed for promotion beyond an entry-level position?" resulted in a structure with three groups of words. Group one included "see, think, write, energy, handle, proven, ability, lead, quality, work, ethic, others, well, quickly, learn, along, who, people, willingness, hard." Group two included "key, basic, writing, important, technical, management, interpersonal, skills, decision, making, communication, good, attitude, leadership." Group three included "go, beyond, entry, level, promotion, position." There were no primary intergroup linkers but several secondary intergroup linkers: ***"job"*** linked to "done, beyond, ability;" ***"done"*** linked to "job, ability;" ***"long"*** linked to "hours, work, willingness;" and ***"hours"*** linked to "long, work." Several peripheral tree nodes resulted: "must" linked to "skills, employee;" "above" linked to "plus, performance;" "ideas" linked to "new, ability;" "thinking" linked to "critical, skills;" "performance" linked to "job, above." Isolated word pairs included "being--able, team--player, right--time, being--able, sales--

experience, track-record, understanding--industry, additional training, commitment--organization."

The following 52 attributes were derived from words and phrases occurring at least 11 times:

ability (160)
skill(s) (131)
work(ing) (117)
job (72)
good (69)
willingness (40)
know(ledge) (39)
experience (38)
organization (37)
well (34)
time (32)
understanding (31)
industry (28)
initiative (27)
ability to work well with others (26)
hard (24)
news (23)
performance (23)
learn (22)
think (22)
team (20)
quickly (19)
leadership (19)
ideas (18)
drive (18)
good communication skills (18)
business (17)
management (17)
talent (16)
success (16)
long hours (15)
writing (15)
demonstrated (15)
managers (14)
creativity (14)
broadcasting (14)
willingness to work (13)
desire (13)
depends (13)
technical (13)
proven (12)
thinking (12)
commitment (12)
responsibility (12)
good skills (11)
hard work (11)
plus above (entry level skills) (11)
beyond entry (11)
move (11)
degree (11)
quality (11)
organizational (11)

(RQ 4) How do media managers and media educators compare in their perceptions of what qualities/skills/attributes are necessary for promotion beyond an entry level position?

Broadcasters used a total of 5,184 words in answering the question "What is needed for promotion beyond an entry-level position?". They used 258 unique words. Educators, on the other hand, used a total of 7,647 words, of which 345 were unique. Normalizing for sample size differences, educators used 30% more words than did broadcasters. Nevertheless they had only about half (55%) as much to say in answering

this question as they did on the first question. For broadcasters the drop-off in words was not as dramatic, at a 30% decline.

Qualitative Analysis: Exact Matches.

We performed a manual comparison to discover which attributes were present on both broadcasters' and educators' lists, without regard for frequencies. Of the 27 attributes mentioned by broadcasters, educators matched on 18, for an overlap of 67%: able(ity)(ities), skills, willingness, job, good, learn(ing), experience, desire, business, talent, knowledge, news, initiative, demonstrated, performance, commitment, and understanding.

Z-test for Differences in Word Pairs.

Here are word pairs used significantly more frequently by broadcasters compared to educators:

willing to (5.23)	to learn (2.94)	desire to (2.08)
good work (4.27)	team player (2.53)	
work ethic (3.61)	willingness to (2.43)	

Educators used these word pairs significantly more frequently:

the organization (-3.82)	communication skills (-3.46)	the industry (-2.94)
		long hours (-2.94)

Z-test for Differences in Individual Words.

Broadcasters used these words significantly more frequently than did educators:

willing (5.44)	attitude (4.19)	current (3.84)
director (4.55)	abilities (3.84)	interest (3.84)

learn (3.63)
ethic (3.53)
desire (2.71)
new (2.37)
ask (2.31)
radio (2.27)
player (2.22)
able (2.21)

Educators used these words significantly more frequently than broadcasters:

organization (-3.77)
long (-3.69)
quickly (-3.59)
hours (-3.50)
writing (-3.19)
jobs (-3.08)
technical (-2.97)
depends (-2.97)
specific (-2.85)
entry-level (-2.85)
skill (-2.73)
field (-2.73)
industry (-2.46)
communication (-2.43)
understanding (-2.00)
ability (-2.09)

(RQ 5) How effective do media managers and media educators think educators are at preparing students for entry level positions and why, and how do these groups compare in such perceptions?

Both the broadcasters and educators were presented with a seven-point Likert-type scale with which to respond to the question, "How effective do you think media educators are at preparing students for entry-level positions in the industry?". Responses ranged from "very effective" (value = 7) to "very ineffective" (value = 1), with a value of 4 indicating educators were neither effective nor ineffective in this regard. Following this, both groups were presented with an open-ended question asking why educators were perceived to have that degree of effectiveness or ineffectiveness. In this section, the results of the closed-ended question will be presented first, followed by the results of the open-ended question for the broadcasters and then the educators. Finally, the open-ended responses of these two groups will be compared.

Responses to Closed-Ended Question.

For the broadcaster sample, the mean was slightly below the neutral position (Mean = 3.60, S.D. = 1.35), while for the educators the mean was in the positive range (Mean = 4.76, S.D. = 1.19).

An independent samples t-test indicated this difference is indeed statistically significant (t = -11.19, df = 575.55, Prob = .0000, separate variance). Educators evaluate their performance in preparing students for entry-level positions significantly more positively than do broadcasters.

Results of Open-Ended Question, Broadcaster Sample.

The network cluster analysis of broadcasters' responses to the question asking why they think educators have that perceived degree of effectiveness or ineffectiveness resulted in a network structure with a two group solution. Group one included the words "may, just, sure, which, because, not, prepare, understand, enough, field, some, media, educators, see, teach, students, real, broadcasting, changing, industry, many, times, world, most, worked, keep, up, think, little, very, important, changes, only, can." Group two included "entry, level, positions." There were no primary intergroup linkers but some secondary linkers: ***"too"*** linked to "many, much, educators;" ***"much"*** linked to "not, too."

Peripheral tree nodes included "job" linked to "good, students, training;" "out" linked to "find, touch;" "who" linked to "people, someone, students;" "know" linked to "need, people;" "lack" linked to "knowledge, experience;" "need" linked to "know, more;" "time" linked to "not, spend;" "radio" linked to "most station, stations,

commercial;" "years" linked to "ago, industry;" "people" linked to "who, know;" "experience" linked to "no, not, lack, hands, hands-on."

Isolated word pairs included "far--removed, basic--skills, different--every."

A total of 57 attributes were derived from the words and network analysis of word pairs which had a frequency of 10 or more:

not (159)
broadcast(ing) (92)
many (72)
industry (68)
most (64)
experience (63)
know(ledge) (61)
business (57)
real (56)
work(ing) (56)
radio (54)
teach(ing) (49)
world (48)
more (45)
job (43)
need (41)
skills (40)
not real world (40)
changes(ing) (35)
good (34)
years (30)
field (29)
lack (27)
understand(ing) (29)
no (26)
equipment (25)
technology (22)
best (19)
basic (18)
market (18)
theory (18)
sales (17)
commercial (17)
news (17)
hands (16)
training (16)
little (15)
really (15)
taught (15)
never (14)
touch (14)
not many educators real enough (14)
many educators not (13)
too much (13)
not keep up (11)
people who (12)
practical (12)
talent (11)
markets (11)
production (11)
TV (10)
basics (10)
current (10)
hands-on (10)
prepare (10)
reality (10)
difficult (10)

Results of Open-Ended Question, Educator Sample.

The network cluster analysis of word pairs occurring at least five times in educators' responses to the question asking why educators are effective or ineffective at preparing students for entry-level positions resulted in a structure with a single group, representing a core-periphery, the most simple of network structures. The single group was relatively large, including the following words: "best, years, academic, training,

students, should, learn, want, jobs, work, educators, may, not, broadcasting, enough, any, field, professional, experience, industry, think, can, ineffective, preparation, effective, some, because, needed, writing, specific, technical, analytical, skills, teach, education, need, succeed, more, people, who, preparing, programs, job, hands-on, only, real, which, teaching, provide, basic, good, level, entry, positions, prepare, where, first, emphasis, too, spend, time, media, managers, most, schools, knowledge, world, little, touch, much, out, often, practical, no, thinking, critical, liberal, arts."

Peripheral tree nodes included "higher" linked to "education, ed;" "current" linked to "stay, industry;" "broadcast" linked to "industry, journalism;" "communication" linked to "skills, mass." Isolated word pairs were "keep--up, vary--tremendously, better--others, business--understanding."

The following 61 attributes emerged from the network analysis of word pairs and from the word frequencies, occurring at least 10 times:

not (168)
skills (131)
industry (125)
experience (112)
broadcast(ing) (77)
good (58)
knows(ledge) (56)
effective (54)
prepare(ing) (50)
internship(s) (39)
write(ing) (33)
equipment (32)
real (31)
business (31)
field (28)
thinking (27)
practical (26)
communication (26)
know (25)
basic (25)
hands-on (25)
technical (25)
Not many media
educators think students
(24) need skills (12)
difficult (21)
production (21)
educators preparing
students with skills (21)
too many educators (21)
journalism (20)
real world (19)
little practical
experience (19)
little professional
experience (19)
ability (19)
research (19)
not many or enough
students (18)
think educators (18)
critical (18)
learning (18)
teaching thinking skills
(17)
current (17)
technology (17)
understanding (17)
prepare students (16)
too many students (16)
too much (16)

liberal arts (15)
critical thinking skills (15)
news (15)
effectiveness (15)
basic skills (14)
teach students needed skills (14)
little hands-on experience (12)
provide students (12)
effective students (11)
try (11)
hard (11)
basics (11)
market (11)
theory (11)
practice (11)
effectively (11)
ineffective (11)
opportunities (11)

Qualitative Analysis: Exact Matches

Attributes extracted from broadcasters' answers were compared to those extracted from educators' answers to find exact matches, ignoring differences in relative frequencies. Of the 57 broadcaster attributes 32 were matched in broadcaster responses, for an exact match rate of 56%. Exact match words and phrases included "not, broadcasting, industry, experience, knowledge, business, real, teaching, world, need, skills, real world, good, field, understanding, equipment, technology, basic, market, theory, news, little, too much, practical, markets, production, basics, current, hands-on, prepare, and difficult."

Comparison of Results of Open-Ended Question: Z-Tests on Word Pairs.

Z-tests showed that broadcasters used the following word pairs significantly more than did educators:

hands on (4.74)
real world (4.64)
the business (3.43)
lack of (3.28)
in broadcasting (2.59)
keep up (2.59)
to learn (2.42)
the field (2.22)

Educators used these word pairs significantly more than did broadcasters:

preparing students (-3.02)
the classroom (-2.93)
the skills (-2.84)
professional experience (-2.84)
practical experience (-2.84)
liberal arts (-2.84)
thinking skills (-2.64)
to teach (-2.10)
the students (-1.98)

Comparison of Results of Open-Ended Question: Z-Tests on Individual Words.

Broadcasters used these words significantly more frequently than did educators:

radio (7.67)
sales (5.19)
station (5.08)
hands (5.04)
business (5.03)
real (4.92)
worked (4.67)
stations (4.65)
markets (4.17)
money (4.17)
talent (4.17)
know (3.78)
changes (3.72)
not (3.71)
small (3.53)
commercial (3.47)
changing (3.42)
people (3.59)
years (3.24)
broadcasting (3.13)
lack (2.94)
broadcast (2.82)
world (2.76)
learn (2.59)
market (2.58)
theory (2.58)
done (2.42)
understanding (2.40)
need (2.31)
technology (2.27)
out (2.18)
taught (1.99)
never (1.99)
employee (1.96)

Here are words which educators used significantly more frequently:

students (-5.02)
professional (-4.97)
effective (-4.97)
provide (-4.21)
thinking (-4.13)
academic (-4.13)
skills (-4.13)
programs (-4.10)
internships (-3.90)
faculty (-3.90)
university (-3.81)
think (-3.74)
preparation (-3,73)
liberal (-3.56)
journalism (-3.56)
research (-3.47)
ability (-3.47)
critical (-3.37)
specific (-3.08)
internship (-3.08)
higher (-3.08)
effectiveness (-3.08)
arts (-3.08)
others (-2.97)
course (-2.97)
classes (-2.97)
value (-2.87)
sometimes (-2.87)
skill (-2.87)
necessary (-2.87)
great (-2.87)
succeed (-2.75)
professional (-2.75)
offer (-2.75)
information (-2.75)
entry-level (-2.75)
broad (-2.75)
write (-2.64)
practice (-2.64)

ineffective (-2.64)
hiring (-2.64)
employer (-2.64)
effectively (-2.64)
communication (-2.58)
theoretical (-2.51)
sense (-2.51)
responsibility (2.51)
require (2.51)
probably (-2.51)
place (-2.51)
overall (-2.51)
creative (-2.51)
preparing (-2.48)
program (-2.37)
technical (-2.21)
other (-2.16)

(RQ 6) How effective do media managers and media educators think educators are at preparing students for promotion beyond entry level positions and why, and how do these groups compare in such perceptions?

All respondents were presented with a seven-point Likert-type scale with which to respond to the question, "How effective do you think media educators are at preparing students for promotion beyond entry-level positions?". As above, responses ranged from "very effective" (value = 7) to "very ineffective" (value = 1), with a value of 4 indicating educators were neither effective nor ineffective in this regard. Following this, both groups were presented with an open-ended question asking why educators were perceived to have that degree of effectiveness or ineffectiveness. In this section, the results of the closed-ended question will be presented first, followed by the results of the open-ended question for the broadcasters and then the educators. Finally, the open-ended responses of these two groups will be compared.

Responses to Closed-Ended Question.

Broadcasters evaluated educators' performance in this dimension fairly negatively (Mean = 3.24, S.D. = 1.43), while educators rated themselves as being neither effective nor ineffective (Mean = 4.11, S.D. = 1.40).

An independent samples t-test indicated this difference is statistically significant (t = -7.51, df = 594, Prob = .0000, pooled variance). Thus, while neither group evaluates educators' effectiveness in preparing students for promotion beyond entry-level positions positively, the broadcasters perceived educators' performance as significantly less effective than do educators.

Responses to Open-Ended Question.

Relatively few broadcasters answered this question, resulting in insufficient data for network cluster analysis. Based on the word and pair frequencies the following 23 attributes were extracted:

broadcast(ing) (52)
not (46)
radio (44)
work (30)
business (28)
entry level (27)
good (19)
news (19)
experience (18)
industry (15)
sales (14)
no (13)
time (13)
real (11)
great (11)
skills (11)
communications (11)
air (10)
know (10)
think (10)
career (10)
schools (10)
different (10)

Just as with broadcasters, relatively few educators answered this question, or they wrote relatively short responses. The network cluster analysis was not possible because of insufficient data. Based on frequency counts for words and pairs, however, the following 20 attributes were extracted, based on being stated at least 11 times.

not (73)
broadcast(ing) (73)
think (35)
industry (32)
communication (29)
experience (28)
journalism (25)
know (21)
no (20)

skills (19)
good (18)
results (18)
professional (16)
training (15)
production (13)
work (12)
liberal arts (12)
important (12)
jobs (11)
management (11)

Qualitative Analysis: Exact Matches.

For this question, as for the previous ones, we did a manual comparison of the attribute lists for the two samples, identifying exact word and phrase matches without regard for relative frequency. In this case of the broadcaster' 23 attributes there were matches for 11, indicating a 48% overlap with educators. Exact matches occurred for broadcast(ing), not, work, good, experience, industry, no, skills, communication, know, and think.

Comparison of Results of Open-Ended Question: Z-Tests on Word Pairs.

Broadcasters used only one word pair significantly more frequently than did educators when responding to the question "How effective do you think media educators are at preparing students for promotion beyond entry-level positions?":

entry-level (Z = 4.41).

Educators used these word pairs significantly more frequently than did broadcasters in response to the question:

liberal arts (-2.81)	I am (-2.58)	does not (-2.56)
I do ((-2.81)	want to (-2.58)	

Comparison of Results of Open-Ended Question: Z-Tests on Individual Words.

Broadcasters used the following words significantly more frequently than did educators in response to the question "How effective do you think media educators are at preparing students for promotion beyond entry-level positions?":

people (5.40)
radio (5.35)
sales (4.11)
business (3.91
real (3.64)
level (3.60)
air (3.47)
career (3.47)
schools (3.47)
work (3.40)
entry (3.38)
station (2.92)
news (2.61)
can (2.50)
most (2.27)

Educators used the following words significantly more frequently than did broadcasters in response to the question about educators' effectiveness at preparing students for promotion to positions beyond the entry level:

media (-5.30)
communication (-4.91)
journalism (-4.56)
department (-4.47)
teaching (-3.98)
courses (-3.87)
majors (-3.76)
training (-3.53)
study (-3.41)
public (-3.41)
arts (-3.41)
production (-3.29)
liberal (-3.16)
think (-3.13)
offer (-3.02)
management (-3.02)
jobs (-3.02)
course (-3.02)
students (-2.97)
university (-2.88)
professional (-2.88)
preparing (-2.88)
internships (-2.88)
faculty (-2.88)
area (-2.88)
teach (-2.58)
school (-2.03)
results (-2.01)

Discussion and Conclusions

As we examine and interpret the findings of this research it is useful to consider what is common to both broadcasters' and educators' views, what is different, and what implications these patterns have for communication between broadcasters and educators, educators and students, and broadcasters and students..

First, let's consider the overall degree of overlap between broadcasters' and educators' responses to the four main questions focused on in the survey, each of which is addressed from the perspectives of broadcasters and educators: 1) what are broadcasters looking for in hiring entry-level personnel, 2) what do broadcasters think is important for promotion beyond the entry

level, and how effective or ineffective are educators in preparing students for 3) entry-level positions, and for 4) promotion beyond the entry level. Overall, the qualitative exact match analysis of attributes, without regard for frequencies above the lower threshold showed an average of 59% of matching of educators' responses to broadcasters'. The highest overlap is for the question of what broadcasters' are looking for in promotion beyond entry-level positions, at 67%. Next was an overlap of 63% for the question about what broadcasters' were looking for in hiring entry-level personnel. This was followed by a 56% overlap for evaluations of how well educators were doing in preparing students for entry level positions, and 48% in how well they were preparing them for promotion beyond the entry level. An overlap close to 60% leaves much room for discussion about the similarities and differences in the perceptions of the two groups. Moreover the examination of Z-test differences in relative frequencies focuses our attention more precisely on areas in which, although there is overlap, it is marginal.

Interpretations of Similarities and Differences in What Employers Look for in Entry-Level Candidates

Based on our qualitative analysis of responses to the question asking what broadcasters are looking for in entry-level personnel, we find the following overlapping attributes: Interested, Enthusiasm, Communication skills, Willingness to learn, News, Understanding, Experience, Writing skills, Sales, Good basic skills, Strong work ethic, Good computer skills, Willingness to work, Team player, Common sense, Positive attitude, and Dependability. Under the shared Communication skills category, broadcasters had one unique attribute: Ability to read. Educators had several additional attributes which could be mapped into this concept: Communicate, Oral,

Interpersonal, and Speak(ing). Under the shared category of Experience, educators had the additional attribute of Internships.

Some of these areas are ones over which educators can have some significant influence, such as teaching about communication skills, news, and sales; providing experience; developing writing skills, basic skills, and good computer skills. Other areas are personality attributes of individuals over which educators have minimal influence given that the personality traits have been ingrained earlier in life: interest, enthusiasm, willingness to learn, being a team player, dependable, having common sense, a positive attitude.

From the closed-ended questions about certain courses offered by the respondents' departments, we observe that only about 24% of the departments teach a course in sales. Given the importance which many broadcasters place on sales, it would be advisable for more teaching about sales in the classroom. Moreover, across the curriculum, courses can provide opportunities to engage in oral reading activities, work on group projects and thus improve team player skills, and write extensively -- not just in designated writing courses. Internships can be required or recommended for students to gain some of the experience for which broadcasters are looking. Nevertheless, it is important to note the relatively high use of the term "internships" by educators coupled with the lack of the use of the term by broadcasters. A question arises as to how broadcasters view internships. The fact that they were mentioned one tenth as much by the latter raises questions as to whether broadcasters think of internships as relevant and important experience.

Two areas in broadcasters' responses have no direct match in educators' responses: **"performance,"** including the attributes of talent, voice, and appearance, and **"personality,"** including the attributes of desire, energy, intelligence, attitude, personality, and potential.

Educators also have some unique clusters of attributes for which there is no exact match with broadcasters. **"Cognitive"** includes the attributes of broad, liberal, current, critical, thinking, question(s), and knowledge. **"Personality"** attributes different from the ones cited by broadcasters are: initiative, flexible, creativity, professional, quality, and quickly. **"Production"** includes production, technical, equipment, technology. **"News skills"** includes reporting and editing. **"Industry"** includes broadcasting, industry, training, and **"contingency"** is marked by the comment, depends.

When we evaluate these differences we again see a number of personality variables that are beyond educators' control. Perhaps it would be useful for educators to screen those wanting to select their major by developing some assessment methods. For departments which need large numbers of students for political reasons within their institutions, such an idea would not receive much support. Yet, there are departments wishing to reduce the number of majors and who are supported by higher-level administrators in doing so. The personality areas we have identified here could be the basis for not only reducing numbers of students but increasing the quality of students on personality attributes that employers find desirable. Still, for those educators for whom enrollment restrictions are not of interest, they can still make use of the personality findings of this study to inform students about what broadcasters are actually looking for in personal attributes, so that the students who have these traits can be sure to prepare their job seeking communication to draw appropriate attention to them.

We also see that educators are concerned with some conceptual skills that broadcasters make no mention of: "critical thinking, flexibility, creativity, and liberal arts." This difference is cause for concern because for many educators these attributes are important to the way they justify their existence as departments in universities which may not give much academic

this imbalance prior to design and fielding of the instrument, so we did not build into the questionnaire for educators direct questions about their focus on radio versus other media. We did, however, conduct separate t-tests for within the broadcaster radio and television respondents on the educator effectiveness items and found that the differences between radio and television respondents were not significant either on the entry-level closed-ended effectiveness rating or on the rating for preparation for promotion beyond entry-level.

Furthermore, we attempted to restrict the broadcaster sample to medium and small markets given the assumption that there are more entry-level positions available in those size markets than the top ten markets. The question arises as to how much of an effect this market size restriction has on the results. Fortunately, 10% of the sample rated themselves as from a large market. We were therefore able to run a series of t-tests comparing large market respondents to those in medium and small markets on their ratings of educator effectiveness on entry-level preparation as well as on preparation for promotion beyond entry level. Results showed that large market broadcasters rated educators significantly lower in effectiveness in preparing students for promotion beyond entry-level than did broadcasters in small markets ($t=2.83$, $p < .007$, $df=24$), and large market broadcasters gave least effective ratings to educators on preparing students for promotion beyond entry level ($t=2.78$, $p < .009$, $df=24$). There were no significant differences on ratings for entry-level positions in comparisons of any of the market sizes.

Given our sampling procedures with educators, we were not able to restrict market size in the same manner as we did for broadcasters, so approximately one third of the educator sample identifies itself as being from a large market. We could have excluded these respondents from the analysis and increased sample size to result in a profile more similar to that for broadcasters,

credibility to what they perceive as the vocational aspects of many media-oriented courses. Broadcasters appear to be focused on what people do on the job and less on their critical or creative thinking.

Another area of concern is the higher relative importance that the educators attach to production training compared to broadcasters, who in other forums have expressed the notion that they would rather teach the production skills on the job and have the educators focus more on basic skills. Some educators appear to place more emphasis than is necessary on developing specialized courses tailored to different media areas, consistent with the expressed attitude that the skills for entry-level positions "depend," (probably on the type of media organization, the specific position, the market, etc). Perhaps some of this contingency orientation derives from the institutional dynamics in education associated with the number of majors, class sizes, and the resultant need to offer enough different courses to fit the diverse interests of the student population. In the closed-ended responses to the question about number of majors, the modal number was between 101 and 300 majors. On the other hand some of this diversification of perceptions about entry-level positions may be attributable to the fact that more educators were from large markets than were broadcasters, the latter of which we attempted to restrict to medium and small markets. Only 9% of the broadcasters were from large markets, compared to 32% of educators. In large markets the positions available may be based on a more highly specialized diversification of labor than in small markets in which entry-level employees may be called on to do a wider variety of tasks.

The quantitative analysis revealed differences in relative frequencies of words and word pairs, indicating that broadcasters place significantly more weight on computer skills than do educators. Computer skills (word processing, spreadsheets, etc) is as technical as broadcasters

get, while educators focus on technical and production skills. This is a notable mismatch between the two sampled groups. Teaching computer skills is probably not something that most educators would be able to justify as occurring in stand-alone courses. Rather, educators would be better to integrate use of computers into existing courses in the curriculum.

Another quantitative difference between educators and broadcasters is the relatively higher attention that educators place on writing skills. While both groups mentioned writing skills as important, there was a significantly greater relative frequency of mention of writing skills made by educators. It is difficult to interpret this finding. On the one hand, broadcasters may conceptualize "basic skills" as including writing skills and therefore do not mention writing per se as much. On the other hand, it may be the case that radio stations, 75% of the sample, do not have as much need for entry-level employees to write, but rather to read on the air, as some mentioned. To suggest to educators, however, that they reduce their attention to writing would be heretical in the higher education environment. It is a well entrenched belief among educators across disciplines that students need to improve their writing skills.

Interpretations of Similarities and Differences in What is Necessary for Promotion Beyond Entry Level.

Based on our qualitative matching, there was an overlap of 67% between attributes mentioned by broadcasters and by educators, the highest of any question. Matching attributes included: able(ity)(ities), skills, willingness, job, good, learn(ing), experience, desire, business, talent, knowledge, news, initiative, demonstrated, performance, commitment, and understanding. One might have expected higher agreement on entry-level than promotion criteria, but such was not the case.

Adding quantitative Z-test comparisons to the qualitative assessment, and considering word pair differences, we observed that broadcasters emphasized more than did educators attributes similar to those mentioned for entry-level positions: a willingness and desire to do good work, having a strong work ethic, a willingness to learn, and being a team player.

Educators, on the other hand commented more on the organization, the industry, and communication skills, and characterized the work required as involving long hours. They did not point to personal qualities of the individuals. Needing to spend long hours at work would presumably be best accomplished by someone with a strong work ethic and willingness to work. Broadcasters appear to present this matter more straightforwardly. Educators can tell students the specific language that broadcasters use, and how similar it is for their descriptions of both entry-level positions and those beyond. This may be more helpful than simply saying that long hours are required.

Noteworthy again is the higher usage of the word "writing" by educators. The lower use of this term by broadcasters may be because they value writing less, which is consistent with the lower mention of writing in the responses to the first question about entry-level skills.

Again, as with the first question about entry-level positions, educators were significantly more likely to use the word "depends." Judging from the commonality of responses from broadcasters it appears that educators may make too many distinctions of differences in what is needed for entry-level positions in different areas of media management. This "depends" orientation may be associated with educators' more frequent use of terms about technical skills and production, areas virtually absent from broadcasters comments, who want more basic skills treated instead. So, the observations of similarities and differences on perceptions about promotion are consistent with those about entry-level positions, although on several personality

variables educators are more consistent with broadcasters than they were on the entry-level question.

Interpretation of Similarities and Differences in Why educators have that degree of effectiveness at preparing students for entry-level positions.

In the qualitative analysis, exact match words and phrases included: not, broadcasting, industry, experience, knowledge, business, real, teaching, world, need, skills, real world, good, field, understanding, equipment, technology, basic, market, theory, news, little, too much, practical, markets, production, basics, current, hands-on, prepare, and difficult.

Both the closed-ended question about educators' effectiveness in preparing students for entry-level positions and the responses to the open-ended question show that broadcasters are less likely than educators to see educators as effective in preparing students. Broadcasters comment that educators do not have enough hands-on experience of the real world, or the business of broadcasting. They note that many educators either have a lack of knowledge of the field, or fail to keep up with and learn about changes in it. This is consistent with a statistically significant lower rating that broadcasters gave to the effectiveness of educators in preparing students for entry-level and beyond entry-level positions. This perception is corroborated by the reported average of 16 years of experience by broadcast respondents compared to 8 years for educators, less than half the amount.

On the other hand, educators comment more on their preparation of students by teaching them in the classroom the practical skills they need, and providing them with professional experience. Again, as with their responses to the first question about what broadcasters are looking for in employees, educators are more likely to mention critical thinking skills and the

liberal arts. Educators think they are doing quite well, significantly better than broadcasters think they do.

The quantitative comparison of relative frequencies of words and pairs add more detail to the picture. It is noteworthy that the overall tone of broadcasters' responses to the question asking why educators are effective or ineffective at preparing students for entry-level positions was negative. Aside from basic function words like prepositions, articles, pronouns, and simple verbs of being, the most frequently used word was the negative word, "not." Its most frequent word partners were the words "real, world." One could characterize broadcasters as criticizing educators for not focusing enough on the real word, and in many cases for not having enough real world experience on which to base their teaching. Another aspect of this "real world" phrase was the sentiment that not enough educators were keeping up with changes in the broadcasting industry. From that departure point the responses become quite diverse in commenting on other aspects of educators and education. Because of this diversity it is not prudent to draw further generalizations.

Educators also take a negative tone in answering this question. Some, however, indicate that they are teaching the right things to students. Others offer reasons why they are not teaching more of what they know they should be. Answers appear to divide into these two camps.

Interpretation of Similarities and Differences Between Broadcasters and Educators on Preparation for Promotion

Based on qualitative analysis, exact matches occurred for: broadcast(ing), not, work, good, experience, industry, no, skills, communication, know, and think. In the quantitative comparison of word pairs and words, broadcasters used only one word pair significantly more:

"entry-level." Educators used the following pairs more: "liberal arts, I do, I am, want to, does not."

In the quantitative analysis of individual words, broadcasters tend to focus within the station and do not attend much to the educators: "people, radio, sales, business, real, entry, level, air, career, work, station, news." Educators appear to focus more on differences in the discipline: "media, communication, journalism, and also as they do in the other questions on "liberal arts." Other words appearing significantly more often when educators discussed their own perceived higher effectiveness are: "university, department, faculty, teaching, teach, offer, preparing, students, courses, course, majors, training, production, study, school, area." Educators also focus on "professional, management, results, internships, and jobs."

Broadcasters' frequent statement of "entry-level" could be interpreted as possibly reflecting an attitude that educators should not be concerned with teaching students with their promotion in mind. Judging from responses to earlier questions, broadcasters are most concerned with personality characteristics and on the job tasks. Consistent with this notion is the possibility that broadcasters feel promotion is almost fully in the domain of the station environment, not in the education environment. Moreover, from broadcasters' comments about what they look at in promotion decisions, such decisions are not based on attributes that educators have much control over, and broadcasters do not use any words referring to the educational environment significantly more often. This may indicate the question lacks relevance to broadcasters, which could account for the lower response rate to this question by broadcasters.

Educators, on the other hand, repeat some of their comments from the first question about what broadcasters look for in hiring entry-level personnel. Most notable is the concept of "liberal

arts," something not mentioned by broadcasters in responses to any question. Additionally, educators mention their departmental and coursework attributes quite often. Again, as with responses to previous questions, educators use the word "production," and the word "internships" significantly more than do broadcasters.

Limitations of the Study

This study has several important limitations:

As is generally the case with self-administered surveys, there is the problem of response rate. The 21% response rate for broadcasters and the 28% response rate for educators means that the samples suffer from a volunteer response bias. Studies have shown the volunteers often have different perceptions than non-volunteers. Unfortunately, we do not know on what criteria and how much non-respondents may differ from respondents in our study. Nevertheless, it is encouraging the response rates are similar from the two populations. This suggests that the volunteer bias may be similar in the two groups, although we cannot tell from the design to what extent this is the case. Moreover, the responses, based on our qualitative matching, show an overlap averaging 59%. This is supportive of the notion that sampling error may be similar for both groups. Furthermore, having sample sizes above 300 in both groups further reduces sampling error because as samples become larger sampling error decreases. Still, however, the relatively low response rates argues against generalizing without caution these results to the two populations.

Another sampling issue of note is the preponderance of radio station respondents within the broadcaster sample, at 75%. Sample sizes were not sufficient to break the broadcaster samples into radio and TV subgroups for analysis of open-ended questions. We did not expect

but we felt that the effort was not justified given the limited budget of the study and the up front uncertainty as to whether market size makes a substantial difference in responses. Given the sample size we did obtain for educators it was not sufficiently large to breakdown open-ended responses by market size. Nevertheless, we conducted separate t-tests on the closed-ended questions about educator effectiveness by market size levels and found that educators in large markets were no different from those in small markets. The large market educators, however, did rate themselves as less effective in preparing for entry-level positions than did educators in medium-sized markets ($t=2.37$, $p < .019$, $df=95$).

Also regarding the educator sample, the sampling frame we used was necessarily more diverse than that for the broadcasters, because we used membership lists from professional associations that draw members from a wide range of institutions. A more diverse educator sample from more diverse institutional environments than are broadcasters appears to have resulted.

In conclusion, the limitations of this study are typical of those using self-administered questionnaires. Analysis of sample characteristics and response patterns gives some confidence that useful comparisons of the samples can be made. Nevertheless, results cannot be generalized to the respective populations as they would if we had drawn true random samples and had a response rate approximately four times higher. Recommendations, therefore, reflect these realities through calling for increased communication between broadcasters and educators focused around specific issues found in this study.

Recommendations

The findings of this study call for increased communication between broadcasters and educators on a number of important issues:

Writing

Given that educators' answers place more emphasis on writing skills than do broadcasters , it is important that this difference be considered further, to determine whether the difference is real or an artifact of different styles of communication about writing. For example, we cannot tell whether broadcasters include writing by implication when they talk about "good skills" and "basic skills." If the difference is real, then it is important for educators to know why writing skills are not as important to broadcasters as educators think they are, so that they can evaluate this in curriculum decisions.

Production

Educators' greater attention to production skills than broadcasters' raises questions similar to those about writing. Are broadcasters including production skills in their conceptions of "basic skills" and "good skills" or are these real differences? Some evidence from some recent panel discussions at conferences suggests that the difference is more real than due to semantic variation. Broadcasters appear more willing than educators think to have entry-level personnel learn production skills on the job, using the specific equipment available in the station. Increased communication between broadcasters and educators on this issue can resolve whether

this difference is real and if so, educators can factor this into their curriculum decisions. For some educational institutions it would be a large cost savings not to have to upgrade equipment.

Internships

While broadcasters talk about the importance of experience in evaluating prospects for entry-level positions, they have a low rate of mentioning "internships." In contrast, educators make frequent reference to "internships" in their comments. Is this difference merely one of semantic framing or do broadcasters actually have low valuations of internship experience and instead look at experience in previous full time broadcast positions? If the former is the case, educators and students can rest assured that including internships in the curriculum is a solid way to give students the kind of experience for which employers are looking. If the latter is the case, then educators and students need to wrestle with a tough "Catch-22" situation. If some broadcasters need persuasion as to how internships foster relevant experience for students – experience which translates to the entry-level job environment -- then this increased communication will enable educators to tailor more effective persuasive messages about the subject for broadcasters.

Liberal Arts Education

The greater mention by educators than by broadcasters of a "liberal arts" education as important to both entry-level and positions beyond suggests that educators need to obtain more in-depth information about how broadcasters feel about liberal arts education, and what kinds of broadcasters may be in agreement. Some educators may be motivated to attempt more

articulation of their perspectives to persuade more broadcasters about the value of a liberal arts education in the workplace.

Critical Thinking

Likewise, more communication is called for between broadcasters and educators about the latter's greater attention to "critical thinking" skills. Broadcasters may include this in their conceptualization of "good basic skills" and not mention it specifically. On the other hand, some broadcasters may think of critical thinking as irrelevant to how they want entry-level and higher personnel to think on the job. Knowing more about these conceptions can help educators evaluate their curriculum and how it is presented to the media industry.

Creativity

Another concept mentioned more by educators that merits increased communication with broadcasters is "creativity." In the broadcasters' minds is this generally thought of as part of "good basic skills" or is considered irrelevant to entry-level positions and promotion beyond entry level? Again, the benefits to educators of this communication and clarification are similar to those about the other attributes discussed here.

Work Ethic and Personality

Educators may wish to work with broadcasters to develop specific assessment instruments to measures students' work ethic and other personality characteristics deemed important by broadcasters. With the right tools, educators can use this information in their work with student selection and counseling.

Faculty Development

Given broadcasters' perceptions that educators do not have enough "real world" experience, or enough recent experience, it would be desirable to have more opportunities for educators to gain such experience through programs such as paid faculty summer internships in broadcasting stations. While some programs provide good access to stations and decision makers (most notably those sponsored by the National Association of Television Programming Executives, the Academy of Television Arts and Sciences, and the International Radio and Television Society), discussions with organizations in the broadcast industry can work out the most effective ways to create, manage, and fund additional (and more long-term) faculty development opportunities.

Department Advisory Committees

One way to increase communication between broadcasters and educators is for departments of higher education to form advisory committees including broadcasters to examine departments' curricula and make recommendations for improvements. This advisory committee could also be useful to the department in arranging for guest speakers from the industry. Moreover, many of the questions raised in the various recommendations we have made could be addressed at the local level and both broadcasters and educators would benefit from having closer ties.

Whether we creep toward the new millennium with trepidation or stride forward with purpose, the fact remains that the future is rushing to meet us. Broadcast educators are molding tomorrow's electronic media professionals – and tomorrow is certain to present these individuals

with not only predictable challenges and opportunities but also those we haven't even dreamed of. This study deals with the current views of broadcasters and educators, yet actions taken based on the findings and recommendations of this research can help shape a better future for students, broadcasters, and educators, three groups that are the main stakeholders in this evaluation research.

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