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EXTENT OF CONGRUENCE BETWEEN STUDENT PERCEPTION AND MEDIA REPRESENTATIONS OF QUALITY OF HIGHER EDUCATION INSTITUTIONS

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Table of Contents

List of Tables

List of Appendices

Abstract

This study examines the degree of congruence between students' use of indicators in judging university quality and media use of those indicators. Through a student survey and content analysis of the media, each one's treatment of universities is examined. The study finds that students use items related to reputation or impact when determining university quality. It finds that the media mentions reputation the most when describing university quality. Students and the media agree on the importance of reputation in determining university quality, but then agree on little else. Many items student consider important are not mentioned much by the media. This study also finds a strong congruence between how students rank universities in terms of quality and how often the media mentions those universities. This would indicate a presence of agenda setting, which is the theory that the media sets the agenda of its audience. However, an additional test in this study finds that varying levels of media exposure have little congruence with how students rank information or use items to judge university quality. This study, then, questions how much the media messages are related to student decisions about quality.

Chapter One

The perceptions of quality and reputation vary from person to person. Applying those terms to higher education is elusive. However, researchers, universities, students and mass media attempt it for different reasons. Researchers and university officials assess institutions to determine if universities are fulfilling their "missions." Students do it in order to determine which universities are "the best" according to their perceptions of quality. Mass media outlets, such as *U.S. News & World Report*, do it in order to create rankings and maybe sell magazines by fulfilling a societal craving for these rankings. Earlier studies and documents show that people use different ways to perceive quality and reputation, that reputation is important for many stakeholders of universities, and that mass media has power to set the public agenda. The role of each of these three in shaping students' perceptions of quality has gained importance for economic, social and political reasons.

Problem Statement

Many higher education studies about student choice and student retention focus on the term "fit." When students' interests, goals and social desires "fit" a university's interests, goals and social offerings, students are happy with their choices and are much more likely to persist to earn a degree. Some studies delve into the process by which this "fit" occurs. Those studies have a similar conclusion – a student is happy when a university he or she has chosen to attend is considered to possess high quality. However, this brings about a broader issue of how a student perceives quality. That creates the question of where students get information in order to construct a perception about university quality.

When it comes to choosing a university, many studies point to the media as a factor in the student's decision (McDonough, 1998). One can conclude that when a student reads media reports on a university, he or she uses that information to perceive the university's quality. Many problems arise because the university, the media and the student use different methods, desire different information and have different agendas related to quality. A list of these problems follows:

1. A lack of fit. If a student makes a decision using information that does not accurately reflect what he or she believes to be indicators of quality, then that student may drop out of that university.
2. A waste of resources. Universities may spend tens of thousands of dollars on web sites and promotional materials. However, if the media stick to their own standards and rankings systems to represent quality, no amount of publicity generated by the university will change the information that ends up being transmitted to the student.
3. Too much media power. Making decisions based largely or solely on information from the media allows the media to be the chief determinant of quality. No one entity should have that much power over individual decisions.

Competition for students, acceptance among peers and competition for waning public and private funding have become a way of life for higher education institutions. Many institutions believe they can remain competitive if they attract the most students, or the most students of higher quality.

Purpose

The purpose of this study was fivefold:

1. to explain the processes by which college students evaluate the quality of higher education institutions.
2. to determine if an "agenda setting" function of the media is related to student rankings of universities and explain its correlation to the students' actions.
3. to examine the relationship between mass media representations of quality and students' perceptions of quality of higher education institutions. It sought the level of congruence between how students view quality and how media represents quality.
4. to determine whether or not the media provides information students say they use to construct perceptions of quality.
5. to determine if students' criteria used in constructing perceptions about higher education quality are used by print media in covering higher education and if that is related to how students ultimately judge the institutions' quality.

If the media do not cover the criteria important to students, what information is provided instead, and do student judgments reflect that they used someone else's criteria to perceive quality of institutions? Specifically, this study explains the role of media in representations of higher education, and what relation, if any, it has with students in their perception of institutions' quality.

Research Questions

The research questions were:

1. What criteria do students use in their perceptions of the quality of higher education institutions?
2. In light of those criteria, how does the print media represent quality?
3. Is there congruence between what print media represents as quality and what students perceive as quality in higher education?
4. Relative to other sources of information, to what extent do students get their information from the media in relation to their perceptions of university quality?
5. Do coverage of higher education institutions and attention to media by students affect the way students perceive quality of higher education institutions?

Significance

With this study, a better understanding of student perception of quality is possible. While it is true that universal definition of quality is difficult to develop, it is equally problematic to determine the type of information that should be used to construct a perception about quality. Constructing a perception using imperfect or flawed information leads to a flawed perception. Students can be exposed to information that is useful to and desired by them so they can construct informed perceptions of quality. But the media must play a part in getting that information to the student.

This study was needed in order to determine what information students want, what information they are getting from the mass media and how strong of a congruence the media has with their perception of universities. If students are not getting the needed or desired information, then they are making decisions based on criteria set by the media.

This can result in students choosing universities for reasons that are set by an outside source. This results in disillusioned students. Also, universities that spend thousands of dollars on promotional materials may be wasting money if the media ignores their messages. The media could be lagging on its promise to serve a public good in its representations of higher education. If media muddles the line between reputation and quality, becomes enamored with rankings of vastly different institutions and ignores the desires of its audience, it risks losing credibility with its audience.

What needs to be determined is if a discrepancy exists between what students want and what they get. If there is a discrepancy, the media is not doing its job of satisfying the public's "right to know." Instead, it is giving information that is not helpful to students or universities, and all three suffer the consequences.

This study explains how students perceive quality, and what information is available and used by the students in construction of their perceptions. Universities may use this study to determine the need of assembling and developing certain types of information that students use in perceptions of institutions. Universities may also see the need to get this information relayed to the students via mass media.

Media outlets may use this study to rethink the way they cover higher education. If the students want a certain type of information and are not receiving it, then the outlets are not doing their job. Since the beginning of the 20th century, media outlets have accepted a role to provide contribute to the "public good" and to fulfill the public's "right to know." An outlet is failing to do both if it reports on universities in ways that neither help nor inform the student.

Students may use results from this study to rethink the way they get information about a university. They may cast a more critical eye on reports and rankings from the media, especially if they know that the media is not giving them the information they desire. They may go to other sources of information in order to triangulate the information given out by the media.

Using knowledge gained from this study, researchers can turn attention to student perception when evaluating institution quality. Factoring in student perception of quality can enhance many earlier studies, such as Tinto's retention model. Many existing quality studies look at the outcome of a university, such as retention, knowledge gained, student satisfaction, and student placement. This study introduces quality measures at the beginning of a student's collegiate career.

Limitations

The study lacks generalizability. Students from three universities were surveyed for their analyses of 10 colleges and universities across the United States. While the results offer insights on how students perceive quality, this study involved a small number of students analyzing a few universities. No effort was made to conclude that all students think the same about all universities.

The answers from students who were surveyed may have been influenced by experiences in their college careers. Although they were in their first year in college when they filled out their surveys, they may have already altered their views about quality and reputation due to events in their short college careers. What they may have perceived as quality as high school seniors may have changed once they were on campus. For example, students, who as high school seniors did not care about whether a college

course had more than 50 students enrolled, may have changed their opinion during the first semester due to experiences they had in classes with more than 50 students. Their own experiences inside and outside the classroom may have changed the way they construct perceptions about universities.

Definitions

For this study, the term media represented the realm of print outlets such as newspapers and magazines, broadcast outlets such as television and radio, the internet and entertainment outlets such as motion pictures. A content analysis within this study used only part of the overall media. It involved large-circulation magazines and newspapers. For the purpose of this study, the term "media" was a singular term referring to the group of media outlets.

This study does not attempt to define quality. The simple definition of quality is "character with respect to excellence, fineness, etc., or grade of excellence" (Stein, 1966, p. 1175). However, quality is an individual term and not a physical characteristic. For example, physical characteristics of 35-pound white paper and 20-pound white paper are different without question. However, some people may disagree about the quality of the two different weights of paper. Many people will say the 35-pound white paper has better quality because it weighs more. However, some people may like lighter paper, and therefore consider the 20-pound white paper to have better quality. Higher education quality is thus even more difficult to define. Instead of the paper's sole difference of weight and limited attributes, universities have many differences and many attributes. For an object as multi-faceted as a university, quality cannot be defined "—you know what it is, yet you don't know what it is" (Pirsig, 1984, p. 112).

Instead of trying to define quality, this study focuses on two items related to but separate from actual quality. One item is student perception of quality. Perception is "the act or faculty of apprehending by means of the senses or of the mind; cognition; understanding" (Stein, 1966, p. 1069). Perception is individual and unique to a person's experience (Emerson, 1892). To perceive quality, people take information about an object and then filter that information through their own biases and experiences. Students perceive quality of an institution by taking imperfect information given to them about that institution and then making a judgment using the information they consider important. From a psychological standpoint, perception is the recognition and interpretation of sensory stimuli based chiefly on memory. Through perceiving, insight, intuition or knowledge is gained (Flexner, 1987). To obtain such knowledge, a person must have the capacity to perceive – a memory of an object or idea.

The other item related to quality that is measured in this study is media representations of quality. To represent is "to serve to express, designate, stand for, or denote, as a word, symbol, or the like does; symbolize" (Stein, 1966, p. 1217). The method in which the media reports on an object serves as a representation of that object. This method includes number of times the media mentions the object, context in which that object is mentioned, placement of mention of that object, and so on. The media representation of university quality is not actual quality. It is simply the method in which the media symbolizes quality through the way it reports on universities.

The study finds congruence between student answers to the survey and media representations of universities. Congruence is defined as "the quality of state of agreeing or corresponding" (Stein, 1966, p. 310). When this study finds congruence between

students' answers to surveys with media treatment of universities, one must remember that the study does not correlation one type of quality with another type of quality. Instead, the study compares student perceptions of quality with media representation of quality. It compares what student think is quality with what the media thinks is quality. Therefore, quality itself never enters the mix.

Assumptions

The assumptions in this study are that college freshmen have unique ideas of what they consider quality. It assumes that they have put some thought into why they think more highly of some institutions than others. It also assumes that they are media literate – that they are aware of media messages. It does not assume that college freshmen are critical of the media with respect to its tendency to simplify topics, aware of the criticism of rankings, or spend more than five minutes a day reading daily newspapers.

However, one can safely assume that the media has power and influence of opinions in today's society. One can also assume that college freshmen are subject to that power and influence in many topics, including higher education quality. One can assume that the media might not be representing higher education quality using the same criteria as freshmen do. Finally, one can assume that the media has the ability to influence the perception of college students on higher education institutions, even if the media and students use different criteria. Considering these assumptions, a study was needed to investigate both the media and student's process of constructing a perception.

Chapter Two

The primary function of media is to disseminate information to the public. In doing this, media takes on a gate-keeping role of deciding what is and what is not news, and the importance of a news event. The media also knows that the public spends less time reading or viewing media messages daily despite being exposed to more media messages. To adjust for this, journalists reduce complex news stories to "sound bites." Pages and pages of information are condensed to a few paragraphs for news reports. For instance, a Dallas Morning News reporter may take several reports on and interviews about standardized testing and reduce it to a 300-word story in order to make information easier to read and shorter. Some news reports are reduced to lists or rankings. Therefore, people seeking information to make decisions get news reports that are abridged and filtered through the eyes of gatekeepers.

Freshmen make decisions using the best available information. They either actively seek out information before making a decision, or they use what is given to them. For most decisions, media plays some part in giving them information on the choices. For example, young adults are told through media what to wear, what to eat, what music or movies to like, what to drink and what to say. The same can be said about decisions about college. The media, to varying extents, gives students information regarding specific institutions. The students then either use or ignore that information in their decision process. Some may use that information solely for their decision-making. For example, a young person who watches *Legally Blonde*, a motion picture about Harvard Law School, may conclude that Harvard is the best law school in the nation. This decision is made despite the fact that the young person has no personal experience

about Harvard, nor has any other information concerning Harvard or other law schools around the nation. However, students who judge universities in this manner only judge reputation, not quality.

The simplistic example above reflects the theory of agenda setting. Agenda setting is the theory that mass media sets the agenda for people with the amount of time or space it gives each topic or issue. Agenda setting is the theory that mass media determine "what we think about." For example, if the national media such as CNN and the *New York Times* reports on 1) drought, 2) hate crime, 3) breast cancer and 4) car crash, in that order, the agenda setting theory proposes that the public will rate those items the same way in terms of importance. If students rate an institution high because he or she has seen the institution's name in the media frequently, then agenda setting exists. Most researchers agree that agenda setting exists in varying degrees.

The likelihood for agenda setting is more possible in this era of media immersion. Media messages infiltrate every aspect of daily life. The more people become surrounded by and dependent on mass media, the stronger the agenda setting effect can get. If a person spends six hours a day watching television, 30 minutes reading the newspaper, two hours listening to the radio, 20 minutes talking to his co-workers and one hour talking to his family, the possibility for a strong media influence is high.

The media's tendency to "reduce stories to their headlines" poses a problem when representations of quality of an item. Quality is defined as a degree or grade of excellence (Flexner, 1987), but that is just one of many definitions. The very meaning and method of measurement of quality has caused countless debates. However, people still seek input on quality. The media, in response, provides easy-to-read rankings. However, this is done

before a person makes a decision or ranks one item above another. He or she does not get to perceive the quality of the available choices, and thus does not get to construct a perception about an item's attributes against standards of merit for the available choices and against the interests/needs of the decision-makers.

In the same manner, freshmen seek input on quality of higher education institutions. However, the same problem of defining and measuring quality exists. Researchers have struggled with methods to gauge quality in higher education, without much agreement. The media uses job placement, student satisfaction, student change, standardized test scores and grade point to measure quality of institutions. The media, such as *U.S. News & World Report*, also measures higher education quality through attributes such as student/faculty ratio, alumni giving and reputation among peers. If the media decides not to use information important to a student, then that student must accept the rankings of the media as a viable outside source of information. Previous researchers have studied the media, university quality and students' perceptions about universities.

Media

Media is a term to indicate a variety of mass communication, such as newspapers, magazines, radio, the internet, motion pictures or television (Flexner, 1987). In the information age, the media has become the central cultural force in society (Baran, 2002). Journalists serve a gatekeeping function on the amount of information that reaches the public. It is a rapidly changing business that has trouble gaining public trust due (Becker, Vlad, Huh, & Prine, 2001). Some of this may be due to the fact that a person does not need a degree, pass a test or get licensed in order to practice journalism.

Agenda Setting

Media studies show that media can be considered the fourth estate because of the power it has. In 1922, Walter Lippman suggested that the media was responsible for the "picture in our heads." This was the first American mention of the notion of agenda setting. The theory of agenda setting, according to Larson, proposes "the public agenda – or what kinds of things people discuss, think and worry about…is powerfully shaped and directed by what news media choose to publicize" (1986, p. 87). Several people agreed with Lippman, including Cohen (1963), who said that the media may not always be successful in telling people what to think, but it is usually successful in telling them what to think about. Therefore, the media may not be successful in dictating how people think about global warming, but it has the capacity to make people think about global warming. Lang and Lang (1966) said, "The mass media force attention to certain issues…they are constantly presenting objects, suggesting what individuals in the mass should think about, know about, have feelings about."

McCombs and Shaw performed the benchmark empirical test of agenda setting. They found that during the 1968 presidential election, a strong relationship existed between the emphasis placed on different campaign issues by the media and the judgments of voters regarding the importance of various campaign topics. They wrote,

> In choosing and displaying news, editors, newsroom staff, and broadcasters play an important part in shaping political reality. Readers learn not only about a given issue, but how much importance to attach to that issue from the amount of information in a news story and its position…The mass media may well determine the important issues – that

is, the media may set the "agenda" of the campaign (McCombs & Shaw, 1972, p. 176).

Many studies followed, most reaching the same conclusion (Tipton, Haney, & Baseheart, 1975; Patterson & McClure, 1976). Iyengar and Kinder experimented using network evening news shows and found that "American's views of their society and nation are powerfully shaped by the stories that appear on the evening news" (1987). The theoretical foundation of agenda setting and priming can be traced to concepts of priming in work on cognitive processing (Collins & Loftus, 1975; Tulving & Watkins, 1975). Through processing information, individuals develop memory traces (Tulving & Watkins, 1975) or activation tags (Collins & Loftus, 1975). This allows concepts or events to be "primed" — easier to recall in an individual's memory. Activation tags or memory traces, therefore, influence subsequent information processing (Salancik, 1974).

The agenda-setting power of the media extends past the amount of space devoted to a topic, or the number of times a topic is mentioned. Also important is the fact that there is great consistency between media sources across all media in the choice and type of coverage they give an issue or event. This consistency and repetition signal to people the importance of the topic (Baran, 2002). The number of times a university is mentioned in print media does not signal the extent of agenda setting potential, because other media sources may pick up on that and reinforce the image. For example, Harvard is mentioned often in the print media. That makes it easy to pick as an example of a university. Motion pictures, when faced with the task of picking a law school as a site for a movie, often pick Harvard Law School (*With Honors, Legally Blonde, Soul Man).*

Agenda setting studies usually involve a content analysis to define the media agenda and surveys to collect data on the audience agenda. The data from the two types of research are then correlated. About 10 articles a year about agenda setting show up in Communication Abstracts, most dealing with elections. A recent trend has been away from the political arena. Protess and McCombs (1991) summarized the studies, varying from history to advertising and foreign news to medical news. However, no studies have touched on agenda setting of universities' reputations.

Studies on Media Representations of Higher Education

Studies about media representations of universities have cast a critical eye on the practice of ranking. Researchers have found problem with the indicators used by *U.S. News*, its "predicted graduation rate," (Porter, 1999) and frequent changing of methodology (Klein, 1998). At the root of the criticism is the task – quantifying issues that are inherently tough to quantify, specifically a school's reputation. Even if reputation can be measured, it is only perceived quality. The magazine cannot possibly put numbers on quality of teaching and faculty research, critics say (Rasmussen, 2000), even though there have been attempts to do so. Researchers agree that college rankings are error-prone because of several factors. Kersten (2000) summed up the main problems with ranking data. First, it is virtually impossible to quantify the quality of education. There is no objective way to translate the complexities of a university into numerical scores, Second, what is important to one college and its students may be meaningless to another. The goals vary from institution to institution and from student to student. Universities devoted mainly to research cannot be equally compared to universities devoted to teaching.

Finally, entire institutions cannot have a single numerical score. The actions and processes of a university cannot be summed up in one number.

Definition of Quality

According to Smith and Edwards, it is impossible to measure quality directly since it is not a physical characteristic of an object (Edwards, 1968), but instead "must be judgmentally assessed by considering entity attributes that are more directly perceptible. Such assessments vary with the stakeholder involved and with the standard of merit being employed" (Smith, 1993, p. 235). Therefore, quality is measured indirectly by taking measurements of objects' attributes. "Though such measurements can serve as proxy or surrogate measures of quality, they are not measures of quality itself" (Anand, 1997, p. 195). But even though Smith said it could not be measured, Anand said it could be perceived. "Virtually anything can be assessed for quality, such assessments being made against accepted standards of merit or against the interests of relevant stakeholders" (1997, p. 195).

Researchers have seen a trend toward constant assessment of quality of higher education. Some point to political and economic pressures. Increasing tuition costs, dwindling funding for public institutions and a general trend toward performance assessment has created an environment in which universities cannot just say they are educating and researching. They are called on to prove it. "Higher education is no longer seen as a privilege but as a right," said Chaffee and Sherr (1992, p.1). The public then looks for ways to analyze their "right" to university learning. One way to analyze that "right" is to construct perceptions about university quality and rank universities based on those perceptions.

Quality of institutions can be perceived in many ways. Several quantitative instruments have been developed in this area. Researchers can perceive quality of entering undergraduates through the Cooperative Institutional Research Program, Freshman Class Profile Service through ACT, Student Descriptive Questionnaire or College Students Expectations Questionnaire. Enrolled undergraduates can be assessed through HERI's College Student Survey, National Survey of Student Engagement, or Student Satisfaction Inventory. Learning outcomes can be calculated through a Collegiate Assessment of Academic Proficiency, or Area Concentration Achievement Test. Other instruments measure alumni assessment, faculty quality, and institutional services (Borden and Owens, 2001). However, no universal definition has been created, nor has a theory of quality been created. Harvey (1995) identified five approaches to defining quality – exceptional (linked with excellence and elitism), perfection (consistency), fitness for purpose, value for money and transformation (empowerment of students). In perceiving quality of any institution, getting everybody to agree on one or a combination of these definitions is impossible. Quality is a relative concept that means different things to different stakeholders, whether it is students, employers, staff, government, funding agencies, accreditors and taxpayers (Harvey and Green, 1993).

Tan (1986) said a popular type of study that assesses university quality is the reputational study (this is also the type of study cited most by media). These studies use data from so-called experts in peer institutions to rate programs based on perceptions of quality. These types of studies date back to 1925 (Hughes, 1925) and deal mainly with graduate schools. Keniston (1959) determined the academic standing of the University of Pennsylvania by having administrators rate it and 24 peer institutions. Cartter (1966) and

Roose and Andersen (1970) conducted surveys of departments, but refrained from developing institutional rankings from these scores. Most studies that have followed have aggregated department scores to develop institutional rankings (Magoun, 1966; Petrowski, Brown, & Duffy, 1973; Webster, 1983).

Tan highlights the problem of ranking universities in terms of quality. Quality is an elusive concept (1986). Just like movies can be judged for quick-paced action, solid story line or superb acting, quality can be measured in several subjective ways. Tan said that the competitive nature of our culture feeds our obsession to rank things. However, "when we rank things, we are essentially implying that some kind of consistency exists in the perception of quality" (1986). Ranking studies on quality focus on outcomes, such as student placement, student satisfaction or students' test scores. The problem is that these outcomes are at the end of production, despite the fact that the overall quality of a university must be the concern of everyone who works there (Frazer, 1992). The assumption is that higher education is a "black box." These approaches do not review or assess the educational process and experience of pursuing knowledge (Barnett, 1994). These quality indicators should also include process variables. However, Barnett says that the educational process is so complex that quality cannot be captured using objective measures of numbers and scores. Beyond that, individual institutions have diversity of missions and methods of educating students. It becomes complicated when researchers and the media try to measure all the diverse institutions using the same yardstick. The researchers' premise is that a college's commitment to "true quality" revolves around the student's educational and personal development (Tam, 2002).

The studies of the effect of effect on students find that many changes occur during a person's college years. Feldman and Newcomb (1969) indicated that changes were toward liberalism, autonomy, self-confidence, independence and self-understanding, all non-cognitive. Obviously, these are tough to quantify and none of these are part of ranking studies or the rankings system of *U.S. News & World Report*.

When studies attempt to quantify quality, the intangibles that make up the "college experience" are discarded. For example, Chickering provided some valuable insights into the developmental and psychological changes of a student during college. These changes would be difficult to quantify from college to college and thus are left out of ranking studies. However, few people can argue that these changes are not an important part of a college career. Quality ranking studies also ignore measures of college impact on students. For example, four theorists stand out in terms of college impact. Not all mention quality of education in their studies, but their findings provide starting points for the discussion of assessment and what to assess — Vincent Tinto and his theory of student departure (1975); Alexander Austin and his CIRP database (1985); Ernest Pascarella's college impact model (1985) and Robert Pace and his college experience questionnaire (1987). Tinto's theory is that students' personal, family and academic skills are modified through the students' interactions with the academic and social systems of a university. The way a university integrates its students can be a standard of quality. Austin's work is related to Tinto's, but places the students at the center of the encounters with the institution. The students, then, choose how much the social and academic aspects of a university impact them. Pascarella's college impact model looks at the overall structural characteristics of an institution, plus the influences exerted on

students by other individuals – faculty members, fellow students, family and noncollege peers. All this interaction and socialization can create a positive environment, in which the student is successfully integrated, or a negative environment, in which the student (as Tinto also predicts) is not integrated and is at a high risk of dropping out. Pace's questionnaire focuses on perceived needs of students and if an institution addresses those needs. Yet, little mention of these quality studies shows up in rankings of college quality.

Across-the-board rankings of these universities assume they all have the same goal (Tan, 1986). Besides the reputational studies, some researchers have attempted comparing universities using objective indicators (such as student outcomes as mentioned above) or quantitative correlations (Tan, 1986). These comparisons and correlations all assume that universities have the same goals and methods of attaining those goals, which can be problematic. Does the high percentage of student job placement for Yale University make it a better university than the University of North Dakota, or should one consider the location, reputation, programs of study and goals of both universities? One researcher said indicators and rankingsshould really not be used for regional schools, since they are so diverse in their missions and demographics (Schmitz, 1991).The most successful objective indicator studies focused on similar graduate schools (Bowker, 1965). In his 1992 multivariate study on quality, Tan made it clear that he was comparing doctoral programs with similar missions (Tan, 1992). Quantitative correlate studies have two downfalls, according to Tan. The first is that most use a reputation rating as the dependent variable. The *U.S. News & World Report* rankings do something similar by making reputation account for 25 percent of universities' scores. The second limitation is that, just like every other study measuring quality, no one factor or set of factors is seen

as an inclusive determinant of quality. Therefore, a correlative study may be performed to adequately measure these factors among peer institutions, but still may totally miss the mark of judging quality.

Reputation

Many researchers study the substitution of reputation for quality. Lawrence and Green (1980) state that reputation is only a measure of what a person thinks about a university. It is perceived quality, based on imperfect information. Tan said in his 1994 study that "in reputation studies, the focus has mainly been on the ratings of programs based on reputation. Therefore, the interrelationship of many other important variables related to quality were rarely examined and almost never incorporated in the computation of a program rank" (p. 217). The correlation studies, such as Hagstrom's 1971 study, found factors that were significant determinants of quality; however, their dependent variable was a university's reputation score.

Researchers are also concerned with the *U.S. News & World Report*'s Best Colleges Edition, since it puts so much emphasis on reputation. The rankings may create a "vicious cycle" by reinforcing status quo (the so-called Hertz-Avis effect). For example, faculty or administrators involved in evaluating peer institutions may base their decisions on previous reputation rankings and geographical and alumni biases. Dolan (1976) said that only established and large departments would garner high rankings, despite any evidence about the level of quality of those departments.

Harkening back to Anand's definition of quality, Bennett (2001) says the *U.S. News* does not provide an accurate picture of the university. "Using these (measures) is a bit like evaluating cakes by looking at their list of ingredients rather than by tasting them"

(p. 23). Studies reflect that these people closely associate institution reputation with quality, (Nightingale & O'Neil, 1994; Lengnick-Hall & Sanders, 1997) and that administrators are motivated to increase reputation more than any other factor (Marchant, 1994). In 2002, the University of Vermont spent $40,000 to produce a boxed promotional booklet and mail it to the 800 college administrators whose votes make up the reputation scores in Best Colleges' edition (Lowery, 2002). "The most commonly noticed and quoted effort claiming to assess quality in higher education is the annual rankings by *U.S. News & World Report*" (Bennett, 2001, p. 23).

Researchers agree that college rankings are problematic because 1) it is virtually impossible to quantify the quality of education, 2) what is important to one college applicant may be meaningless to another (Dichev, 2001) and 3) entire institutions cannot have a single numerical score (Kersten, 2000). Reputation studies are also subject to alumni bias and rater bias. In the former, an alumni is likely to rate his or her alma mater highly, despite any evidence of quality (Webster 1981; Cartter, 1966; Lawrence & Green, 1980). In the latter, a person is not knowledgeable about an institution leaves his or her rating to chance, thus possible skewing the results. They may rate based on geographical preference or familiarity with the institution (Blackburn & Lingenfelter, 1973; Lawrence & Green, 1980; Tan, 1986).

Higher education researchers have advocated a way to assess more than just reputations and rankings. Astin supported a talent development conception of excellence, where universities could be judged not on reputation or resource base but on their ability to develop the talents of the students (1982). That idea has not caught on, especially in the media. Johnes and Taylor (1990) said universities should be evaluated in light of their

desired outputs and available inputs. The focus, they and others argue, is that quality assessment should focus on the mission of universities. Each university should have a mission. Each university should have methods of evaluating how effective the university is completing that mission. That should be the only way quality should be assessed, Johnes and Taylors assert. Of course, that would take away the ability to compare universities across the board, and the media would not like that.

Despite the difference between actual quality (whatever that may be) and reputation (perceived quality), the two are linked closely when assessing higher education institutions. “While reputation should not be equated with quality, it also should not be dismissed as an insignificant part of the social reality” (Cole & Liberty, 2001). When choosing universities, students consider the reputation of the school. They realize that the school’s reputation may have an impact on their career. Faculty and staff of universities also note that reputation plays a part in appointments, resources, facilities, and recruiting able students and faculty.

Studies of Student Perception of Quality

Many studies have been performed on student choice to analyze the many factors that affect how a student chooses a university. Several factors play an initial part in influencing a student’s choice — student financial aid, college publications, news media, student expectations, significant others and campus visitations. Of course, the choice is limited somewhat by the student’s choice of study, family or work responsibilities and geographic ties. Family, high school and friends can also affect the student’s choice (McDonough, 1998). Besides choice of study and family-environmental factors, reputation is a big player in a student’s choice. Over 60 percent of all beginning students

at four-year institutions cited reputation as the main reason for attending a college, more so for students at four-year private institutions (McDonough, 1998). This impact makes its way into finances, especially with potential students. Many college students, especially high-achievers, say they find rankings useful in choosing a school (McDonough, 1998; Owings, 1998). Despite even *U.S. News & World Report'*s suggestion that rankings should not be the only tool in a student's school choice, that is the case many times (Goldiner, 2000).

Some studies have focused on how students perceive universities will serve their needs. Some researchers have described students as consumers and used the SERVQUAL tool to measure consumer confidence in specific institutions. The tool uses five dimensions that can be ranked in order of importance: reliability, assurance, tangibles, responsiveness, and empathy. This scale has been replicated in performance-only based measures (Cronin & Taylor, 1992) and found to be appropriate to a wide range of consumer services, of which university services are typical (Joseph & Joseph, 1997; Ryan & Cliff 1997). The founders of the scale, Parasuraman, Zeithaml and Berry (1988), assert that the SERVQUAL scale deals with perceived quality. They state "perceived service quality is a global judgment or attitude concerning the superiority of service whereas satisfaction is related to a specific transaction" (p. 16).

However, studies fall short of going outside the scope of choice. The studies do not ask how students perceive the quality of universities overall, not just the ones they chose, and none ask about the media's involvement in the process.

Summary

Previous studies have addressed the power of media, the power of reputation and the dilemma of defining quality. Those that study media note that the media has the ability to influence not just what people think, but also the level of importance they put on news events. Studies about student choice put an emphasis on how a school's reputation is a vital part of its "quality." Finally, studies about quality consider and critique the different measures of quality for higher education, with no consensus on the definition of the term. Given the vast array of studies of these three elements, the need arose for a study to combine the three to measure the way students define quality, the way media defines quality and the congruence between the two. The need also arose to determine the level of effect the media has on students' view of reputation and quality.

Chapter Three

Study Design

This study determined student perception and media representations of universities, and then correlated the two to find similarities and differences in each. Data were obtained in two main ways: 1) a survey of college freshmen and 2) content analysis of print media. A total of 183 students in three universities responded to a mailed survey. The students answered Likert-scale questions in order to determine their methods of gathering information and determining the quality of higher education institutions. They gauged their attention to media messages, and they also ranked 10 higher education institutions in terms of quality. Aggregated answers from the survey were correlated with a content analysis of selected newspapers, which determined the level of attention the media gives to specific universities and what terms the media equates with quality. The content analysis was conducted through the use of Nexis-Lexis article retrieval program. The correlations between different areas of the surveys and the content analysis were performed using the Spearman rank-difference test, Spearman's rho and Pearson's r.

Survey

Mass media studies frequently use surveys to gauge public opinion and media effects (Wimmer & Dominick, 1994). In testing for agenda setting effects, surveys are the second part of most studies. Agenda setting surveys are analytical instead of descriptive. They attempt to explain why agenda setting exists or does not exist. In analytical surveys, more than two variables are examined to test the research hypothesis or answer research questions, as is the case in this study. Through correlation, researchers can examine the interrelation among variables and draw inferences that explain the relationships. In

agenda setting, the survey can explain how, why and how much the media influences the public perception. This study studied agenda setting by showing the interrelation among items concerning media treatment of universities and the students' perception of those universities (Wimmer & Dominick, 1994).

Surveys have many advantages in correlation studies. They investigate problems in realistic settings, such as newspaper and magazine reading patterns in this study. This removes the possibility of artificial conditions of laboratories or screening rooms. The cost is reasonable, especially in the case of a questionnaire as used in this study. The next advantage is that large amounts of data can be collected from a variety of people. For this study, the survey was a questionnaire that measures intangibles from a sample of students. Intangibles are attitudes and opinions inferred from indirect measures.

For this survey to be successful, the questions were constructed to be clear and unambiguous, using Dillman's survey construction as a guideline (1976). The questionnaire was easy to read and understandable, since the students were unable to obtain explanations. This problem arises when a researcher becomes so closely associated with the topic that he or she cannot relate the topic's issues to an unconnected respondent. The questions were constructed so that the students did not need to know anything about *U.S. News* or other media rankings to complete the survey. The survey did not contain specialized words, education research jargon and journalese. The questions were kept as short as to not confuse respondents. The questionnaire also avoided other pitfalls of survey research – double-barreled questions that ask two or more questions, biased words such as "just," leading questions that suggest certain responses, questions that ask for highly detailed information (such as how many newspaper articles about Harvard a

respondent read in the past 40 days), and potentially embarrassing questions, such as family income.

The survey consisted of 41 close-ended questions. Answers for close-ended can be easily quantified and are uniform. The one potential problem of close-ended questions is that important responses are sometimes excluded. The survey was constructed to ensure that all possible answers were on the survey without overbearing the person filling out the survey.

Content analysis

The content analysis of 13 regional and national newspapers and magazines, including *U.S. News & World Report,* explained what attributes of universities are mentioned in stories about institutions, and how often a selected sample of institutions are covered in a specific amount of time.

In media studies, content analysis involves measuring the amount of time or space the media devotes to a person or event. Ideally, a content analysis should include all media, including television, radio, newspaper, magazines, internet and advertising. Unfortunately, this would take much time. Most studies are confined to one or two media, usually television or newspapers (Williams & Semlak, 1978).

To hand-code a content analysis, a researcher searches each news article that mentions that university. For some studies, any time a university is mentioned in the media in a sports setting receives the weight of one-half a story, which is the technique this study used. Research and conventional wisdom concedes that a university's athletic prowess has an effect on its reputation, especially regionally. However, universities with large athletic departments get mentioned many times in newspapers, from large game

stories about a football team to one-paragraph summaries of a junior varsity softball match. Not every one of the sports stories has a direct effect on reputation. Therefore, a lesser weight is given to all sports-related stories concerning a university.

Pilot Study

A pilot study was conducted in 2002 to determine the underlying themes to student perception of higher education institutions. This study was a phenomenological, studying the process through which a student determines the reputation of a university. The study revealed that students vary on levels of media intake, media trust, reaction to media messages and methods of judging university quality (See Appendix E). It also revealed that the level of congruence between student rankings of universities and the *U.S. News & World Report*'s rankings of the same universities was high, even though some students had low media trust or low media intake. The pilot study corresponds with earlier literature that supports agenda setting. Five of the six students ranked universities' reputations in the general order of mass media coverage of the five institutions. Other studies indicate that the more a person relies on mass media, the more susceptible he or she is to the agenda setting effect. This study also supported that. This pilot study affirmed the need for a study determining how students perceive quality of institutions, what information they look for in constructing perceptions of institutions, how the media represents as quality of institutions, and what influence the media may have on determining student perception of institutions.

Sample

Survey

The survey sample was 600 college freshmen from three universities – the University of Oklahoma, Indiana University and University of Texas-Austin. College freshmen have recent experiences in judging the quality of universities. Still fresh on their minds are the messages that came from college admission offices, friends, relatives and the media about the quality of universities. Two hundred students from each university were selected randomly. The size of the sample was determined to create strength in the findings. This number of students from each institution achieved higher internal validity. Cartter concluded in his 1966 study that at least 50 knowledgeable persons would be required in a sample to ensure reliability (Cartter, 1966). Therefore, the target number from each campus was 50 students for a total of 150 students. A further step to determine the sample number was to anticipate the response rate. According to Kalton (1983), any response rate to a mailed survey about 20 percent is considered a success. Other researchers (Church, 1983; Skaw & Beebe, 2001) conclude that one can increase the response rate to 30 percent if the survey includes monetary incentives and follow-up mailings. This study used both. To achieve 150 responses assuming a 30 percent response rate, one would need to send out 500 surveys. The number was increased to 600 so that each campus received 200 surveys.

The selected students received a letter containing the survey and instructions on completing and sending the survey back in a self-addressed stamped envelope. In compliance with IRB rules, the students were notified of their rights and informed that by returning the survey they consented to the study.

A representative sample is important in survey research. Therefore, the choice of the 200 students from each campus was done through simple random sampling. After obtaining a list of student mailing addresses from each university, Microsoft Excel was used to choose 200 random addresses out of the list. The survey was conducted using Don Dillman's Total Design Method, which he developed in 1978 to improve response to mail surveys. The method is a procedure that examines every aspect of the survey process that might affect the quantity of response (Dillman, 1978).

Content Analysis

To get a basic number of media cites, this study examined the sample of universities through print news sources. The sample of universities was Harvard University, Yale University, University of Michigan, Brigham Young University, Wake Forest University, University of Missouri, Emory University, University of North Carolina, California Institute of Technology and University of Oregon.

Table 1

Universities and Media Studied

University	*U.S. News & World Report* Ranking*	*U.S. News* reputation ranking**	National newspapers and magazines selected	Regional newspapers selected
Harvard University	1	4.9	New York Times, Los Angeles Times, Christian Science Monitor Wall Street Journal, Newsweek, Time and U.S. News & World Report	Daily Oklahoman, Tulsa World, Indianapolis Star, Louisville Courier-Tribune, Austin Statesman-American, and Houston Chronicle
Yale University	3	4.8		
University of Michigan	25	4.6		
Brigham Young University	67	3.1		
Wake Forest University	28	3.4		
University of Missouri	73	3.4		
Emory University	18	4.1		
University of North Carolina	29	4.2		
Cal Tech	5	4.7		
University of Oregon	124	3.3		

*ranking of national doctoral universities

** out of 5.0

Examination of news content was accomplished through a combined use of the InfoTrend computer content analysis program, which reads a computer program in the FiltScor language (Fan, 1988), and hand-coding. News content was drawn from the NEXIS electronic database beginning April 1, 2004, until April 1, 2005. Stories were identified as relevant if they mentioned any of the selected universities. The sample of newspapers included four newspapers with a national readership – *New York Times, Los Angeles Times, Christian Science Monitor* and *Wall Street Journal*. To capture the possibility of students who read regional newspapers, this study included the largest two newspapers closest to the campus of the students surveyed. The regional newspapers were: *Daily Oklahoman, Tulsa World, Indianapolis Star, Louisville Courier-Tribune, Austin Statesman-American,* and *Houston Chronicle*. The study also included the articles of three weekly news magazines – *Newsweek, Time* and *U.S. News & World Report*. Several rationales underlie this sampling frame. First, the geographical range in news outlets is substantial, with a mix of national newspapers and smaller metropolitan newspapers. Some research indicates similar national political coverage across news organizations, with the result of parallel relationships with public opinion for national and regional news outlets (Shah et al., 1999); at the same time, significant geographical variance in news outlets seems necessary when examining potential linkages of news coverage with national public opinion polls (Dalton, Beck, & Huckfeldt, 1998).

The sample of universities was 10. The universities involved were Harvard University, Yale University, University of Michigan, Brigham Young University, Wake Forest University, University of Missouri, Emory University, University of North Carolina, Cal Tech and University of Oregon. The universities are located on different

points of the spectrum both geographically and academically. Their reputations vary in terms of *U.S. News*, national coverage and sports. All are major doctoral universities that have garnered some national media coverage.

Items to be Examined

The survey of 600 freshmen examined the criteria freshmen use in perception, their attention to the media and use of media and other sources in getting information about colleges and their perception of a selected group of institutions. The first part consisted of 35 Likert scale questions asking students to identify which factors they use in perceiving quality of institutions. The students rated each item from 1 (not relevant) to 5 (highly relevant).

The survey used questions taken from three instruments. One part of the survey used questions based on the original SERVQUAL, but modified to take account of the particular service setting. Parasuraman, Zeithaml, and Berry (1988) reported that the scale had a reliability rating of .92. Churchill, Brown, and Peter (1993) argue that because the SERVQUAL scales "scores" are really difference scores (perception scores minus expectation scores), problems of reliability, discriminant validity, and variance restrictions exist. They showed that while SERVQUAL had high reliability, a non-difference score rated higher in reliability. Their findings also showed that the scale "failed to achieve discriminant validity from its components", and the distribution of the SERVQUAL scores were non-normal. Because of "wording related" high expectation scores and higher than normal standard deviations on several questions, the authors later revised the SERVQUAL scale (Parasuraman, Zeithaml, & Berry, 1991). Additionally, they added a relative dimension importance section to appropriately weight each

dimension. The final SERVQUAL scale (1991) featured a 7 point scale bounded by "strongly agree" and "strongly disagree", 22 expectations questions, 22 perceptions questions, and 5 point-allocation questions. Empirical evidence indicates that the scale has a reliability of between .80 and .93, good trait validity and predictive/concurrent validity.

The survey also used the College Choice Influences Scale (CCIS; Dixon &Martin, 1991). It was of particular use because the original form was used with college freshmen. The CCIS provides a reliable measure of the multifaceted process of college choice, using five factor-derived subscales. Certain questions used in the scales were excluded because they were not applicable to this study.

Other questions in the survey included some of the 19 factors used by the *U.S. News & World Report*. This allowed a comparison the lists of freshmen and U.S. News to see if both used the same criteria in quality perception. The study also used some of the 12 criteria Tan (1992) used in his multivariate study of quality assessment. Twelve variables commonly thought of as potentially linked to excellence were used in his study: 1) number of faculty, 2) number of graduates produced by the program, 3) number of graduate students enrolled in the program, 4) student academic ability (as measured by the proportion of students who received national fellowships or training support during their graduate education), 5) the median number of years taken by students to complete their doctorates in the program, 6) the placement success rate among graduates in gaining professional employment outside academia, 7) the placement success rate among graduates in gaining academic/research positions in Ph.D.-granting universities, 8) library resources, as measured by a composite library index developed by the Association of

Research Libraries, 9) faculty grantsmanship, 10) the amount of departmental research and development spending, 11) the average publications attributed to the program in three consecutive years, and 12) the percentage of the faculty members with one or more published articles in the same time period. Tan picked these variables because the data were available in a report compiled by the Conference Board of Associated Councils and they were a good representation of the variables that have been used in previous quality assessment studies (Tan, 1992). All the above questions examined the items students used in determining the quality of institutions. The responses indicated whether the students use criteria used by the media in judging quality, or if they use other measures.

The second part was also a Likert-scale survey to gauge the students' attention to media. This brought a case-control design into the study. In a case-control study, people are chosen for their past exposure or experience with a phenomena. They are then compared to others who have lesser or no exposure or experience. The questions about media attention divided the respondents into groups of varying media exposure. The survey asked them how many hours a day and week they take in media messages. This information was used to determine if those with great exposure to media are more apt to rank universities in accordance with the number of times the universities are mentioned in media articles.

The third part required the students to rank the 10 selected universities in terms of quality from best (1) to worst (10). No other directions were given to the student. Therefore, the question required the student to only use his or her definition of "quality" to determine the order of the universities.

In the content analysis, the research examined the number of cites of both the universities and the criteria used in describing the universities' quality. The sheer number of cites of a university implied what kind of reputation the media has ascribed to that institution. The more cites, the better the reputation. Within those cites, the media tied certain criteria to universities – criteria it deemed as indicators of quality.

Indicators

Students' responses to the first part of the survey indicated what type of criteria they use and ignore in determining quality of institutions. If students used criteria not used widely by the media, that indicated the media was not doing its job of delivering information sought by its readers. Also, those answers to the first part of the survey may show that the media used criteria ignored by students.

Answers to the second part of the survey indicated how much students pay attention to media. Based on their answers to this section, the students were placed in different levels of media use, perception of media influence and media exposure. The third part of the survey gauged how students in different tiers of media exposure ranked universities. That information was compared to another indicator that came from the content analysis – how many times the 10 individual universities were mentioned in the media.

Data Collection and Analysis Methods

Once the surveys were collected, the answers from the students were ranked from those items that they used most in determining quality to those items that they used least in determining quality. A factor analysis was also conducted to reduce the 35 items into

a set of factors. The factor analysis summarized the information contained in those 35 items into a smaller number of summary measures.

The content analysis was hand-coded using Lexis-Nexis. In the Lexis-Nexis program, each university's name was entered in a search of the chosen newspapers' articles from April 1, 2004 to April 1, 2005. The results were then also ranked from those quality indicator items cited most by the media to items cited least by the media. Media cites of the 35 items were also combined into the factors derived from the student survey factor analysis.

Table 2

Analysis Methods of Student Survey Data

Set of data from student survey	Data analysis method
Student criteria in perception	Ranked most important down by means of students answers and factor analysis
Media use, perception of media influence and media exposure	Separation into levels of use, perception of influence and exposure, from high to low
Ranking of universities in terms of quality	Ranked 1^{st} (best) to 10^{th} (worst)

From the survey, three sets of data were compiled:

1. The criteria students use to perceive quality of institutions, from most important down.
2. The level of student use of the media, the level of student perception of media influence on their decisions and the level of media exposure.
3. The ranking of quality for a selected group of universities.

Table 3

Analysis Methods of Content Analysis Data

Set of data from content analysis	**Data analysis method**
Number of times a survey term is cited in selected media	Ranked from most cited terms to least cited terms and factor analysis
Number of times a university is mentioned in selected media	Ranked from most mentioned universities to least cited universities

From the content analysis, two sets of data were compiled:

1. The number of times a criteria is mentioned in a media article about a selected group of universities.
2. The number of times each university is mentioned in media articles over a period of time.

By using the Spearman rank-difference test, the results from each data collection method were paired. A Spearman rank-difference coefficient of correlation is a nonparametric test used for determining if there is an association between phenomena. For each criteria listed, the mean of the students' responses were compared to the number of times the criteria is used by the media in describing university quality. In Table 4, a hypothetical result of five criteria is provided. It shows that both students and the media consider academic reputation important. However, freshman retention rate is an important factor of quality to students, but not mentioned much by the media.

Table 4

Hypothetical Rank-difference Test

Criteria	Student survey rank	Number of media cites
Academic reputation	1	69
Alumni giving rate	4	23
Large student population	16	57
Freshman retention rate	3	10
Level of congruence		.257

Table 5

Overview of Correlation Tests

Correlation	First set of data	Second set of data	Method of analysis	Information sought
Correlation 1	student criteria in perception	number of times a survey term is cited in selected media	Spearman rank-difference test and Pearson's r	Congruence between what media report and what students use for perception
Correlation 2	Student levels of media use, perception and exposure	Factors of survey items derived from factor analysis	Spearman's rho	Congruence between levels of media use, perception and exposure and survey results
Correlation 3	Student rankings of universities in terms of quality	The number of times each university is mentioned in media articles	Spearman rank-difference test and Spearman's rho	Congruence between how students rank universities and how often the media cites universities

Through correlation of the sets of data, the following were examined:

1. Correlating the first set of survey data and first set of content analysis data examined how student perception criteria were related to media articles citing those criteria. The third research question was addressed by determining the level of congruence between student use of items in determining quality and media citations of those items. It examined this first through a rank-difference correlation between the two ranked lists, then through a Pearson's r test of correlation between the factors derived from the student survey. The correlation determined if there is consistency between what media represents as quality and what students use in perceiving higher education quality.

2. Correlating the second set of survey data with a factor analysis of the student survey answered the fourth question – relative to other sources of information, to what extent do students get their information from the media in order to perceive university quality? It determined if varying levels of student use of the media, perception of media influence and exposure to media had any effect on how students used items in determining quality of institutions.

3. Correlating the third set of survey data and second set of content analysis data determined if number of articles about an institution is related to its student perception. Through this correlation, the question of how print media is related to students' perception of higher education quality will be determined. For this correlation, the first test involved a rank-difference test. The student ranking of the universities was correlated with the rank of how many cites each university received. Then, the level of media exposure was correlated with the student rankings to examine the relationship between varying levels of exposure to those rankings. The theory of agenda setting was examined

to see if institutions with more media mentions got higher quality evaluation from the students. By dividing students into levels as determined by their attention to media and then measuring the difference that has on their quality perceptions, the study determined if the media sets the agenda of those who pay more attention to it. The theory of agenda setting would be supported if students with a high reliance on media for information rank higher the institutions that garner the most media attention.

A correlation is the degree of linear relationship between two variables. Correlation does not imply causation; an example is the correlation between height and weight. Though the variables have a relationship, one does not necessarily cause the other. –1 is a perfect negative correlation, while 1 is a perfect positive correlation.

Several methods of correlation are available. Pearson's r attempts to understand the relationship between a continuous dependent variable and a continuous independent variable. Spearman's rho and Spearman rank-difference correlation attempts to understand the same relationship, but does not assume the variables are at an interval level. The relationship between the two variables can be positive or negative, and zero correlation indicated no linear relationship. Magnitude indicates degree, while sign indicates directionality.

Anomalies can occur if there is restriction of range in one or both of the variables, there is selection on extreme or middle scores, there is improper combination or aggregation of data, or there are outliers. The assumptions for Pearson's r are that the data represent interval or ratio measurements, that the relationship between X and Y is a linear one and that the distributions of the X and Y variables are symmetrical and

comparable. The assumptions for Spearman's rho and Spearman rank-difference correlation are the same, except that the data can also represent ordinal measurements.

Pearson's r correlation was used in the study when comparing the factors from the student survey with the factor cites from the media content analysis. Spearman's rho was used when correlating students' media use, perception of media influence and media exposure with the method in which students use items in determining quality. Spearman's rho was also used when correlating student level of media exposure with student ranking of universities.

Correlation and regression go hand and hand, since both study how two variables happen simultaneously. Regression, however, helps with prediction of one variable to another. Regression finds the best fitting line – the one that best describes the relationship between the predictor variable and the criterion variable. Although it would be ideal to predict how media influences decisions, social science surveys cannot cover all or even most variables in a decision or event. Agenda setting studies usually settle for explaining the relationship between media coverage and public agenda, rather than using multiple regression to predict cause-and-effect.

Limitations

The biggest internal threat to this study was the students themselves. The study was examining what items they used what they heard about an institution as a basis for their ranking. However, the survey was constructed according to Dillman's survey method (1978) as not to lead the student. Nevertheless, no matter how carefully the questions are asked, one cannot escape the probability that some students lied to make themselves look better.

Survey research has a limitation in that independent variables cannot be manipulated the way they are in laboratory experiments. This diminishes the possibility of determining causal relationships. Too many intervening and extraneous variables are involved that cannot be controlled in a simple survey. Biased results can also arise because of wording or directions within the survey. The people themselves can pose problems. First, their memory may fade about relevant details. When they are asked about their attention to media treatment of universities, it is assumed that they will recall that information. That may not be the case. Some people may provide answers that may conceal their ignorance. This is called prestige bias. Also, people lie. A large sample may discount a person who knowingly deceives, but there is no way of validating truthfulness.

Assumptions

One assumption was that a direct relationship exists between media and students. In a society in which media messages bombard people almost every second of the day, it is impossible to argue against this point. One must also assume that students pay at least a little attention to print media.

Chapter Four

This chapter is comprised of two sections: the data analysis and the data tests. The first section presents the results of the student survey and content analysis of media. This section accomplishes the following:

• It presents the means and standard deviations of all three parts of the student survey.

• It presents the number of times the media mentioned quality items from Part I of the survey, and also the number of times the media mentioned one of the 10 universities in the study.

The second part presents the tests of congruence between the two sets of results, tests of student attention to media and the congruence of the media and students in ranking universities. This part of the chapter uses results of the surveys and content analysis to answer the five research questions of this study:

• The data from student survey pertaining to quality characteristics were analyzed to determine what students use as items that indicate university quality. A factor analysis was performed to determine groups of related items within the survey.

• To answer the next question, data from the content analysis were analyzed in the same way to determine what characteristics were mentioned most in the media. The media cites of 35 items were grouped into the same five factors derived from the student survey to determine what factors received the most attention by the media.

• For the third question, tests of correlation were performed using the results of the student surveys and the content analysis. First, a rank-difference correlation test was performed. This determined the different ways in which students and the media placed

importance on items. Second, a Pearson correlation test was performed on the five factors derived from the factor analysis. This examined the congruence between students and the media in determining the importance of five groups of related factors.

• To answer the fourth question, results from the second part of the student survey were analyzed to determine students' use of the media, perception of media influence and exposure to media. Results from these three areas of the study survey were correlated through Spearman's rho with the five quality factors derived from the factor analysis.

• To answer the final question, a rank-difference test correlated student rankings of universities with media cites of those same universities. This correlation showed the extent of congruence between student views and media views of universities. To further analyze the relationship between media and student rankings of universities, a Spearman's rho test was conducted using level of exposure to media as a variable. This test was conducted to see if students who paid more attention to media ranked better those universities that receive greater attention by the media.

Description of Data

The purpose of this section is to present the data collected from student surveys and content analysis. It describes data with exploratory calculations such as mean and standard deviation. This accomplishes the task of preparing the data to be used in correlations and other tests to answer the research questions. First, the section explores the student surveys. The data it presents comprises of:

• Means and standard deviations from student answers to Part I of the student survey. In Part I, students evaluated how much they used items to determine quality of higher education institutions.

• A factor analysis of Part I of the student survey. A factor analysis was performed to determine if items could be grouped into larger factors. The calculation was done so that later correlation tests could determine if students and the media used one or more groups of items more than others in determining or representing quality.

• Means and standard deviations from student answers to Part II of the student survey. In Part II, students evaluated their attention to, reliance on and exposure to the media. The data compiled would be used later for correlation tests with how they responded to Part I questions.

• Means and standard deviations from student answers to Part III of the student survey. In Part III, students ranked 10 universities from best to worst in terms of quality. Data were compiled and the mean ranking of each university was determined.

• Evaluation of content analysis determining how often media cites quality terms in reference to universities. Data were compiled about how often the media uses one of the 35 items from Part I of the student survey in relation to the 10 universities in this study. The data show how many times an item was mentioned in any of the media during the span of a year.

• Evaluation of content analysis determining how often media cites universities. Data were compiled to show how many times a university was mentioned by the media in the span of a year. The listing was prepared so that it could later be compared to the student rankings of universities.

Overview of Data

The student surveys provided insight on how students pay attention to items of quality and the media. Six hundred surveys were sent in March 2004 to students at three

universities, the University of Oklahoma, Indiana University and the University of Texas. The survey consisted of three parts. In the first part, students evaluated their use of 35 characteristics in determining quality of higher education institutions. In the second part, students analyzed their use and trust of the media. In the final part, the students ranked the quality of 10 universities from best to worst. The number of returned surveys was 183, with two surveys filled out incompletely or incorrectly. The number of surveys returned from each school was as follows: University of Oklahoma – 72 returned surveys, University of Texas – 60 returned surveys, Indiana University – 51 returned surveys. This resulted in a response rate of 30.8 percent. Two students who completed part I of the student survey did not complete parts II and III. Therefore, for the data tests involving parts II and III, the N is 181. The content analysis of newspapers was conducted to track the frequency of cites of the same 35 characteristics as was used in the survey. The content analysis also tracked the number of times one of 10 universities was mentioned by the media. Articles from three news magazines and 10 newspapers from April 2004 to April 2005 were analyzed for content. A computer program, Lexis-Nexis, was used to search news articles. When a quality term was found to be associated with a university, that story was hand-coded to determine if the term was used as an indication of quality. The number of articles published in that time period was more than 500,000. The number of those articles that mentioned one of the ten universities in this study was just over 3,000. The number of those articles that contained evaluative criteria was 353.

Student Survey Data

Student Criteria in Perception

In Part I of the survey, students were asked to evaluate their use of 35 factors in determining the quality of a higher education institution. The Likert-scale evaluation ranged from 1 (highly disagree) to 5 (highly agree). For example, students were asked to disagree or agree with the statement that they used the faculty/student ratio to determine the quality of a university.

Data from the 183 completed surveys was entered into the Statistical Package for the Social Science (SPSS) 13.0 program. The items were analyzed for mean, 95 percent confidence interval, mode, media, variance, standard deviation, range, skewness, kurtosis and standard error. A one-page table of the data was generated.

Table 6

Student Criteria of University Quality

Students were asked to evaluate their use of 35 items in determining the quality of a higher education institution. The Likert-scale evaluation ranged from 1 (highly disagree) to 5 (highly agree). For example, students were asked to disagree or agree with the statement that they used the faculty/student ratio to determine the quality of a university.

	Range	Minimum	Maximum	Mean	Std. Deviation
Academic reputation	2	3	5	4.55	.599
Large student population	4	1	5	3.31	1.071
Sports	4	1	5	3.09	1.230
Teachers' availability outside of class	4	1	5	3.25	.994
Teachers with diverse background	4	1	5	3.13	1.218
Number of faculty	4	1	5	3.44	.855
Number of graduates produced	4	1	5	3.56	1.057
Number of graduate students	4	1	5	3.14	1.021
Student academic ability	4	1	5	3.50	1.074
Median years to complete doctorate	4	1	5	3.00	1.114
Placement success rate outside academia	4	1	5	3.87	.978
Placement success rate in academia	4	1	5	3.53	1.212
Library resources	4	1	5	3.38	1.137
Faculty grantsmanship	4	1	5	2.93	1.064
Department research	4	1	5	3.09	1.198
Average publications	4	1	5	2.83	1.012

(table continues)

	Range	Minimum	Maximum	Mean	Std. Deviation
Percent of faculty with published articles	4	1	5	2.54	1.113
Favorable press coverage	4	1	5	3.17	1.037
Freshman retention rate	4	1	5	3.21	1.059
Percent of classes under 20 students	4	1	5	2.78	1.062
Percent of classes with 50 or more	4	1	5	3.09	1.166
Student/faculty ratio	4	1	5	3.60	1.033
Percent of full-time faculty	4	1	5	3.21	1.174
Selectivity	4	1	5	3.75	1.074
SAT/ACT percentile scores	4	1	5	3.55	1.108
Top 10% of high school class as students	4	1	5	3.54	1.266
Acceptance rate	4	1	5	3.73	.889
Financial resources	4	1	5	3.80	1.103
Alumni giving rate	4	1	5	2.75	1.164
Research produced	4	1	5	3.09	1.152
Reputation of professors	3	2	5	3.97	.880
Alumni achievements	4	1	5	3.42	1.182
Faculty dedication to teaching	4	1	5	3.76	1.123
Student tolerance of cheating	4	1	5	2.68	1.143
Student research	4	1	5	2.81	1.006

The means for the items ranged from 4.55 for academic reputation to 2.54 for percent of faculty publishing research. Of the 35 items, 33 received the lowest score of 1 and the highest score of 5 at least once, resulting in a wide standard deviation for those items. Academic reputation had a mean of 4.55 (sd = .599) and was not rated lower than a 3. The reputation of professors had a mean of 3.97 (sd = .880). It did not receive a 1 from any student. These two items had low standard deviations in comparison to other items. Students were in relative agreement for the importance of number of faculty (3.44 mean, sd=.855), acceptance rates (3.73 mean, sd=.889) and placement success rate of graduates (3.87 mean, sd=.978). Students disagreed most on the importance of sports, top 10 percent of high school graduates as students and diverse background of student population. The mean score of these three items was in the agree (3) category, and the standard deviation for each was above 1.2. The large standard deviation was accounted for by outliers in the scores of large population, number of faculty, number of graduates, number of graduate students, student academic ability, placement success rate of doctoral students, library resources, average publications, percent of faculty publishing, student/faculty ratio, SAT/ACT scores, acceptance rates, alumni achievements and student tolerance of cheating, This further highlights the diversity of answers for the 33 other items.

Student Sources of Information

In Part II of the survey, students were asked to evaluate their use of and attention to media. First, they used a Likert-scale to evaluate their use of the media in making decisions. Then, they answered questions about how many hours a week they watch television, read newspapers and magazines and read internet news sites.

Students were first asked to agree or disagree with the statement "I use the media in gathering information about issues or topics." The reactions to the statement ranged from 1 (highly disagree) to 5 (highly agree). The mean for the answer was 3.73 (sd = .960), and the number chosen most by students was 3. There were no outliers in the data. Students were then asked to agree or disagree with the statement "I use the media in making decisions about issues or topics." Students were less likely to use the media in making decisions (3.21 mean) than using it as a gathering tool. One student highly disagreed that he used it in making decisions, while 21 students highly agreed that they use the media in making decisions. The mode was 4 for the media use question.

Students were asked to analyze their intake of different media messages in the next three questions. The use of television ranged from 0 hours a week to 25-35 hours a week. Sixty-nine students said they spend 3-5 hours a week watching television. Fifty students said they spend 1-2 hours a week watching television, and 31 said they watch TV 6-10 hours a week. On the extremes, eight said they watch no television, and one said he or she watches 25-35 hours a week watching television. The students said they spend less time reading newspapers and magazines. Seventy-seven said they spend 1-2 hours a week reading. Seventy-five spend 3-5 hours a week reading, but eight said they do not read newspapers and magazines. Eighteen students said they read 6-10 hours a week, and

three read more than that. The least time is spent on internet news sites. Twenty-five students said they do not go to news web sites. Most students (85) spend 1-2 hours on internet news sites. Forty-two students said they spend 3-5 hours a week on these sites, and 20 spend 6-10 hours a week reading news sites. Nine students spend more time than that on news sites, with one student saying that he spends more than 35 hours a week on internet news sites.

Answers from these three questions were combined into one variable – Exposure. The hours each student spent each week watching television, reading newspapers or magazines and reading internet web sites were combined into one score – 1 for low exposure, 2 for medium exposure and 3 for high exposure.

Level of Exposure to Media

	Low exposure	**Medium exposure**	**High exposure**
Number of hours of exposure per week	0-7	8-16	17 and above

Table 7

Student Use of Media

Students were asked to agree or disagree with the statement "I use the media in gathering information about issues or topics." The reactions to the statement ranged from 1 (highly disagree) to 5 (highly agree).

	Range	Min-Imum	Max-imum	Mean	Std. Deviation	Variance
Media use	4	1	5	3.73	.960	.921

Student Influence of Media

Students were asked to agree or disagree with the statement "I use the media in making decisions about issues or topics." The reactions to the statement ranged from 1 (highly disagree) to 5 (highly agree).

	Range	Min-Imum	Max-imum	Mean	Std. Deviation	Variance
Media influence	4	1	5	3.21	.882	.778

Student Intake of Media

Students were asked to analyze their intake of different media messages in three questions. They were asked to gauge how many hours each week they spent watching television, reading newspapers and magazines and reading internet news sites. The answers were 1 for 0 hours, 2 for 1-2 hours, 3 for 3-5 hours, 4 for 6-10 hours, 5 for 11-16 hours, 6 for 17-24 hours, 8 for 25-35 hours and 9 for more than 35 hours.

	Range	Min-Imum	Max-imum	Mean	Std. Deviation	Variance
Hours watching television	6	1	7	3.11	1.130	1.277
Hours reading newspaper/magazines	4	1	5	2.62	.791	.626
Hours reading internet news sites	7	1	8	2.51	1.191	1.418

Student Ranking of Universities in Terms of Quality

In Part III of the survey, students were asked to rank universities in terms of quality. For example, the best university in terms of quality was ranked 1, the second best in terms of quality was ranked 2, and so on until the final university was ranked 10th. Respondents ranked Harvard 1st by an overwhelming margin. Out of 181 students, 134 ranked Harvard above all other universities. Thirty-seven ranked the university second, nine ranked it 3rd and one student ranked it 4th. Thirty-four students ranked Yale above Harvard, with Emory (eight) and Michigan (five) as the other two schools receiving a top ranking. Yale was consistently ranked second by the students. Students' belief in the quality of Harvard and Yale is evidenced by the low standard deviation and variance of the two. Harvard was never ranked lower than 4th, and Yale received few rankings below 3rd.

While Harvard and Yale had means of 1.32 and 1.97, respondents ranked the other universities so differently that none had a ranking above 5th. Emory was ranked 3rd overall, but had a wide standard deviation of 2.471. Next was Michigan, which was ranked 4th or 5th more consistently. Missouri and Oregon were at the bottom of the list, even though at least one student ranked Missouri 2nd.

Table 8

Student ranking of universities

Students were asked to rank universities in terms of quality. For example, the best university in terms of quality was ranked 1, the second best in terms of quality was ranked 2, and so on until the final university was ranked 10th.

	Range	Minimum	Maximum	Mean	Std. Deviation
1. Harvard University	3	1	4	1.32	.594
2. Yale University	6	1	7	1.97	.703
3. Emory University	9	1	10	5.38	2.471
4. University of Michigan	8	2	10	5.50	1.948
5. California Institute of Technology	9	1	10	5.82	2.774
6. University of North Carolina	8	2	10	5.84	1.793
7. Brigham Young University	7	3	10	6.34	2.300
8. Wake Forest University	8	2	10	6.69	2.257
9. University of Missouri	8	2	10	7.94	1.639
10. University of Oregon	7	3	10	8.15	1.537

Content Analysis

Number of Times a Term is Cited in the Media

The articles mentioning the universities were analyzed to determine what terms were used. The list generated from this analysis was later correlated with the students' list of terms to see if the media presented the criteria students used to perceive quality. The stories were first located through the use of Lexis-Nexis and Newsbank. Lexis Nexis was used for the national newspapers and magazines, and the regional newspapers were

analyzed using Newsbank. Truncated phrases and words were searched in each article. Once a word was found, the article was read to see if the word pertained to the university. For example, an article in the *Tulsa World* mentioned both ACT and Yale. However, the article concerned information about an upcoming ACT test at a testing center on Tulsa's Yale Avenue. The reliability of hand-coded content analysis can be increased through the use of a second coder. This coder reviews a fraction of the articles and codes them. The result of how the two researchers code the same articles are then correlated to determine the degree of agreement between the two, which is defined as intercoder reliability (Kolbe, 1991). For this study, the intercoder reliability score was .982.

The percentage of stories about universities that contained evaluative terms was very small. Out of more than 3,000 articles mentioning one of the ten universities, only 353 associated evaluative terms with the university. Many articles in the regional newspapers focused on current events associated with the universities, such as the start of a semester or the opening of a play. These information-only articles did not contain evaluation. Some articles contained more than one evaluative term. For example, an article about the University of Oklahoma's acceptance rate also mentioned the percentage of OU students who graduated in the top 10 percent of their high school class.

Reputation was the most-often mentioned term associated with articles about universities. Sixty-nine articles dealt with universities' current reputation, desired reputation or tarnished reputation. Second on the list was the reputation of professors, with 41 cites. Therefore, more than 100 articles dealt with the reputation of the university or one of its employees – not specifically a trait of quality, but a supposed indicator of quality. Media articles dealt most with academic reputation (69), reputation of professors

(41), financial resources (35), research produced (23), alumni giving rate (19), sports/extracurricular programs (18) and student academic ability (18). Some topics that the media ignored includes year to complete doctorates (1 cite), placement success in academia (0), average publications (1), percent of classes under 20 students (0), percent of classes with 50 or more (0) and student research produced (2).

Table 9

Media Mention of Evaluative Terms

The following table details the number of times the media outlets mentioned evaluative terms in connection to any of the 10 universities.

	Media cites
Academic reputation	69
Large student population	7
Sports/extracurricular programs	18
Teachers' availability outside of class	5
Teachers with diverse background	14
Number of faculty	5
Number of graduates produced	10
Number of graduate students	2
Student academic ability (as measured by fellowships)	18
Median number of years to complete doctorates	1
Placement success outside academia	8
Placement success in academia	0
Library resources	15
Faculty grantsmanship	6
Department research	13
Average publications	1
Percent of faculty members with published articles	4

(table continues)

	Media cites
Favorable press coverage	17
Freshman retention rate	2
Percent of classes under 20 students	0
Percent of classes with 50 or more	0
Student/faculty ratio	3
Percent of full-time faculty	4
Selectivity	11
SAT/ACT percentile scores	16
Top 10% of high school class as students	10
Acceptance rate	4
Financial resources	35
Alumni giving rate	19
Research produced	23
Reputation of professors	41
Alumni achievements	15
Faculty dedication to teaching	4
Student tolerance of cheating	5
Student research produced	2

Number of Times a University is Mentioned in Selected Media

Thirteen publications were analyzed to find mention of the 10 universities in this study. Articles from April 2004 to April 2005 comprised the data pool. Using Lexis-Nexis and Newsbank, the name of the university was entered as a search term. Articles

that included the name of the university were then analyzed. Many articles were not counted because they did not specifically concern the university. For example, a review of a book that was published by the Yale University Press would not be counted as an article for Yale. In accordance with earlier agenda setting studies, articles that solely concerned reviews, previews or analysis of athletic contests were counted as .25 of a full article.

Harvard was mentioned most by all types of media. It was mentioned 1,152 times, nearly double the times Yale was mentioned and nearly more than the other eight universities combined. Regional papers mentioned Harvard in the most disproportionate way. Yale received many cites from the major newspapers. The University of Michigan had many mentions in the media due to the newsworthy work of alumni and sports teams. It was cited the third most. After Michigan, several universities had similar number of cites – North Carolina (197), Cal Tech (170), Emory (129), BYU (111) and Missouri (108). The two schools with the fewest cites were Wake Forest (65) and Oregon (57).

Table 10

Citation of Universities by Media

The following table details the way each university is cited in the various media in this study. As mentioned in the prospectus, the positive or negative nature of the article is not considered. Also, articles pertaining solely to athletic contests count at .25 of an article.

university	magazines	major newspapers	regional newspapers	total
Harvard	320	693	139	1152
Yale	131	417	57	605
Michigan	120	230	59	409
North Carolina	75	99	23	197
Cal Tech	80	42	48	170
Emory	34	34	61	129
BYU	10	62	39	111
Missouri	30	35	43	108
Wake Forest	7	35	23	65
Oregon	25	19	13	57

(**magazines** Newsweek, Time, U.S. News)

(**major newspapers** L.A. Times, New York Times, Wall Street Journal, Christian Science Monitor)

(**regional newspapers** Houston Chronicle, Austin American, Daily Oklahoman, Tulsa World, Indianapolis Star, Louisville Courier)

Data Analysis and Statistical Tests

Research question #1:What criteria do students use in their perceptions of the quality of higher education institutions?

To answer question #1, data from the student survey was first analyzed and ranked. Then, the items were placed into factors using a factor analysis. Data from the first part of the student survey, described above, was analyzed using SPSS. Items used most by students in determining quality were academic reputation, reputation of professors, placement success rate, financial resources, faculty dedication to teaching, selectivity, acceptance rates and student/faculty ratio. Students used academic reputation far more than any other item in determining university quality. Every respondent chose at least a 3 on the scale of 5 for academic reputation. One-hundred eleven of the 183 respondents highly agreed that they use reputation in determining the quality of an institution. Sixty-two students chose 4 on a scale of five for this attribute, and 10 chose a 3. This item scored well above all others with a mean of 4.55 (sd = .599). The other reputation-related item – faculty reputation – was the second highest item with a mean of 3.97. No student chose less than 2 on the scale of 5 for that item.

For all other items, at least one respondent highly disagreed that he or she used that item, and at least one respondent highly agreed. The low standard deviations of some items indicate that students were in agreement about the importance of the items. The items with the lowest standard deviations included number of faculty, acceptance rates, placement success rate and teacher availability. Students disagreed most about the importance of sports, diverse background of faculty, placement success of doctoral students, and top 10 percent of high school class as students. Items used least by students

in determining quality were percent of faculty with published articles, student tolerance of cheating, alumni giving rate, percent of classes under 20 students, student research, average publications and faculty grantsmanship. Five of the six items used least in determining quality could be defined as non-impact items. Student tolerance of cheating, alumni giving rate, student research, average publications and faculty grantsmanship have little perceived direct impact on students.

The result of the surveys shows that students use two types of items in determining quality of higher education institutions. First, students use reputation-related items the most. Next, they use items that impact them directly. After the two reputation items, four of the next six most important items could be interpreted as impact items. Each item – placement success rate, faculty dedication to teaching, acceptance rates and student/faculty ratio — affects the student directly. This is in contrast to the reputation of the school or faculty, which has no direct bearing on the student.

Table 11

Importance of Criteria in Student Evaluation of Quality

The following table details the mean and ranking of criteria used in determining institutional quality. In the survey, students were asked to identify items they use in determining quality of an institution. They rated each item from 1 (highly disagree) to 5 (highly agree) in completing the following statement: I used _____ to determine the quality of a higher education institution.

	Mean score
1. Academic reputation	4.55
2. Reputation of professors	3.97
3. Placement success outside academia	3.87
4. Financial resources	3.80
5. Faculty dedication to teaching	3.76
6. Selectivity	3.75
7. Acceptance rate	3.73
8. Student/faculty ratio	3.60
9. Number of graduates produced	3.56
10. SAT/ACT percentile scores	3.55
11. Top 10% of high school class as students	3.54
12. Placement success in academia	3.53
13. Student academic ability (as measured by fellowships)	3.50
14. Number of faculty	3.44
15. Alumni achievements	3.42
16. Library resources	3.38
17. Large student population	3.31
18. Teachers' availability outside of class	3.25
19. Freshman retention rate	3.21

(table continues)

	Mean score
20. Percent of full-time faculty	3.21
21. Favorable press coverage	3.17
22. Number of graduate students	3.14
23. Teachers with diverse background	3.13
24. Percent of classes with 50 or more	3.09
25. Sports/extracurricular programs	3.09
26. Department research	3.09
27. Research produced	3.09
28. Median number of years to complete doctorates	3.00
29. Faculty grantsmanship	2.93
30. Average publications	2,83
31. Student research produced	2.81
32. Percent of classes under 20 students	2.78
33. Alumni giving rate	2.75
34. Student tolerance of cheating	2.68
35. Percent of faculty members with published articles	2.54

To examine more fully the method students used in determining university quality, a factor analysis was performed to determine if the 35 items in Part I of the student survey could be combined into sets of factors. The analysis was used to determine what items contributed little to the variance and what items could be ignored as redundant with more important items. The factor analysis resulted in a set of factors that were related and could be summarized by an encompassing phrase. A factor analysis performed in SPSS showed that five factors explain 65.9 percent of all variance in the items. The 35 items were then placed into the sets to which they were most closely

correlated using a Varimax-rotated component matrix. Five factors were picked through use of the data reduction tool in SPSS. The study used only factors that accounted for at least 5 percent of the variance in the criteria. The first four factors accounted for 32.4, 16.6, 5.9 and 5.8 percent, respectively. The fifth factor accounted for 4.996. It was determined that the percentage of variance was close enough to 5 percent, and the fifth factor was included. The five factors were “reputation & prestige,” “student & faculty achievement,” “institution attributes,” “classroom attributes” and “admission.”

Table 12

Quality Criteria Factors

Group	Criteria	Factor loading	Factor score coefficient
Reputation & prestige	academic reputation	.958	.138
	reputation of professors	.955	.131
	financial resources	.918	.118
	research produced	.871	.109
	alumni giving rate	.776	.087
	student academic ability	.755	.078
	library resources	.736	.083
	favorable press coverage	.729	.078
	sports	.717	.086
	teachers with diverse background	.665	.109
	SAT/ACT scores of students	.662	.063
	department research	.610	.056
	selectivity	.549	.040

(table continues)

Group	Criteria	Factor loading	Factor score coefficient
Student and faculty achievement	Placement success rate in academia	.750	.194
	student research	.714	.186
	alumni achievements	.645	.208
	average publications	.612	.105
	faculty dedication to teaching	.594	.128
	placement success rate of graduates	.565	.157
	faculty grants	.560	.103
	student tolerance of cheating	.442	.107
Institution attributes	median years to achieving doctorate	.769	.271
	number of graduate students	.721	.257
	large population	.647	.246
	number of graduates	.549	.163
	percent of faculty publishing	.547	.140

(table continues)

Group	Criteria	Factor loading	Factor score coefficient
	% of classes with 50 or more students	.786	.290
Classroom	% of classes under 20 students	.748	.289
	student/faculty ratio	.619	.194
attributes	freshman retention rate	.588	.217
	teacher availability	.543	.194
	percent of full-time faculty	.538	.126
	number of faculty	.473	.113
Admission	Top 10% of high school grads as students	.716	.305
	acceptance rates	.664	.354

Table 13

Total Variance Explained for Criteria Factors

Component	Total	Initial Eigenvalues	
		% of Variance	Cumulative
1	11.362	32.462	32.462
2	5.820	16.628	49.090
3	2.090	5.971	55.061
4	2.058	5.879	60.941
5	1.749	4.996	65.937
6	1.422	4.064	70.000
7	1.150	3.287	73.287
8	.969	2.767	76.055
9	.870	2.486	78.541
10	.773	2.209	80.750
11	.656	1.874	82.624
12	.634	1.811	84.435
13	.591	1.690	86.125
14	.567	1.621	87.745
15	.498	1.424	89.169
16	.404	1.154	90.323
17	.373	1.066	91.389
18	.350	1.000	92.389

(table continues)

Component	Total	Initial Eigenvalues	
		% of Variance	Cumulative
19	.291	.832	93.221
20	.281	.802	94.023
21	.275	.786	94.809
22	.260	.744	95.553
23	.240	.686	96.238
24	.210	.599	96.837
25	.177	.504	97.342
26	.169	.483	97.825
27	.154	.440	98.265
28	.139	.398	98.663
29	.118	.337	99.000
30	.100	.286	99.286
31	.086	.245	99.531
32	.064	.184	99.714
33	.050	.143	99.857
34	.035	.101	99.959
35	.014	.041	100.00

Table 14

Rotated Component Matrix for Criteria Factors

	Component				
	1	2	3	4	5
Academic reputation	.958	-.088	-.069	-.078	.024
Reputation of professors	.955	.057	-.034	-.004	.031
Financial resources	.918	-.013	.044	-.099	.095
Research produced	.871	.285	.058	.013	.007
Alumni giving rate	.776	.033	.249	.130	.141
Student academic ability	.755	.345	.174	-.026	.095
Library resources	.736	.330	.300	.136	-.049
Favorable press coverage	.729	-.018	.042	.052	.314
Sports	.717	-.276	.372	.055	.074
Teachers with diverse background	.665	.176	.142	.287	-.325
SAT/ACT percentile scores	.662	-.084	-.143	-.090	.517
Department research	.610	.555	.212	7.94E-005	.003
Selectivity	.549	.255	-.078	.061	.460
Placement success rate in academia	-.107	.750	.337	.131	.165
Student research	.073	.714	.081	.255	-.036
Alumni achievements	-.092	.645	.073	-.016	.077
Average publications	-.032	.612	.494	.293	-.021
Faculty dedication to teaching	.164	.594	.097	.355	-.055
Placement success rate outside academia	.356	.565	.151	.006	.284
Faculty grantsmanship	.329	.560	.535	.060	-.098
Student tolerance of cheating	.209	.442	-.033	.239	-.046

(table continues)

	Component				
	1	2	3	4	5
Median years to complete doctorate	-.080	.253	.769	.123	-.032
Number of graduate students	.013	.275	.721	-.002	.112
Large student population	.296	-.230	.647	.224	.119
Number of graduates produced	.480	.192	.549	.095	.203
Percent with faculty with published articles	.247	.292	.547	.327	-.101
Percent of classes with 50 or more	-.055	.053	.290	.786	.020
Percent of classes under 20 students	-.175	.245	-.213	.748	.222
Student/faculty ratio	.032	.448	.050	.619	-.024
Freshman retention rate	-.070	-.035	.219	.588	.253
Teachers' availability outside of class	.274	.292	.112	.543	-.353
Percent of full-time faculty	.173	.469	.302	.538	.171
Number of faculty	.254	.321	.426	.473	.038
Acceptance rate	.072	.123	.186	.217	.716
Top 10% of high school class as students	.420	.036	.048	.104	.664

The two items rated highest by students – academic reputation and reputation of professors – were placed in the first factor – "reputation & prestige." Other items with high loadings in the first factor included financial resources, research produced, alumni giving rate, student academic ability, library resources, favorable press coverage and sports. Four other items – teachers with diverse background, SAT/ACT scores of students, department research and selectivity – how lower loadings to the first factor, but were more closely tied with the first factor than other factors. Students ranked five items in this factor in the top 10. This first factor was titled "reputation & prestige." Students use items in this factor to be indicators of reputation. For example, students interpret large donations by alumni, national awards by students and successful sports teams as indicators of quality of institutions, when in fact they are indicators of reputation.

"Student & faculty achievement" was the next factor. Placement success rate in academic, student research, alumni achievements and average publications had high loadings in this factor. Two items considered important by students – placement success outside academia and faculty dedication to teaching – were placed in this factor with low-ranked items such as faculty grantsmanship and student tolerance of cheating. Student tolerance of cheating had only a .442 loading to this second factor. However, this item had even lower loadings in the other four factors. It should be noted that when students were not asked about an institution's student tolerance of cheating. They were only asked if they agreed or disagreed that they used student tolerance of cheating as an indication or quality.

The third factor was "institution attributes." Median years to complete doctorate and number of graduate students were the items with high loadings in this factor. Neither

of these items was ranked highly by students. Large student population and number of graduates produced were also placed in this factor. The one other item, percent with faculty with published articles, would seem to fit better in the "student and faculty achievement" factor. However, its loading in the second factor was only .292, while its loading with the third factor was .547.

The fourth factor, "classroom attributes," was comprised of the items percent of classes with 50 or more, percent of classes under 20 students, student/faculty ratio, freshman retention rate and teachers' availability outside of class. Only two items – acceptance rate and top 10 percent of high school class as students – comprised the fifth factor, "admission."

A factor score for each student's answer to an item in relation to each factor was calculated and put into SPSS. A factor score is an estimated location of an item relative to a factor. The calculation to create the factor scores consisted of multiplying a student's answer to an item with that item's scoring coefficient within the factor. The results of this calculation on all 35 items were then summed to create the factor score. The following equation illustrates the construction of the factor score:

F1 (factor 1) = (component correlation for item 1 to factor 1)*(student answer to item1) + (component correlation for item 2 to factor 1)*(student answer to item 2) + (component correlation for item 3 to factor 1)*(student answer to item 3) … (component correlation for item 35 to factor 1)*(student answer to item 35).

For example, Student 1's answers of 5 for academic reputation, 4 for reputation of professors, 3 for financial resources, 1 for student research, and so on, were plugged into the formula.

F1 (reputation & prestige) = .138*5 + .131*4 + .118*3…-.010*4 = 3.0708.

The result was Student 1's factor score for the "reputation and prestige" factor. A factor score was calculated on each of the five factors for the 183 students. The factors scores were needed so that later tests of congruence could use the factors as variables. During this calculation, some items had negative score coefficients for factors. The negative scores indicated that the way students responded to an item correlated negatively to that specific factor. For example, the "number of graduate students" item had a negative loading and score coefficient in relation to the "reputation & prestige" factor. This indicated that students gave that item a lower score in relation to the higher scores they gave to items in that factor with larger positive loadings and score coefficients, such as academic reputation. However, none of the factors was comprised of an item with a negative loading. This means that no item was so negatively related to a factor that it was included in that factor – (for example, if "selectivity" had a -.958 loading to the second factor, it would be included in that factor to the high loading). Since no factors have negative loadings, there is no need for additional calculations to compensate for the negative relationship.

Each factor contained items ranked both high and low by the students. However, the "reputation and prestige" factor had the most highly-ranked items. Students used reputation-related factors the most when determining quality of higher education institutions.

Research question #2: In light of those criteria, how does the print media represent quality?

To answer question #2, media cites of quality criteria were first analyzed and ranked. Then, the criteria were placed into the same five factors derived from the student survey factor analysis. The media outlets were examined to judge how often the criteria used in Part I of the student survey are mentioned by the media. Data from the content analysis was analyzed using SPSS. Quality criteria cited most by the media was academic reputation, reputation of professors, financial resources, research produced, alumni giving rate, sports/extracurricular programs and student academic ability. By far, reputation was the most-often mentioned term associated with articles about universities. Since the survey did not ask students to differentiate between good reputation and bad reputation, the study followed the rule of "any publicity is good publicity." For example, several articles in the content analysis dealt with the Harvard president's disparaging comments about women's qualifications as scientists. Subsequent articles dealt with the president setting up a multi-million women's studies program. This study did not determine what articles the respondents read or what the respondents thought about the reputation. Quality criteria cited least by the media was placement success in academia, percent of classes under 20 students, percent of classes with 50 or more students, years to complete doctorate, average publications and students research produced.

Many reputation articles focused on the present status of a university's reputation. They analyzed how the reputation translated into popularity, scorn or money. Few articles reported on how the reputation translated into quality. Second on the list was

the reputation of professors, with 41 cites. Therefore, more than 100 articles dealt with the reputation of the university or one of its employees – not specifically a trait of quality, but a supposed indicator of quality.

Table 15

Media Ranking of Evaluative Terms

The following table details the number of times the media outlets mentioned evaluative terms in connection to any of the 10 universities, and the terms' rankings.

	# of cites
1. Academic reputation	69
2. Reputation of professors	41
3. Financial resources	35
4. Research produced	23
5. Alumni giving rate	19
6. Sports/extracurricular programs	18
7. Student academic ability (fellowships)	18
8. Favorable press coverage	17
9. SAT/ACT percentile scores	16
10. Alumni achievements	15
11. Library resources	15
12. Teachers with diverse background	14
13. Department research	13
14. Selectivity	11
15. Number of graduates produced	10
16. Top 10% of high school class as students	10

(table continues)

# of cites

17. Placement success outside academia	8
18. Large student population	7
19. Faculty grantsmanship	6
20. Student tolerance of cheating	5
21. Teachers' availability outside of class	5
22. Number of faculty	5
23. Percent of faculty members with published articles	4
24. Percent of full-time faculty	4
25. Acceptance rate	4
26. Faculty dedication to teaching	4
27. Student/faculty ratio	3
28. Number of graduate students	2
29. Freshman retention rate	2
30. Student research produced	2
31. Median number of years to complete doctorates	1
32. Average publications	1
33. Placement success in academia	0
34. Percent of classes under 20 students	0
35. Percent of classes with 50 or more	0

To further examine the treatment of items by the media, the items were grouped into the same five factors that resulted from the student survey's factor analysis. Then, the number of media cites for the items in each factor were combined into an overall number. This combination of media cites gave insight to how many times the media mentioned items in the five factors. Since the factors contained a varying number of items, a statistic of media cites per items was produced by dividing the number of cites by the number of items in the factor. This further showed how much the media covered each factor.

Table 16

Media Criteria Cites of Factors

	Reputation & prestige	Student & faculty achievement	Institution attributes	Classroom attributes	Admission
Total media Cites of items Within factor	309	41	24	19	14
Mean cites Per item	23.76	5.13	4.8	2.71	7.00

In light of student surveys and the factor analysis produced by those surveys, the media covered "reputation & prestige" three times more than the other factors combined. The media ranking of evaluative terms in Table 7 indicated that this would be the case. The 13 items in the "reputation and prestige" factor were located in 13 of the top 14 spots in the media ranking. Alumni achievements (10^{th}) is the only item in the top 14 spots that was not part of the "reputation and prestige" factor. Although there are more items in this factor than the others, the mean cites per item statistic shows the disparity is still large. Media writers wrote very little about achievements of student and faculty. They also wrote few articles about admission policies or "institution attributes."

The result of the ranking and factor grouping shows that the media focused on reputation-related issues at the expense of other, more-tangible items. As stated before, most of the items in the "reputation & prestige" factor indicate perceived quality instead

of quality itself. Therefore, instead of covering issues that directly affect students, media space was used to build or weaken reputation.

Research question #3: Is there congruence between what print media represents as quality and what students perceive as quality in higher education?

The sets of data from the student surveys and media were compared to see if both students and the media placed similar amounts of importance on items of quality. The first comparison involved a rank-difference test, and the second comparison involved a Pearson r correlation using the five factors resulting from the factor analysis. The student responses to the 35 items were ranked from highest mean to lowest mean (see table 11). The media mentions of items were ranked from most cites to least cites (see table 15). Using SPSS, the two sets of data were compared in a Spearman rank-difference rho test. The results show a weak to moderate positive correlation between student rankings and media cites (r_S=.309, p>.05). Students and media agreed on the importance of reputation. It was ranked first by both groups. The two groups also agreed that reputation of professors ranked next in importance. The quality item of financial resources also received a high ranking from both students (4^{th}) and the media (3^{rd}). Students and the media disagreed on the importance of many of the other items. Students ranked placement success outside academia 3^{rd}, but the media only cited this item eight times, which resulted in a rank of 17. Students placed high importance on faculty dedication to teaching with a ranking of 5^{th}, but the media ranked it 26^{th}. The media placed high importance on an institution's financial resources by ranking it 4^{th}. Students ranked it 27^{th}.

Table 17

Rank-difference Correlation Between Student Survey Results and Media Cites

			student	media
Spearman's rho	student	Correlation coefficient	1.0000	.309
		Sig. (2-tailed)		.071
		N	35	35
	media	Correlation coefficient	.309	1.000
		Sig. (2-tailed)	.071	
		N	35	35

Alpha = .05, **p <.001, * p<.005

The rank-correlation test clearly shows the disparity between the importance students place on items and the number of times those items are cited by the media. Aside from reputation and reputation of professors, the students and the media agreed on the ranking of only one other item. The difference between the rankings for fifteen items exceeded ten spots.

To further examine the congruence between the media cites and the student survey results, a correlation test was performed on the factors derived from the factor analysis. The 35 items used in the content analysis of media cites of the items were also placed into the five groups so valid correlation tests could be performed. The five factors from the student surveys and the media were correlated using Pearson's r to determine if

students and the media use the same criteria in determining quality. Pearson's r attempts to understand the relationship between a continuous dependent variable and a continuous independent variable. The relationship between the two items can be positive or negative, and zero correlation indicated no linear relationship. Magnitude indicates degree, while sign indicates directionality.

The analysis shows that students and the media were correlated to a statistically significant level for the first factor – "reputation & prestige." This factor had a statistically significant correlation ($r = .959$, $p < .01$). Both students and the media considered reputation and prestige as important items. Raw scores indicate that academic reputation was considered most important by students, and academic reputation was mentioned many more times than any other criteria by the media. Eighty-one percent of cites by the media concerning quality were of a criteria in the "reputation & prestige" factor. This explains the high correlation between the factor and the media articles.

Table 18

Media Criteria Cites Correlation to Criteria Factors

	Reputation & prestige	Student & faculty achievement	Institution attributes	Classroom attributes	Admission
Media cites	.959**	-.116	-.071	-.087	.008

Alpha = .05, **p <.001, * p<.005

For the other four factors, the correlations were weak. Three of the four had weak negative correlations. For "student & faculty achievement," as students claimed criteria within that factor were more important, the media reported on those attributes less. The same effect was true for "institution attributes" and "classroom attributes," but not to a significant level. The "admission" factor had the weakest correlation with media cites of quality, with almost no direction negative or positive.

The results of the rank-difference correlation and the Pearson r correlation show that reputation-related items are important to students and cited often by the media. This is especially true for the academic reputation and reputation of professors items. Both were ranked 1st and 2nd by the students and the media. Beyond that, the students placed far more importance on those two items than any other items. The media also cited those two items far more often than any other items. Within the content analysis, the students and the media agreed on the importance of the "reputation & prestige" factor. Several items in that factor were ranked highly by both students and the media. Also, the test of

congruence between the students and the media for this factor was very high. Congruence was low for the non-reputation items. In the rank-difference test, students and the media disagreed widely on the importance of these items. In the Pearson r correlation, there was little congruence between the students and the media in the four other factors ("student & faculty achievement," "institution attributes," "classroom attributes" and "admission"). The data indicate that while there exists high congruence between students and media for reputation of institutions, there is low congruence for all other items.

Research question #4: Relative to other sources of information, to what extent do students get their information from the media in relation to their perceptions of university quality?

To answer question #4, data from the second part of the student survey was first analyzed through descriptive statistics and then correlated with the five factors to see what factors were sought by students through different levels of media use in gathering information, perception of media influence in making decisions and exposure. The second part of the student survey asked students to describe media intake indicators. The first two questions determined how much students used the media to gather information and how much they perceived to be influenced by the media. The next three questions analyzed how much the students paid attention to media. Answers from these three questions were combined into one variable – "exposure."

Spearman's Rho was then used to correlate the three indicators – media use, perceived influence and media exposure — to the five quality criteria factors. Spearman's Rho was chosen because the three media use/intake indicators cannot be assumed to have equal-interval data. The data are ordinal. The correlation was performed on SPSS looking for a significant correlation of at least .05.

Table 19

Media Use Correlation to Criteria Factors

	Reputation & prestige	Student & faculty achievement	Institution attributes	Classroom attributes	Admission
Student use Of media	.118*	.104	.132	.172*	-.120

Alpha = .05, **p <.001, * p<.005

The results of the first test show that there is a significant but weak correlations between how much students use the media to gather information about issues and their use of "reputation & prestige" (r_S = .118, p < .005) and "classroom attributes" factors (r_S = .172, p < .005). The more students use media to make decisions, the more they use items in those two factors to judge institutional quality. The results from the content analysis provide some explanation for the "reputation & prestige" correlation. Most cites from the media concerning representations of universities used the items in that factor. Therefore, students gathering information about a university would be more likely to see those terms used to represent quality. The correlation between media use and "classroom attributes" may indicate that students seek information even if the media ignores it. The media ignored most items in the "classroom attributes" factor. However, students used some of those factors to perceive quality. For example, students agreed that student/faculty ratio was an important factor in perceiving quality. Even though the media only used this term three times, students who heavily used the media to gather

information sought out this type of information and used it in perceiving quality. Despite the significance of correlations between media use and two of the five factors, the correlations are weak.

Table 20

Perception of Media Influence Correlation to Criteria Factors

	Reputation & prestige	Student & faculty achievement	Institution attributes	Classroom attributes	Admission
student perception of media influence	.087	-.102	.021	.123	-.114

Alpha = .05, **p <.001, * p<.005

The results of the second correlation found no significant correlation between how much students perceive they are influenced by the media to make decisions and the five quality factors. Students who thought the media greatly influenced their decision-making did not differ in their survey answers from those who did not think the media influenced their decisions. As shown in the data analysis of the survey, students did not vary greatly in their reaction to the statement: “I use the media in making decisions about issues or topics.” The reason for the small standard deviation could be the self-reliance of students. It could also be the desire of the respondent to appear self-reliant. A student might be reluctant to say the media influences decisions, because this may be a sign of reliance on something other than their own rationale (Roessler, 1999; Tsfati, 2003). Like the media use correlation, there was some positive correlation between media influence and the “reputation & prestige” and “classroom attributes.”

The third data test used the levels of exposure as described in Part II of this chapter. To review, the three questions gauging student use of the media was combined into one variable – Exposure. The level of exposure to media ranged from "low" exposure (0-7 hours of exposure to media a week) to "medium" (8-16 hours) to "high" (17 or more hours).

The third data test found significant but weak correlations between media exposure and the "reputation & prestige" ($r_S = .148$, $p < .005$), "student & faculty achievement" ($r_S = .156$, $p < .005$) and "classroom attributes" ($r_S = .208$, $p < .001$) factors. All significant correlations were positive.

Table 21

Exposure Correlation to Quality Factors

	Reputation & prestige	Student & faculty achievement	Institution attributes	Classroom attributes	Admission
Student Exposure to Media	.148*	.156*	-.021	.208**	-.001

Alpha = .05, **p <.001, * p<.005

Students exposed to more hours of media messages were more likely to use these three factors – “reputation & prestige,” “student & faculty achievement” and “classroom attributes” -- to construct perceptions of university quality. More exposure to media had a small negative effect on how much the students would use “institution attributes” to perceive quality, and it had nearly no effect on how students use “admission” items in perceiving quality. The student perceptions of quality and media representations of quality give some explanation of the correlations. The three factors with significant correlations included items that students considered important. Even if the media did not mention these items often, students exposed to greater amounts of media messages looked for mention of these items. The other two attributes did not include items that were considered important by students. The amount of exposure to media did have a correlation with the way students used these factors.

As a group, students who use the media to a greater degree seek information on "reputation & prestige," "classroom attributes" and "student & faculty achievement" factors in order to perceive university quality. However, the correlation in all three tests was weak, even though some correlations were significant. These data indicate that media use, influence or exposure did not correlate strongly with how students used the 35 survey items in perceiving university quality.

Research question #5: Do coverage of higher education institutions and attention to media by students affect the way students perceive quality of higher education institutions?

To answer question #5, the sets of data from the student surveys and media were compared to see if student ranking was related to the number of times the university was cited by the media. Then, the students' intake of media messages was examined to see if students with different levels of media exposure ranked universities differently. The first comparison involved a rank-difference test, and the second comparison involved a Spearman rho correlation using the different levels of media exposure. First, the rankings of the universities by the students were compared to the number of times universities were mentioned by the media. The universities were ranked from most cites to least. The Spearmon rank-difference correlation coefficient compared the two sets of data.

The results show a strong positive correlation between student rankings of universities and media cites of universities (r_S=.903, p<.001). The raw data reflect this, as the rankings of universities were similar in both sets. Students ranked Harvard 1st and Yale 2nd, and the media cited Harvard the most and Yale the second-most. Both also agreed on California Institute of Technology – it was ranked 5th by students and received

the 5th-most cites from the media. Both agreed on BYU (7th by students and 7th most cites by media) and Oregon (10th by students and least cites by the media). Three universities had a difference of only one spot between the two sets of data. Michigan was ranked 4th by students and 3rd by media. Students and the media transposed Wake Forest and Missouri. Wake Forest was ranked 8th by students and 9th by media, and Missouri was ranked 9th by students and 8th by media. The strong positive correlation does not imply causation, but does show the closeness between how students rank universities and how much attention the media gives to universities.

Table 22

Rank-difference Correlation Between Student Survey Results and Media Cites

			student	media
Spearman's rho		Correlation coefficient	1.0000	.903**
	student ranking	Sig. (2-tailed)		.000
		N	10	10
		Correlation coefficient	.903**	1.000
	media ranking	Sig. (2-tailed)	.000	
		N	10	10

Alpha = .05, **p <.001, * p<.005

To further examine the relationship between students' ranking of universities and media cites of universities, students' exposure to media was considered. The Spearman's Rho correlation was again used because the ranking of universities and levels of student exposure were both ordinal and not equal-interval data. By grouping students into levels of media exposure and measuring the difference that has on their quality perceptions, the test determined if the media attention is associated more closely with the agenda of those who pay more attention to it.

Table 23

Exposure Correlation to Student University Ranking

	CIT	Emory	Har-vard	Wake Forest	Mich-gan	Miss-ouri	North Caro-lina	Brig-ham Young	Ore-gon	Yale
Expo-sure	.070	.177*	-.110	-.125	-.159*	-.104	-.160*	.212**	.173*	.213**

Alpha = .05, **p <.001, * p<.005

Because a higher-ranked university was assigned a smaller number by the students, a negative correlation indicates that as students' attention to the media increases, the university's ranking decreases. Therefore, attention to media was related to better rankings of Harvard, Wake Forest, Michigan, Missouri and North Carolina and worse rankings of California Institute of Technology, Emory, Brigham Young and Oregon.

The negative correlation is significant (p<.001) for Michigan, North Carolina and Oregon. However, the correlations were weak. The number of articles in the media helps describe the correlation more fully. Overall, students ranked Michigan 4th and North Carolina 6th. However, students with greater exposure to media ranked these two schools higher. The number of media articles about Michigan was 409, the 3rd most behind Harvard and Yale. The media mentioned North Carolina 4th most behind Michigan. Agenda setting theorists would say that students who were exposed to more media had

better chances of seeing articles about Michigan and North Carolina, and therefore that affected the way they ranked those two universities. However, even though the correlation is significant for these three universities, it is still a weak correlation. Also, one cannot assume direction in a correlation. Students who were exposed to more hours of media messages ranked Emory, Brigham Young and Yale lower to a statistically significant but weak level. Overall, the correlations between how much students were exposed to the media and how they ranked universities were weak.

Summary of Findings

The data from the student surveys and content analysis found congruence to varying levels between student perception and media representation of quality. These areas of congruence are best viewed in terms of the questions posed.

Research question #1:What criteria do students use in their perceptions of the quality of higher education institutions?

Data analysis indicates that:

- Students placed more importance on academic reputation than any other item in perceiving university quality.
- Students also placed importance on another reputation-related item – reputation of professors.
- Students placed more importance on items that impact them directly, such as student/faculty ratio.
- A factor analysis can group the 35 items into five factors – “reputation & prestige,” “student & faculty achievement,” “institution attributes,” “classroom attributes” and “admission.”

- Several items rated highly by students were placed in the "reputation & prestige" factor.

Research question #2: In light of those criteria, how does the print media represent quality?

Data analysis indicates that:

- About 10 percent of all the articles written about the 10 universities in the study included evaluative terms found in the student survey.
- The media cited academic reputation more than any other item when representing university quality.
- The number of times the media cited a reputation item – either academic reputation or reputation of professors – accounted for 31 percent of the cites of all quality items.
- When items were placed into the five factors derived from the student survey, the media cites of items in the "reputation & prestige" factor accounted for 88 percent of all cites of survey items.

Research question #3: Is there congruence between what print media represents as quality and what students perceive as quality in higher education?

Data analysis indicates that:

- A weak to moderate positive correlation exists between how students rank items and how many times the media cited those items.
- Students and the media agreed that academic reputation and reputation of professors were the top two items tied to perceived university quality.

- The students and the media also placed much importance on financial resources as an item that indicated quality to them.
- Many items that students perceived as important were rarely cited by the media.
- The importance students placed on items in the "reputation & prestige" factor had a strong congruence with how often the media cited items in that factor.
- The importance students placed on items in the other four factors had a weak congruence with how often the media cited items in those factors.

Research question #4: Relative to other sources of information, to what extent do students get their information from the media in relation to their perceptions of university quality?

Data analysis indicates that:

- A significant but weak positive correlation exists between how much students use the media to make decisions and the "reputation & prestige" and "classroom attributes" factors.
- Very weak correlation exists between different levels of student perception of media influence and the five factors.
- Significant but weak positive correlations exist between different levels of exposure to media and the "reputation & prestige," "student & faculty achievement" and "classroom attributes."

Research question #5: Do coverage of higher education institutions and attention to media by students affect the way students perceive quality of higher education institutions?

Data analysis indicates that:

- There exists a strong positive correlation between student rankings of universities and media cites of universities.
- The students ranked Harvard and Yale as the top two universities, and the media cited those universities the most.
- The level of media exposure had a weak correlation with how students ranked the 10 universities.
- Students who were exposed to more media than others ranked those universities with more media cites higher than others. However, the correlation between the student exposure and the media ranking was weak despite being significant.

Overall, the data indicate a close relationship between how students place importance on reputation-related item s and how the media places importance item on those same items. The data also indicates that there exists little congruence beyond the reputation items. The students and the media also have a strong correlation between how they rank sample universities in terms of quality. However, the data indicate that different levels of media use, perception of influence and exposure have little congruence with how students construct perceptions. The results gauging congruence between student use of and exposure to media were weak correlations. However, some areas of congruence were deemed statistically significant, and thus worthwhile in understanding the overall relationship among items related to the influence of the media.

Chapter Five

This study examined the way students perceive quality, the way media represents quality and the congruence between the two. It also estimated the level of congruence between the media treatment of universities and students' rankings of those universities. Data analysis revealed some congruence between student perceptions of university quality and media representations of university quality. The congruence is strong in some areas and weak in others. Implications from the findings are put forth in this section. The first section comprises statements about associations, followed by a summary of implications for all relationships in the study. The second section summarizes the relationships as they pertain to the problem statement of this study. The third section includes recommendations specific to the nature and direction of research on this subject. The final section includes recommendations for students, the media and universities as a result of this study.

Associations

The associations that resulted from tests of congruence shed light on how students and the media treated items and universities. The following conclusions about these associations can be made:

Reputation plays a key part in students' perceptions about university quality.

The raw result of the surveys and the factor analysis show that students used reputation-based items and impact-based items most when perceiving quality of higher education institutions. Students placed the most importance on academic reputation of a university. This supports the role of perceived reputation in student decision-making in the literature review. Students put far more weight on academic reputation than any other

item in the survey. Sixty-one percent of students highly agreed with the statement, "I used academic reputation to determine the quality of a higher education institution." Out of 183 students, not one disagreed with that statement. At least one student disagreed with every other item in the survey. Students also placed much importance on another reputation item – reputation of professors. When the factor analysis was performed, these two items were part of the "reputation and prestige factor." This factor also included items that indicate a university's prestige. These items do not necessarily reflect the perceived quality of a university or characteristics of that university. However, five of the items in the factor were rated highly by the students. This indicates that students are interested in the perception of the university. Students also placed importance on items that impacted them directly. These included such items as placement rate outside academia, faculty dedication to teaching and student/faculty ratio. Interestingly enough, students did not place much importance on two other items that would affect them – percent of classes under 20 students and percent of classes with 50 or more students. The students' fixation on reputation is matched only by the media's fixation on reputation.

The mention of reputation in connection with one of the 10 universities occurred 69 times – far more than any other item in the study. In fact, the mention of reputation occurred more than 19 other items combined. This also supports studies in the literature study, which mentioned that the media is more concerned with reputation than other representations of quality. The media also mentioned the reputation of professors more than the other 33 items. This fixation with reputation and prestige was further highlighted when cites of media were grouped into the five factors resulting from the student survey

factor analysis. The 13 items in the "reputation and prestige" factor were mentioned far more than items in the other four factors. The high number of cites within this factor indicates that the media was largely concerned with reinforcing universities' already-existing reputation by representations of reputation and prestige-related items.

Even less space was devoted to "classroom attributes," even though some of these items were determined to be important by students in the survey. Students and institutions are heavily concerned with in-the-classroom issues such as student/faculty ratio, freshman retention rate and percent of full-time faculty. However, the media almost totally ignores items in this factor.

Students and the media agree about reputation and little else.

The rank-correlation test showed both the agreement of students and media about academic reputation and reputation of professors, and the amount of disagreement about many other items. A rank-difference test showed weak congruence between how students rank the items in terms of importance and how often the media cited those items. Beyond academic reputation, reputation of professors and financial resources, students and media did not place the same importance on many items. In several instances, students placed much importance on an item, but the media mentioned the item only a handful of times in the course of a year. For example, students ranked placement success outside academia 3rd, but the media only cited this variable eight times, which resulted in a rank of 17. Also, students placed high importance on faculty dedication to teaching with a ranking of 5th, but the media ranked it 26th.

The media ignores factors other than reputation and prestige

Congruence between student survey responses and media cites reaches a different level when the factors are correlated. The congruence between media cites of items in the "reputation and prestige" factor had strong congruence with the same factor derived from the student survey responses. The .959 correlation showed that both students and the media held similar importance for this factor. Just as the media and the students agreed strongly on the importance of this factor, they disagreed about the importance of the other factors. The level of congruence for those factors was weak. The only other positive correlation was the "admission" factor, but it was only a correlation of .008 ($p>.001$). The other three factors had weak negative correlations. This was evident in the "student and faculty achievement" factor. Even though the factor contained items that were considered important by students, the media largely avoided reporting on those items. So as students placed more importance on these items, the media was less apt to report on them.

Students with different levels of media use, perception of influence and media exposure do not differ much in the way they construct perceptions of university quality.

Relative to other sources of information, the level of importance students put on items referring to perceived quality did not change much when factoring in student use, perception of media or exposure to media. The results of these three tests show that perceived influence, media use and media exposure are not closely tied to the way students use factors in perceiving university quality. Those students who use the media and are exposed to the media placed more importance on the "reputation and prestige" factor. Also, students who use the media to a greater extent than others were more likely to place importance on items in the "classroom attributes." Those students who were

exposed to greater amounts of media messages were more likely to place importance on items in the "classroom attributes" and "student & faculty achievement" factors. The results of these tests indicate that the media did not have a strong correlation with the students' decision-making processes about perceived university quality. A strong correlation would have brought up arguments about media effects on how students perceive quality and how they rank universities. Weak correlations in this part of the study indicate that students used means other than the media to perceive university quality. Although some researchers (i.e. Iyengar & Kinder, 1987) found that media strongly shapes people's views, this study's findings do not indicate the same relationship between students and the media. It is true that the consistency and repetition of media messages about universities were related to how students ranked those universities. But Baran's statement (2002) that these messages signal importance to the student cannot be supported due to the tests on student exposure and use of the media. Lang & Lang's study (1966) in Chapter 2 may indicate one reason for the high correlation on one level and the low correlation on another level. The researchers purported that agendas are set over time, not just from year to year.

Students and media agree on university rankings, but the relationship may not be due to agenda setting.

At first glance, student rankings of universities and media cites of universities have strong congruence. The rank-difference shows a strong and significant correlation between how students ranked universities and how often the media cited those universities. Harvard is a prime example. Students ranked Harvard first in terms of quality by a large margin. The media mentioned Harvard far more than any other

university. Student rankings of universities was highly congruent with media cites of universities. Some students who spent more time reading or seeing media messages ranked Oregon lower than did other students who spent less time reading or seeing media messages. High media-use students saw more cites of other universities. Therefore, the lack of coverage could be correlated to a lower student perception of quality. The same line of reasoning can be used for describing the lack of significance for media exposure and Harvard's ranking. As shown in the data analysis, Harvard was ranked 1st consistently by almost all students. It was never ranked lower than 3rd. Although students who paid more attention to the media might have ranked Harvard higher due to the high number of articles about the university, those who paid little attention to media ranked it high anyway.

At this point, a researcher could make an argument that the media "set the agenda" for the students. The agenda setting theory in relation to this study would purport that the students ranked the universities like they did because the media cited those universities in a similar fashion during the previous year (Cohen, 1963; Funkhouser, 1973). However, this study cannot support that statement for two reasons. First, the test of congruence was a non-directional correlation. The rank-difference test cannot indicate cause-and-effect. Even though articles in the year previous to the survey were studied, nothing proves that the students did or did not rank these universities as a result of the media's treatment of the universities. Second, an additional test tends to discredit the theory that media attention changes the attitudes of people as it pertains to this study. Students were classified into different levels based upon media exposure. Then, a test

was performed to media exposure impacted perception of quality. The theory of agenda setting would be supported if:

1. universities that were cited often by the media…
2. received better rankings…
3. by those students who were exposed to more media.

It would also be supported if…

1. universities that were received little attention by the media…
2. received lower rankings…
3. by those students who were exposed to more media.

The test showed that this was not the case. Significant correlations were found in six instances, but the correlations were weak. No correlation between exposure to the media and a university's ranking was greater than .213. The results of the test showed that the expected relationship existed. For example, universities mentioned often by the media received better rankings from students exposed to high levels of media. Also, universities mentioned less frequently by the media received poorer rankings from those students exposed to many hours of media. Even though the relationships existed, the relationships were weak. Therefore, one can conclude that the congruence between how students rank universities and how media cite those universities is strong, but the theory that the media caused these student rankings cannot be supported.

Even though the exposure test contradicts the theory of agenda setting, the strong correlation from the rank-difference test still exists. The correlation, it seems, is too strong to be explained as coincidence. Something besides straightforward agenda setting is at play in this relationship. One possibility could be second-level agenda setting. This

theory purports that the media may indirectly people's views (Hester & Gibson, 2003). For example, Student A may read a story about Harvard's reputation and then tell Student B about it. One study found that in the days after the announcement that National Basketball Association star Magic Johnson had AIDS, the topic was considered most important by people who had little exposure to media. The study theorized that these people were told it was the most important topic by people had did have exposure to the media (Basil & Brown, 1994). Another possibility could be that students get their information from sources other than the media. Yet another possibility is that both the students and the media are accurately representing the quality of the institutions by the way they think about or report on those universities. Nevertheless, the similarity between how students rank universities and how the media reports on those universities is strong enough to be considered related to some extent.

Implications

Student criteria in perceiving quality and media representations of criteria have strong congruence with respect to university reputation. Students say reputation plays a big part in their perception of university quality. Media outlets report on the reputation of a university more than any other criteria. The promising result of the study is that students and media agree that one criterion is more important than any other. The problematic result is that the criterion – reputation – is not so much an indicator of quality as it is an indicator of perception of quality. Students, therefore, perceive that perception is most important. The media also highlights the perception of a university. This may contribute to the vicious circle of perception about universities. A university with a good reputation will garner many media cites about its reputation. In turn, students may use

those cites as a main indicator of an institution's quality. The circle will continue, even if the actual quality of the institution decreases.

This study also finds little congruence for non-reputation indicators of quality between students and media. For example, students considered placement rate of graduates as the third most important indicator of institution quality. However, in tens of thousands of articles over the course of a year, the media mentioned placement rate just eight times. Results from the student surveys show that students place importance on media information. However, in many instances they did not get any information they wanted.

The study also found that media use, perception of use and exposure did not have strong congruence with the five student quality factors. The study found that exposure to media did not relate strongly to the way students ranked universities in terms of quality. Students use either their own knowledge or means other than the media to construct perceptions about university quality. This contradicts the theory of agenda setting, which purports that the media should set the agenda of students in perceiving university quality (Behr & Iyengar, 1985; Demers et al., 1989).

These findings help shed light on the problem of media influence, student "fit" and university resources in relation to quality perception. In the first chapter of this study, three problems were considered as a result of disconnects among student needs, media coverage and university actions in relation to university quality perceptions. The data and tests of congruence addressed these problems:

1. The first problem was "lack of fit." This occurs when a student makes a decision about university quality using information that does not accurately reflect what

he or she believes to be indicators of quality. If a student chooses to attend a university based on that non-relevant information, he or she may not "fit" and therefore drop out. This study indicates that the media may contribute some to this lack of fit. While the students and the media agreed that reputation and reputation-related items were important in making perceptions of quality, many items considered important by students were ignored by the media. Students seeking information on student/faculty ratio, for example, did not find much help from the media. The result is that students may chose universities based mainly on the most visible item mentioned – reputation. However, as studies in Chapter 2 mentioned, reputation does not translate into quality. It also does not translate into "fit" (McDonough, 1998).

2. The second problem was "waste of resources." Universities may spend tens of thousands of dollars on materials promoting the campus. However, if that effort does not translate into better perception of quality or students that "fit," then the money is wasted. The rank-difference test for Question 5 shows that the way students rank universities is closely related to how often the media cite those universities. This may indicate to universities that it is worth the effort to garner publicity. However, the publicity may not directly translate into better perception of quality by the students, as was shown by the second test of Question 5. So the problem exists if a university considers mass publicity as its only method to raise perception of quality. Targeted information about what students say they want in order to perceive quality would be more effective.

3. The third problem was "too much media power." Making decisions based largely or solely on information from the media allows the media to give the main representation of quality. No one entity should have that much power over individual

decisions. This study indicated that the media did not have too much power over students in relation to their perceptions about university quality. Although students and the media showed strong congruence in the areas of reputation items and university rankings, most data indicated that students formed their own opinions. This was true for the rho correlation test in Question 5, which indicated that different levels of exposure to media did not strongly affect how students ranked universities.

Implications for Future Research

As with any survey-based study, it must be remembered that "responses are opinions or perceptions and may or may not be consistent with fact" (Gappa & Pierce, 1980). One should keep in mind that the basis for half of this study rested on the thoughts of college freshmen. Also, the answers from students may have been influenced by experiences in the students' college careers. Although they were in their first year in college, the students may have already altered their views about quality and reputation due to events in their short college career. What one thinks about a process before it happens differs from what one thinks about a process once it is underway. What students perceive is quality in higher education before they go to college may be different from what they perceive is quality once they are in higher education. In light of that, it is important to examine the limitations of this project and areas of future research.

Survey questions.

This study tried to assess the items students used to perceive quality. The items in the survey were extracted from other tests and measures of institutional quality and overall quality. However, the limitation of this study is that one cannot assume that these are all the items used by students in perceiving institution quality. Some items considered

very important by students may have been omitted from the survey. One cannot conclude that this is an overall summary of what students use in perceiving university quality. Further research in this area may require more comprehensive lists of items in the survey. Further research could also include a phenomenology that could qualitatively uncover items or sets of items students use in making decisions.

Reputation influence.

When examining the area of perceptions, it should be noted that the literature review found that perceived quality is not always the same as actual quality. Once a person focuses on reputation, he or she may make decisions based on perception instead of actual quality. An example of this would be college football rankings. A university may be highly ranked before the season begins. All decisions about the actual quality of the team itself use that pre-season ranking as a basis, even if the ranking is not a reflection of the actual quality. Students who do not have direct contact with a variety of universities may do the same when evaluating the quality of higher education institutions. This may be the case in how students ranked the universities. The limitation of this study is that there is no test to measure how much students used reputation in ranking those universities. It can be assumed they used it to a great degree, judging from results of other areas of the student survey. The survey was also not constructed to measure how much students used reputation to influence their other decisions within the survey. The survey could be reconstructed to focus more on the influence of reputation on students' decisions.

Supporting or refuting agenda setting.

Another limitation to this study is that it does not completely support or refute the theory of agenda setting. In fact, two tests concerning the same research question seem to contradict each other about the relationship of the media and people's decisions. In the rank-difference test, the media and the students agreed closely on how to rank universities. However, a test measuring the effect of media exposure on student rankings found that attention to media had little effect on how students ranked those universities. Both tests for this question were correlation tests. Correlation studies such as this do not predict causality. Therefore, one cannot conclude that the media did or did not affect student rankings, because there is no cause-and-effect test. One can only conclude that they are related. The second test does bring the theory of agenda setting into question, however.

The possibility exists that agenda setting is the wrong instrument for this study. Perhaps the complexities between student perception and media representation of higher education quality created too many barriers in correlating the two. Also, the possibility exists that the instrument was not strong enough to correlate the student perceptions and media representations. Finally, the possibility exists that the sample of students did not respond in a way that is indicative of the larger population. Despite these possibilities, the stronger explanation is that level of media exposure had little relation to the way students ranked universities.

`Further studies in this area and in the entire area of agenda setting should go beyond the correlation of how people rank items and how the media reports on those items. They should at least add the test of level of media exposure to see if that affects the

way people rank items. Further studies could also include qualitative components that explore how people use or do not use the media in their decision-making processes.

Suggestions for Action

In light of these findings, the following suggestions related to students, universities and the media are offered;

Students should look beyond reputation as an indicator of quality

Reputation is an indicator of perception and does not necessarily reflect on quality itself. Students should look to pre-season college sports polls as a lesson in the pitfalls of substituting reputation for quality. For many teams, the pre-season polls are an accurate prediction of where they finish the season. However, some teams that are highly ranked before the season lose several games and finish much lower in the rankings. Their actual quality was far less than their perceived quality. The same pitfall applies to actual university quality. If students use only reputation as an indicator of perceiving quality, then they may be disappointed by the actual quality of an institution.

Students should use more than the *U.S. News* as a guide for determining university quality

The *U.S. News & World Report's* annual Best Colleges edition is a useful tool in presenting statistics about universities. But students should be cautious about using the edition as a sole determinant for perception of university quality for two reasons. First, a "reputation score" makes up 25 percent of a university's overall score. This "reputation score" is compiled by questioning peer universities to rate that university's reputation. Therefore, students should realize that a university's ranking is heavily affected by the way a handful of other university administrators think about that university's reputation.

The "reputation score" has nothing to do with perceived quality itself. Therefore, students who use only the *U.S. News* to perceive university quality are building their perception of quality on the foundation of other people's perception of reputation. Second, the Best Colleges edition, like other media in this study, pays attention to quality indicator items ignored by students and ignores quality indicator items considered important by students. For example, three items in the *U.S. News'* formula for determining a university's score are "percent of classes under 20 students," "percent of classes with 50 or more students" and "alumni giving rate." Student survey responses showed that there exists little interest in these three items. Conversely, students placed much importance on placement rate of graduates and library resources, which are not part of the *U.S. News'* formula. Students need to be aware that a university's ranking is compiled using items they do not use in perceiving quality and leaves out information they consider important.

<u>The media should go beyond reporting on universities' reputations</u>

The media meets the students' desire for information about reputation. This in itself may be a problem of giving the audience what it wants rather than what it needs. In only reporting on institutions' reputations, the media is not serving the "public good" by representations of determinants of that reputation. The media may report on a university's reputation as a great pharmacy school, but it does a disservice to the audience if it never explains *why* the university is reputed to be a great pharmacy school. The media should question its use of the word "reputation" and whether it has information to support that reputation.

The media should include items that students consider important in its articles about universities

The media ignores other items at the students' expense. Out of thousands of articles about universities, the media reported on the 35 indicators a fraction of the time. Students used some of those indicators in perceiving quality. Therefore, students got little or no help from the media in their decision-making. The media should evaluate its use of items in the student survey. It should consider the benefit of using these indicators in its articles about universities. It should strive to get out of the rut of using reputation as its main representation of quality.

The media should resist comparing schools for the sake of comparison

Finally, the media should resist the temptation to compare universities in "horse-race" fashion. The *U.S. News & World Report's* Best Colleges edition is an established publication and, as said before, serves some purpose in getting data to decision-making students. But that does not mean other media outlets must report on the edition as the only authoritative voice on what universities are "better" than others. Many cites about universities in this study came from news stories resulting from rankings from the *U.S. News*. This reduces university representations to a horse race. The articles focus on who is behind and who is ahead, but never gets around to why someone is behind or ahead. This type of reporting also ignores the larger issue of whether universities should be compared in the first place, and why it matters if one university is considered to be "behind" another university. It would be best if the media resisting rankings and instead found ways to highlight individual universities' attributes.

Universities should get their name in the media

The data indicate that different levels of media exposure do not correlate strongly with how students rank universities. This would tend to refute the agenda setting theory that the media sets the agenda of those who pay attention to it. However, the rank-difference test showed that the way students ranked 10 universities is closely related to how often the media mentioned those universities. While agenda setting in this area may not exist, the student rankings and the media cites are still related. Universities should see this as a call to push for publicity. While this study does not support the idea of the media causing people to think a certain way, the fact is that universities with more cites were ranked higher by students. For universities, this indicates that getting the institution's name out to the mass media can only help.

Universities should get the right information to the students

This study mentioned "lack of fit" in its problem statement. If students seek information and do not get it, they may choose to attend a university that will not "fit" them. Universities want to acquire students that will "fit" and thus persist in their environment. Therefore, universities must make an effort to get the right information to the media. They must publicize items considered important by students in making decisions about perceived quality. For example, students agreed that they used placement success in their decisions about perceived quality. A university could highlight its placement services in a press release sent to the media. Universities that get the right kind of information to the media may end up with the right kind of students.

Summary of conclusions and recommendations

Students and the media agree on the representation of academic reputation and other reputation or prestige-related items as university quality. However, the agreements end there. There is low congruence between what students consider important in perceiving university quality and what the media represents as university quality. Students consider important those items that deal with reputation and impact them directly. The media is more transfixed on reputation-related items. These areas of disagreement lead to two pitfalls: 1) students who use the media in determining university quality do not receive the information they seek out and 2) the media is not serving the "public good" by giving the audience the information it desires. The fact that students and the media agree solely on reputation is troubling, since reputation is not in itself a true indicator of quality. Varying levels of student use of media, perception of media influence and exposure to media have little correlation with how students use items to determine university quality. This undercuts the theory of agenda setting somewhat. A proponent of this theory would believe that the media is powerful enough that students who use or are exposed to the media in varying levels would respond to questions in different ways. The theory is further put into question when a test found that varying levels of media exposure did not have a strong correlation with how students ranked universities. Nevertheless, student rankings of universities correlated strongly with how much attention the media gave the universities. This suggests that something other than straightforward agenda setting leads to people responding in similar ways to how the media reports on items. Several suggestions arise from the survey. Students who seek information on university quality should not settle for media reports of reputation or

university rankings. The media should make efforts to get past the "horse-race" technique of ranking universities and report on items that shed light on how universities build their reputations. Finally, universities should look to the media as a tool for disseminating the desired information to its audiences. This study sheds some light on how students perceive university quality, how media represents university quality, and the extent of congruence between the two. However, in answering some questions, new ones have emerged. Do students' fixation with academic reputation affect their reliance on other quality indicators in perceiving university quality? Why do students and the media agree on the ranking of institutions, especially if it seems that exposure to media has little effect on students' rankings? What is the process by which a student perceives university quality? Perhaps a phenomenology conducted in light of this research could attempt to answer these questions. Nevertheless, this study adds insight to how students, the media and universities combine in their efforts to construct perceptions about university quality.

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Appendix A

Consent Script Included in Survey Sent to Students

CONSENT SCRIPT

Feb. 11, 2005

Dear Student:

I am a graduate student under the direction of Dr. Robert Fox in the Educational Leadership and Policies Study Department at The University of Oklahoma. I invite you to participate in a research study being conducted under the auspices of the University of Oklahoma-Norman Campus and entitled Extent of Congruence Between Student Perception and Media Representations of Quality of Higher Education Institutions. This study surveys 600 students from three universities to determine how they judge quality of higher education institutions. The study then compares the students' results with media representations of higher education to determine if there is congruence between the two. The study also takes into account how much students pay attention to media in order to determine if an agenda setting effect exists.

Your participation will involve completing the enclosed survey and sending it back using the accompanying envelope. It should only take about 10 minutes. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time. The results of the research study may be published, but your name will not be used. In fact, the published results will be presented in summary form only. All information you provide will remain strictly confidential.

As an incentive, I have included an entry form for a drawing of a $100 gift card from amazon.com. One student from your campus will be chosen in a random drawing for the gift card. If selected, you will receive the card within four weeks of sending in your survey. Only 200 students from your campus were selected for this project. Therefore, you have AT LEAST a 1-in-200 chance of winning the gift card.

The findings from this project will provide information on the process of determining quality. You will be able to determine that one entity's definition of quality is different from another's. You may use results from this study to rethink the way you get information about a university. You may cast a more critical eye on reports and rankings from the media, especially if you know that the media is not giving you the information you desire. You may go to other sources of information in order to triangulate the information given out by the media. This insight will be offered with no cost to you other than the time it takes for the survey.

If you have any questions about this research project, please feel free to call me at 580-774-3083 or joel.kendall@swosu.edu. You could also contact the study's sponsor,

Dr. Robert Fox, at (405) 325-2769 or send an e-mail to rfox@ou.edu. Questions about your rights as a research participant or concerns about the project should be directed to the Institutional Review Board at The University of Oklahoma-Norman Campus at (405) 325-8110 or irb@ou.edu.

By returning this questionnaire in the envelope provided, you will be agreeing to participate in the above described project.

Thanks for your consideration!

Sincerely,

Joel Kendall
Doctoral student, ELPS
Department of Education

Appendix B

Drawing Form Included in Survey Sent to Students

DRAWING FORM

Included in survey mailing

Appendix C

Survey Sent to Students

Survey

Part 1
Please identify the factors you use in determining the quality of a higher education institution. Rate each item from 1 (highly disagree) to 5 (highly agree).

Complete the following statement:
I used _____ to determine the quality of a higher education institution.

1. academic reputation

highly disagree				highly agree
1	2	3	4	5

2. large student population

1	2	3	4	5

3. sports/extracurricular programs

1	2	3	4	5

4. teachers' availability outside of class

1	2	3	4	5

5. teachers with diverse backgrounds

1	2	3	4	5

6. number of faculty

1	2	3	4	5

7. number of graduates produced by the program

1	2	3	4	5

8. number of graduate students enrolled in the program

1	2	3	4	5

9. student academic ability (as measured by the proportion of students who received national fellowships or training support during their graduate education)

1	2	3	4	5

10. the median number of years taken by students to complete their doctorates in the program

1	2	3	4	5

11. the placement success rate among graduates in gaining professional employment outside academia

1	2	3	4	5

12. the placement success rate among graduates in gaining academic/research positions in Ph.D.-granting universities

1	2	3	4	5

13. library resources, as measured by a composite library index developed by the Association of Research Libraries

1 2 3 4 5

14. faculty grantsmanship

1 2 3 4 5

15. the amount of departmental research and development spending

1 2 3 4 5

16. the average publications attributed to the program in three consecutive years

1 2 3 4 5

17. the percentage of the faculty members with one or more published articles in the same time period

1 2 3 4 5

18. favorable press coverage

1 2 3 4 5

19. freshman retention rate

1 2 3 4 5

20. percent of classes under 20 students

1 2 3 4 5

21. percent of classes with 50 or more

1 2 3 4 5

22. student/faculty ratio

1 2 3 4 5

23. percent of full-time faculty

1 2 3 4 5

24. selectivity

1 2 3 4 5

25. SAT/ACT percentile scores

1 2 3 4 5

26. top 10 percent of high school class as students

1 2 3 4 5

27. acceptance rate

1 2 3 4 5

28. financial resources

1 2 3 4 5

29. alumni giving rate

1 2 3 4 5

30. research produced

1 2 3 4 5

31. reputation of professors

1 2 3 4 5

32. alumni achievements

1 2 3 4 5

33. faculty dedication to teaching

1 2 3 4 5

34. student tolerance of cheating

1 2 3 4 5

35. student research produced.

1 2 3 4 5

Part II

Please answer the following questions regarding your attention to media. Answer the following in terms of 1 (strongly disagree) to 5 (strongly agree).

1. I use the media in gathering information about issues or topics.

highly disagree				highly agree
1	2	3	4	5

2. I use the media in making decisions about issues or topics.

1	2	3	4	5

Please circle the answer that most closely reflects your opinion in the following questions.

1. How many hours a week do you take watch television?
    a. 0 hours
    b. 1-2 hours
    c. 3-5 hours
    d. 6-10 hours
    e. 11-16 hours
    f. 17-24 hours
    g. 25-35 hours
    h. more than 35 hours

2. How many hours a week do you read newspaper and magazines?
    a. 0 hours
    b. 1-2 hours
    c. 3-5 hours
    d. 6-10 hours
    e. 11-16 hours
    f. 17-24 hours
    g. 25-35 hours
    h. more than 35 hours

3. How many hours a week do you go to news sites on the internet?
    a. 0 hours
    b. 1-2 hours
    c. 3-5 hours
    d. 6-10 hours
    e. 11-16 hours
    f. 17-24 hours
    g. 25-35 hours
    h. more than 35 hours

Part III

Please rank the following universities from 1 to 10 in your terms of quality.

___California Institute of Technology
___Emory University
___Harvard University
___Wake Forest University
___University of Michigan
___University of Missouri
___University of North Carolina
___Brigham Young University
___University of Oregon
___Yale University

Appendix D

Truncated terms used for the Lexis Nexis search for quality items in newspapers and magazines

Thirteen news sources were searched using Lexis-Nexis. To ensure that the search returned articles related to the 35 items in the student survey, several terms and truncated words were entered into the search field. Lexis-Nexis then searched in all news articles for words, phrases or truncated words that matched the search terms. Truncation allows searches for variant forms of a search term. This is sometimes called stem searching because the stem part of a word forms the foundation of the search. A truncation symbol is added at the end of the stem (i.e. reputat*).

Academic reputation

Academic reputation or reputation or reputat*

Large student population

Student population or populat* or enrollment or enroll*

Sports/extracurricular programs

Sports and/or extracurricular or athletics or athletic or athle*

Teachers' availability outside of class

Teacher or instructor or professor or faculty and availability or meeting or meet* or office or sponsor or club or friend*

Teachers with diverse background

Teacher or instructor or professor or faculty and diverse or diversity or divers* or multicultural or race or gender or minority or underrepresented

Number of faculty

Teacher or instructor or professor or faculty

Number of graduates produced

Graduates or graduate or grad* or class or commence* or size or number

Number of graduate students

graduate student* or professional student* or master* or doctora* or class size or size or number

Student academic ability (as measured by fellowships)

Student* And academic ability or academic* or fellowship* or honor*

Median number of years to complete doctorates

Doctorate or ph.d and years or time or degree

Placement success outside academic

Placement or career or job* or hir* And grad*

Placement success in academia

Placement or career or job* or hir* And college or university or school or teach* or research*

Library resources

Library resources or library

Faculty grantsmanship

Teacher or instructor or professor or faculty and grants*

Department research

Department and research

Average publications

Publications or publicat* or publish* or author or writ*

Percent of faculty members with published articles

Teacher or instructor or professor or faculty and publications or publicat* or publish* or author or writ*

Favorable press coverage

Press coverage or press or media or cover* or article or story or releas*

Freshman retention rate

Freshman retention rate or retention rate or retent* or persist

Percent of classes under 20 students

Classes and 20 students or 20 or small or few

Percent of classes with 50 or more students

Classes or class* or course or section and 50 or 50 students or large or many

Student/faculty ratio

Student and teacher or instructor or professor or faculty and ratio or number or large or small or many or few

SAT/ACT percentile scores

SAT or ACT or test score*

Top 10% of high school class as students

High school or senior or freshmen or freshman and top 10 % or top 10 or achiev* or honor* or grade*

Acceptance rate

Acceptance rate or acceptance or admiss* or qualif* or score* or standar*

Financial resources

Financial resource* or financ* or money or dollars or $ or budget or expen* or

profit* or capital or expens* or aid or loan or fund* or grant or busin*

Alumni giving rate

Alumni or grad* or alum* And dono* or dona* or give or check or pay or $ or capital or campaign or giv* or rate

Research produced

Research or public* or publish* or author or writ* or study or stud*

Reputation of professors

Teacher of instructor or professor of faculty and reputat*

Alumni achievements

Alumni or grad* or alum* And honor* or name* or chose* or win or achiev* or award

Faculty dedication to teaching

Teacher or instructor or professor or faculty and teach* or class* or course* or eval* or dedic*

Student tolerance of cheating

Student and cheat* or law or rule* or plag* or copyr*

Student research produced

Student and research or public* or publish* or author or writ* or study or stud*

Appendix E

Pilot Study

Administrators at most universities spend much time and money trying to enhance the reputation of their respective institutions. A person could argue that a typical university spends more time boosting its image as a quality institution and less time ensuring the quality itself. But it is no wonder reputation is a big concern. Many students cite reputation as a major, if not the major, factor in their choice of college. In its annual rankings of America's colleges, *U.S. News and World Report* has a college's reputation account for one-fourth of the institution's overall ranking.

However, little thought is spent on how an institution's reputation is built and transmitted to prospective students. A student uses reputation as a benchmark in choosing a college, but that student must first gain information on each college's reputation.

If a person can determine that 1) students get most of their information on a university's reputation from mass media and 2) students' and mass media's perception of a university are similar, then he can propose that "agenda setting" exists in this instance – that is, mass media has set the agenda of how a university is perceived.

Agenda setting is the theory that mass media determine "what we think about." For example, if the national news reports on 1) drought, 2) hate crime, 3) breast cancer and 4) car crash, in that order, the agenda setting theory proposes that the public will rate those items the same way in terms of importance.

Methodology

This study was a phenomenology studying the process through which a student determines the reputation of a university. As Creswell notes, a phenomenological study "describes the meaning of the lived experiences for several individuals about a concept or the phenomenon (51)." Although the research involved a group interview, the meaning of experiences focused on individual experiences, along the lines of the psychological approach. The answers of the students, and the manner in which they agreed or disagreed during the interview, made it possible to group their reactions into comprehensive descriptions. According to the Duquesne Studies in Phenomenology, "From the individual descriptions, general or universal meanings are derived, in other words, the essences of structures of the experience (13)."

The interview was conducted in a well-lit laboratory. The participants sat on one side and at the ends of a long, wooden table, while the interviewer was seated alone on the other side.

The six interview participants attend a state university with an enrollment of 5,000. They were selected as a composite representation of the campus. The principal investigator either knew the students personally or knew of the students. He contacted each one by phone and detailed the interview. He also had them sign consent forms a week before the interview. The subjects were informed that they were being taped, that their names would not be used and that they could decline to be interviewed or stop the interview at any time.

All names and phone numbers of the subjects were kept inside a locked cabinet in a locked office and were not transported anywhere else. Once the interviews were

finished, the recorded tapes were put in the same locked cabinet and office and used there only.

After the interview, the principal investigator transcribed the interview. After the tape was transcribed, the names, phone numbers and tapes of the subjects were destroyed.

Five days before the interview, the participants learned of the interview topic. This gave them preparation time.

The participants all were college students ranging in age from 18 to 24. They were:

Ashley, 21, single white female, junior communication arts major from a city 40 miles from the college. Ashley came to the campus on a partial sports scholarship.

Brian, 22, single white male, senior accounting major from a small town 20 miles from the college. Brian finished in the upper third of his class and has many friends who also attend the same university.

Crissi, 19, single black female, sophomore speech major from a city 50 miles from the college. Crissi received a minority scholarship that was not bound to an institution. She graduated in the upper half of her class.

Darryl, 19, single white male, sophomore political science major from a city 30 miles from the college. Darryl was valedictorian of his class, and received a full tuition waiver from the university.

Eva, 24, married white female, junior marketing major from the same town as the college. Eva went to college for two years, and dropped out to get married. Her husband works in the same city.

Fiona, 20, single white female, senior elementary education major from city on the West Coast, four states away from the university. She followed her fiancé, who received a sports scholarship to the university.

The interview was audiotaped, and the interviewer kept notes of the participants' answers. Twenty initial questions were asked, with follow-up questions as directed by the answers of the participants.

Based on their initial answers, the participants were grouped into three major categories: 1) immersed believers – these students acknowledged that they paid attention to mass media messages and that this reliance on media for information shaped their opinions greatly; 2) immersed non-believers – these students acknowledged that they paid attention to mass media messages, but believed that these messages did not affect their opinions, even when mass media was their only source of information on a subject; 3) sprinkled believers – these students said they did not pay much attention to mass media messages, yet claimed that mass media still shaped their opinions; 4) sprinkled non-believers – these students neither pay attention to mass media nor attest to its power to shape their beliefs. Each student was asked how much time he or she allotted to listening to mass media messages each day through the traditional formats of television, radio and newspapers/magazines. The students were then asked if they thought that mass media influenced their decisions in that time. Students who spent more than five hours a day were labeled immersed. Students who spent less time than that were labeled sprinklers.

Questions were posed to determine student perceptions of other colleges. These questions asked students to rank the reputation of several colleges. The students' answers

were compared to two indicators: 1) the reputation rankings of the same universities by *U.S. News & World Report* and 2) the number of times each institution's name appeared in national publications in the past year. The students were then asked where they got their information for those rankings. If they stated that they got most if not all information from mass media, and their rankings mirrored the two indicators above, they were labeled intake reactors. They took in the information from mass media, and this shaped their opinion on university reputation. Those students who used mass media for the basis of their ranking judgment, yet did not rank the institutions the same as the two indicators, were labeled intake non-reactors. Those who did not use mass media as their main source of information on universities, yet still mirrored the two indicators in their rankings were labeled non-intake reactors. Students who did not use mass media as their main source of information and did not mirror the indicators in their rankings were labeled non-intake, non-reactors. Intake reactors and non-intake reactors supported the notion of agenda setting, the theory that states mass media sets the manner in which consumers think about issues. In this case, mass media determines what universities are most important through the number of times they are mentioned. This, in turn, sets a ranking.

Other questions delve into more mass media effects and perceptions. The students questioned about their trust in mass media. The responses of the students to this question were either positive or negative. Some students responded negatively to this question, yet was still labeled an intake reactor or non-intake reactor. This supports the theory within agenda setting concept that even those with negative perceptions of mass media are likely to allow it to set their agenda.

Analysis Strategy

Media influence

Media immersion

The first step was to determine how much time each student spent listening to, reading or watching mass media. The goal was to determine what students were surrounded almost constantly by mass media messages (immersed) and what students were not so tuned in to mass media (sprinkled). In the second interview, each student was asked to estimate how much time he or she spends daily paying attention to mass media. Before the interview, the cut-off was set at five hours a day.

Media attention

The students were also asked questions to find out if the students thought that mass media was influential in their decision-making. Students were asked questions concerning where they got information on universities, what they thought about the quality about that information, how they relied on mass media to shape their opinions about universities' reputations and how much credence they gave to those messages from the media. The questions were shaped so that the students were forced to either agree that mass media affected their decision-making or disagree, and then support their opinion.

Immersion/attention

Based on their answers in these areas, the students were placed into the four categories: immersed believers, immersed non-believers, sprinkled believers and sprinkled non-believers. This grid is designed to show students' susceptibility to mass media messages, and the effect mass media has on them. This grid does not involve

agenda setting, yet demonstrates the likelihood of agenda setting's existence. A immersed believer immerses himself or herself in mass media more than five hours a day, and admits that he or she uses mass media as a main source in gauging news, events or universities. This opens the door for the mass media to influence that person greatly when it comes to judging a university's reputation.

Media reaction

Mass media's coverage

The media reaction questions dealt more directly with the agenda setting theory. First, five universities were chosen – Stanford, Harvard, Cal State-Poly, Georgia Tech and Gonzaga. The universities were analyzed in two ways -- the reputation ranking of each university in the *U.S. News & World Report* Best Colleges edition, and the number of times each university was mentioned in mainstream newspapers. In the *U.S. News & World Report*, Harvard has the highest reputation ranking of all universities. Stanford is close behind. Cal State-Poly – which in 2000 was named the best college in the nation by the magazine – has a reputation score that is third out of the five universities. Georgia Tech has the fourth highest ranking of these colleges, and Gonzaga places fifth. The number of appearances each university makes in mass media mirrors these rankings. Through a Lexis-Nexis search, the seven national newspapers were searched for their mention of each university in the past three months. Harvard led the way, with 331 mentions. Stanford was a distant second, but ahead of the rest of the pack, with 209 references. Cal State-Poly and Georgia Tech were very close, getting 96 and 89 mentions, respectively. Gonzaga was only mentioned 19 times (and most of these mentions dealt with the basketball team's showing in the NCAA tournament).

Student rankings

The six students were asked to rank each of the five universities in terms of overall reputation. The students were instructed to think only in terms of reputation of each school. Student rankings were compared to the two indicators mentioned above.

Media reaction

Through follow-up questions about how the students made their decisions, they could be separated into another set of categories.

First, each student's ranking was examined to determine if his or her answers mirrored the two other indicators. If a student's rankings were exactly the same as the two indicators or had just two universities different from those indicators, the student was labeled as a "reactor." For example, if the student ranked Georgia Tech third and Cal State-Poly fourth, instead of the way the other two indicators ranked those two colleges, then the student is off just slightly in his rankings. This was especially important in the case of Cal State-Poly and Georgia Tech, who were separated by just a few news articles. Those students who ranked the universities significantly different than the two indicators – more than three universities ranked in different spots than the indicators' ranking – were labeled "non-reactor."

Media intake

Those who said most if not all their information came from mass media sources were labeled "intake." They took in the mass media messages and used little else in their decision-making. Those who said that mass media was not the main source for most of their information about a university were labeled "non-intake."

Reaction/intake

The analysis of both intake and reaction was set up in a grid, labeling a person as a "intake reactor," "non-intake reactor," "intake non-reactor" or "non-intake non-reactor." Students who fell into the "intake reactor" or "non-intake reactor" categories support the agenda setting theory. Since they voted exactly or closely to the correlation of news coverage proportions for each university, and they used mass media as their main source for the ranking, then agenda setting exists. Those who fell into the "intake non-reactor" category refute the agenda setting theory, since they paid attention to mass media yet came to a different conclusion. Those who fell into the "non-intake non-reactor" category neither supported nor refuted the agenda setting theory.

Results

Media immersion

Five of the six students – Ashley, Brian, Crissi, Darryl and Eva – said they spent more than five hours daily immersed in mass media, putting them in the immersed category.

Some went to the extreme, such as Brian.

> *BRIAN: I wake up to my radio alarm. I turn on the radio in the bathroom while I shower and get ready. I turn on the television as I get dressed. I listen to the radio in my car on the way to school. I wear headphones while walking to class. The moment I get home, the TV's on. It's on when I go to sleep.*

Only one student – Fiona – said she spent less than five hours immersed, so she was labeled as sprinkled. However, this student twice used cited television show "Dawson's Creek" in making a point.

Media attention

Five out of the six acknowledged that media shaped their opinions greatly.

ASHLEY: (Media is) very influential for out-of-state universities like Notre Dame and the University of Florida. It is kind of how you see them portrayed. It is like, if you could go anywhere, this is where you want to be. For me, it is really influential because I watch a lot of sports. I learn about schools by watching sports, not watching a movie. But like Notre Dame, it is all about tradition. The media really talks about its tradition. Then they have those spots for the universities during the games, showing them helping out children.

Immersion/attention grid

	Immersed	**Sprinkled**
Believer	Ashley Brian Crissi Darryl	Eva
Non-believer	Fiona	

Four students – Ashley, Brian, Crissi and Darryl – were placed in the immersed believer category. One student – Eva – watched, listened to or read mass media less than five hours a day, yet still believed mass media influenced her opinion greatly. She was therefore labeled a sprinkled believer. Only one student – Fiona (the Dawson's Creek fan) – said she spent less than five hours immersed and mass media and claimed that mass media had little effect on her opinions.

Student rankings

	U.S. News	**Media Cites**	**Ashley**	*Brian*	**Crissi**	**Darryl**	**Eva**	**Fiona**
Stanford	2	209	2	2	2	2	2	1
Cal State-Poly	3	96	4	3	5	3	4	3
Georgia Tech	4	89	3	4	3	5	3	4
Harvard	1	331	1	1	1	1	1	2
Gonzaga	5	19	5	5	4	4	5	5

The rankings of each student were compiled into a grid that also noted the reputation ranking of the *U.S. News & World Report's* Best Colleges edition and the number of mentions each university had in the past six months in the seven national newspapers.

All but one student ranked Harvard first, which corresponded with both indicators. The one student who ranked Harvard behind Stanford is Fiona, who had her reasons for the decision.

> *FIONA: I always hear about Stanford and Cal State-Poly in California. And I visited both those campuses. Stanford deserves their reputation. People and TV and newspapers talk about it, but that's for a reason. We went with Tiger Woods to visit Stanford, and the college just bowled us over.*

Others, however, fell in line with the "agenda setting" theory, relying on mass media to rate these universities.

> *BRIAN: All around. Educational news. They're always putting out papers. Academics, projects, studies, research. Harvard, you almost have to avoid hearing about.*
>
> *DARRYL: I hear about them on television and read about them in magazines. It's like if you're going to talk about a historic college in a movie or TV show, you're going to be talking about Harvard. And if there's a TV show set in California, the smartest kid on the show always*

goes to Stanford. Even if you've never been there, from TV you know the pecking order. The smartest one goes to Stanford, the next smartest to UCLA, the next one to USC. I've never watched a show where the smartest kid goes to Gonzaga, or Southwestern.

ASHLEY: You get news about them from media, TV and radio. From the time you're young you hear about Harvard and Stanford and Yale.

Reaction/intake grid

	Reactor	**Non-Reactor**
Intake	Ashley Brian Eva Darryl	Crissi
Non-intake	Fiona	

Brian's rankings were the same as the two indicators. Ashley's and Eva's switched Cal State-Poly and Georgia Tech. Darryl ranked Georgia Tech and Gonzaga differently than the two indicators. All four students are examples of a correlation between mass media influences and their perception of university reputation – the "agenda setting" effect. Since they used mass media for most or all of their information on these universities, and because they ranked them in a way that correlated with how many times each university was in the news, one could deduce that mass media shaped largely their judgment of the universities' reputations.

Fiona specifically stated that she used sources other than mass media to come to her decisions on university reputation (as her earlier statement shows). However, Stanford and Harvard were the only universities she switched. All others fell into the line of the two indicators. However, this is another strong indication of an agenda setting

correlation. Several previous studies on the subject found that even when people say they do not pay attention to mass media or use it to make decisions, their actions hint that they do.

Crissi was the only person who differed from the other five and the two indicators. Even so, she still ranked Harvard first and Stanford second, and those are clearly the universities with the most press coverage.

Media Trust

Agenda setting studies have also shown that even when people do not trust mass media messages, they accept them and even base opinions on them. This was the case with these students. After answering questions in which five of them responded in a way that suggests agenda setting, they almost all had negative opinions of the press.

> *ASHLEY: No. It shows all fraternities and sororities, like its one big party. It doesn't show real life. If it did, it would be a boring movie. But you don't get the real picture through the media.*

Brian, who ranked the universities in direct correlation to the amount of press coverage they received, had an opinion that is the same as critics of *U.S. News & World Report's* reputation ranking.

> *BRIAN: It doesn't give full coverage to all the schools. Only a few schools get publicity, the ones that are oldest, have the most clout and have the most money. So you get into this cycle that only the ones with the best reputation get the most coverage, and in turn their reputation gets better, whether the school is that much better or not.*

CRISSI: A lot of times, it's only the bad news…You never hear good stuff about smaller schools or schools that don't have that old tradition or reputation. The only way they get into the news is if something really bad happens. I know Seton Hall is a good school through some of my research, but the only way it got coverage lately is because of a fatal

fire in the dorms. And of course people only have bad news to associate with those schools, so they say, "Gosh, Seton Hall must be a death trap." It's not true. But that's the only thing people know about the school.

Discussion

This study corresponds with earlier literature that supports agenda setting. Five of the six students ranked universities' reputations in the general order of mass media coverage of the five institutions. Other studies indicate that the more a person relies on mass media, the more susceptible he or she is to the agenda setting effect. This study also supported that. The only student who had actually stepped onto one of the five campuses was also the only one who did not the university with the most news stories as the one with the best reputation. The other students had little or no other point of reference for the universities, and thus relied mainly on what they had heard, seen or watched about the institutions through mass media.

Agenda setting has its drawbacks, however. An argument against the effectiveness of the theory is that mass media simply follows the public's need. In this case, it may report on Harvard more extensively because the public demands that it should do so. Another argument against the extent of agenda setting is that each news event (or university) gets the coverage it deserves. Maybe Harvard is covered far more than other institutions simply because it is the best university in the nation. Maybe the quality of Harvard is superior enough to gain 22 more news articles than Stanford. Despite the drawbacks, this study supports the fact that university reputation is at the mercy of mass media. A university can only hope that its reputation will receive support

in the mass media, because that is the only way many prospective students ever hear of the place.