

The Influence and Limitations of University Rankings: An Examination of Student
Perspectives on the Alignment Between University Rankings and Institutional Quality

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Dedication

The logic in our minds had always been at odds with the logic of life itself.

Sabahattin Ali, *Madonna in a Fur Coat*

Abstract

This investigation examines undergraduate students' perceptions of university rankings and their understanding of the factors that define a quality university, focusing on students at a Flagship State University (FSU) in the Midwest.

Following responses to a survey that asked students to indicate the level of importance that rankings played in selecting FSU to pursue their education, a sample of 32 students were selected to participate in individual interviews through which students were asked to respond to questions focused on university rankings and institutional quality. Qualitative analyses were subsequently conducted to identify key themes.

The findings from this study reveal that while university rankings are an influential element in students' decision-making processes before enrollment, there is a reduced interest in university rankings among students after enrollment, with the exception of those planning to attend graduate school; prospective graduate students were found to exhibit increased interest in rankings during their junior and senior years. The findings also emphasize that when formulating university ranking systems, the student experience at an institution should be considered as the most important factor.

A notable finding of the study is the high importance students place on department-level rankings compared to overall university rankings. The FSU undergraduate participants identified key factors that contribute to a quality university, including knowledgeable and passionate faculty, teaching quality, institutional efficiency (e.g., responsible use of funds), quality of life on campus, and available resources and facilities. The study findings also point to disparities between the criteria used in university rankings and the factors that students consider essential for defining a quality institution.

The findings from this investigation underscore the need for future ranking systems to address students' concerns and skepticism by incorporating factors that are meaningful to them, such as teaching quality, faculty expertise, institutional efficiency, and the overall campus experience. Engaging students in the ranking process through surveys or focus groups can ensure their perspectives are considered and valued. Future research should explore the impact of department-level rankings on students' perceptions of university quality, the diminishing interest in rankings after enrollment, the relationship between university rankings and student satisfaction, and the role of other influential factors such as social media and peer-to-peer communication in shaping students' perceptions of university quality and rankings.

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List of Abbreviations

1. ARWU: Academic Ranking of World Universities
2. CHE: Center for Higher Education
3. et al.: et alii (and others)
4. etc.: et cetera
5. FSU: Flagship State University
6. GI Bill: Servicemen's Readjustment Act of 1944, also known as the G.I. Bill
7. GPA: Grade Point Average
8. MIT: Massachusetts Institute of Technology
9. NCES: National Center for Education Statistics
10. p.: page
11. PhD: Doctor of Philosophy
12. QS: Quacquarelli Symonds / QS World University Rankings
13. SERU: Student Experience in the Research University
14. THE: Times Higher Education
15. TQM: Total Quality Management
16. US: United States
17. US News: US News and World Report / US News & World Report Rankings
18. viz.: videlicet (namely)
19. vs.: versus
20. Y/N: Yes/No

Chapter 1

Rankings in the Era of Modern Research University

Recently, university rankings have, once again, become the center of attention, attracting significant controversy and criticism due to a series of ranking scandals and controversies in the United States (US). In the late months of 2022 and early months of 2023, some instances of data manipulation and misconduct came to light, causing the public to question the integrity and influence of university ranking systems. One noteworthy scandal involved Columbia University, one of the most prestigious institutions in the world, which was discovered to have provided false information regarding its class sizes and faculty qualifications (McGreal, 2022). These inaccuracies had a substantial impact on its ranking position in the US News & World Report Rankings (US News). As a result, not only did this scandal tarnish the reputation of the institution, but it also raised doubts about the overall reliability of the entire ranking process and system.

Just a few months after the Columbia scandal, Harvard and Yale law schools announced their withdrawal from the US News. They cited concerns about the US News methodology, which they felt devalued their efforts to recruit poor and working-class students, to provide need-based financial aid, and to encourage students to pursue low-paid public service law after graduation (Hartocollis, 2022). Following the law schools' withdrawals, prestigious medical schools across the country also withdrew from the US News rankings, citing similar concerns (Korn, 2023).

The ranking scandals and controversies have led to increased scrutiny of the university ranking systems and their impact on higher education. As more institutions, like Harvard and Yale, distance themselves from these rankings, there is a growing call for a reevaluation of the role of competition in higher education and a shift towards collaboration

and genuine academic improvement—a call that has been heard many times before over the past decades (Altbach, 2010).

Colleges and universities worldwide—concerned about their perceived quality and their reputation in international and national markets—have long been competing with each other, both domestically and globally (Altbach, 2010; Hazelkorn, 2012). Although this competition has served, to some extent, as a means to increase institutional quality, it has also pushed universities to focus on *image*, which has led them to invest their resources on frills, such as lazy rivers and climbing walls (Altbach, 2010; Woodhouse, 2015). Shedding some light on the nature of competition among universities can help us to understand trends, issues, and what is considered the most important in the current higher education landscape.

Rankings and Competition: Chicken or the Egg?

University rankings have been a huge part of the competition in higher education as rankings both reflect the competition and at the same time stimulate it (Altbach, 2010; Hazelkorn, 2012, Shin & Toutkoushian, 2011). To this end, the relationship between the rankings and the competition can be explained with an analogy of the famous causality dilemma, “the chicken or the egg.” Rankings create competition, competition creates rankings, and the endless loop seems to continue. It is palpable that rankings and competition go hand in hand and feed off of each other.

Taking advantage of the competition, rankings have become a key element in higher education. Students use them to gather information to decide to which institutions to apply, universities use them to benchmark themselves against other institutions, and governments use them to allocate funds or even determine academic mission (Altbach, 2010; Lynch, 2006, 2014; Yudkevich et al., 2016). The question, at this point, is: “What has been the driving force behind the surge of rankings and their ever-increasing influence in the eyes of students,

universities, and governments?” The answer dates back as early as the beginning of the 20th Century and perpetuated by the notion of competition.

Competition has been a vital element of US higher education since the 1900s (Altbach, 2010). Various higher education institutions competed for incoming students and faculty, and as a result of the heightened competition, a hierarchy emerged (Altbach, 2010). Within a few decades, there was a consensus on what universities were the most prestigious in the US. Not surprisingly, one of the first examples of university rankings conducted at that time. In 1925, Professor Raymond Hughes ranked individual departments in various disciplines in the US based on their peer reputation, simply by surveying faculty (Stuart, 1995). At that time, ranking of the colleges and universities was produced through a fairly simple and straightforward procedure: faculty and administrators ranked them based on their own perceptions of the institutions.

Today, the situation is rather different. The increased demand for higher education has resulted in serious growth in the number of universities (Gupta, 2008) and the rapid expansion of the higher education sector made it impossible to rely on the old forms of reputation building and maintenance (Stanley, 2012). Once the peer reputation failed to rank thousands of institutions, a growing number of ranking tables utilizing various methodologies started to emerge. As American higher education began to enroll a significant number of students from diverse backgrounds, universities catered to students with a variety of interests, and so did the rankings. The public simply wanted to know which academic institutions were “the best” and rankings claimed to identify the best institutions by capturing a variety of metrics. And thus, in turn, people use them to make the process of deciding which higher education institution is the best easier.

Universities' Roles in Changing Times and the Emergence of Rankings

Since their establishment in Europe in the 12th Century, universities have frequently been asked to undertake essential roles, such as advancing knowledge through research, educating workforce, fostering critical thinking, promoting intellectual discourse, and serving as hubs for cultural and scientific exchange (Altbach, 2008). Correspondingly, throughout history, they have embraced different missions, either voluntarily or by succumbing to external pressure. Medieval universities in Europe, for example, were providing professional education to men for medical, legal, and religious professions (Altbach, 2008). Starting in the 17th Century, they isolated themselves from the public and focused primarily on training priests and civil servants (Perkin, 2006). During the Age of Enlightenment in the 18th Century in Europe, universities were unwilling to accept and educate the emerging middle classes, and thus they were perceived as *ivory towers* by society. As a result, universities adopted a passive stance, merely observing the dynamic developments of the Enlightenment without active participation (Altbach, 2008).

During the 19th Century, however, European universities began to react to the changing societal conditions around them and many of them embraced the societal progress that was underway (Altbach, 2008). In 1810, Wilhelm von Humboldt drove the development of the modern research university in the University of Berlin to respond to the need for research that was useful, cooperative, systematic, and professional (Altbach, 2008). There began a greater focus within higher education on research that was linked to applied science and national development. With the emergence of research-focused endeavors, academia started to improve first in Germany, which highlights the pivotal role played by German universities in promoting research and its impact on societal progress that subsequently influenced educational developments in other regions and then other parts of the world, including the US (Altbach, 2008; Backhaus, 2015).

In the early 20th Century, American universities followed suit, as the ideals of Humboldt's modern research university, especially in Humboldt's conception of the "pursuit of knowledge wherever it may lead" had grown in popularity (Crow & Dabars, 2015, p. 306). In addition to a focus on teaching and research, American universities added and pioneered a third concept to the modern university: service to society. In 1862, the Morrill Land Grant Act was enacted in the US, which was an "influential piece of federal legislation that fostered access to useful public higher education" (Thelin, 2011, p. 75). (While today, this act is viewed as controversial due to the fact that the government built land grant universities on land taken from indigenous communities, the act changed the nature of public research universities of the time.) By "service to society" and "engaging with agriculture and industry" to the research and teaching missions, American land grant universities played a vital role in placing the universities back to the center of the society (Altbach, 2008). Kerr (2001) asserts that the American university, which has become the most influential institution in the world after World War II, is a synthesis of collegiate tradition from England, research idea from Germany, and the American value of service to society.

[Roughly the quarter-century after World War II,] the university is being called upon to educate previously unimagined numbers of students; to respond to the expanding claims of national service; to merge its activities with industry as never before; to adapt to and rechannel new intellectual currents. By the end of this period, there will be a truly American university, an institution unique in world history, an institution not looking to other models but serving, itself, as a model for universities in other parts of the globe. (Kerr, 2001, p. 65)

The ideals of American university have required large student enrollments in order to be effective and to fulfill its mission to service to society. Consequently, the Federal Government has enacted various bills, acts, and laws, such as the Morrill Act and GI Bill, to

increase enrollment. Such efforts have successfully expanded access to higher education, resulting in unprecedented growth in higher education enrollments within a few decades. This rapid growth has played an important role in increasing the public's interest in and attention to higher education (Stanley, 2012).

It was in this era in which the number of students enrolled in higher education institutions soared to unprecedented heights making the education “inextricably involved in the quality of a nation” (Kerr, 2001, p. 65). The US News's publication of its first college rankings report in 1983 was a milestone for university rankings both in the US and elsewhere. The influence of these rankings quickly became substantial, shaping university policies, student choices, and broader perceptions of institutional quality (Monks & Ehrenberg, 1999). Their impact permeated areas such as admissions outcomes, student yield rates, average SAT scores, tuition fees, and financial aid policies, underscoring the substantial sway they hold in higher education (Monks & Ehrenberg, 1999).

The first three editions of US News were based solely on peer reputation. Over 1,300 college presidents received surveys, which asked them to evaluate top schools in their category based on course quality, professors, students, and overall academic atmosphere (Boyington, 2014). In 1987, the first standalone college guidebook, "America's Best Colleges," was introduced. Starting from 1988, the Best Colleges feature became an annual publication. This year also marked the beginning of US News incorporating objective data like a school's selectivity and resources, in addition to academic reputation for the ranking calculations (Boyington, 2014).

Before long, more entities followed the US News's example and began to publish their own university ranking tables (Shin & Toutkoushian, 2011). Although this was not the first time universities were compared with each other, the scale at which it was done and the attention it received were unparalleled. Since the appearance of first US News rankings, the

competition among colleges and universities has increased (Altbach, 2010). Perhaps this is because placing high in rankings suggests that higher education institutions are of high quality, and in turn, they earn national and international prestige. For example, internationally, placing high in rankings translates to global visibility, increased funding from private and public sources, and better chances to attain the best and brightest students, faculty, and staff (Yudkevich et al., 2016). Nationally, in the US, moving up in the US News rankings has proven to bring higher numbers of applications as well as increased quality of incoming students (Bowman & Bastedo, 2009).

By ranking institutions based on measurable outputs (e.g., research output, international student and faculty ratio, faculty/student ratio, etc.), and outputs that are harder to quantify (e.g., teaching output, student outcomes, etc.), rankings create a perception of quality level regarding colleges and universities, especially among students (or, from a neoliberalist perspective, *customers*) who often rely on rankings when they are choosing their institutions (Hazelkorn, 2012). It is, therefore, important to attempt to unpack the relationship between university rankings and the actual quality of universities.

Since the post-war era, many attempts have been made to connect the quality of higher education institutions to common standards and outcomes through different mechanisms (Stanley, 2012). By the 1980s, there was increased interest among both public and private sectors in improving educational outcomes, resulting in a greater emphasis on measuring institutional quality (Shin & Toutkoushian, 2011). This interest is reflected in the proliferation of university ranking tables, which claim to present the quality of universities on national and international scales (DeYoung & Baas, 2012).

The relationship between university rankings and the quality of higher education institutions have been intensively studied in the literature. Various scholars, whose views are discussed and represented in the following sections, have focused on different aspects of

rankings in the higher education landscape. Some researchers, for example, have focused on investigating the roots of the emergence of rankings and have claimed that the “culprit” for their emergence is the increased marketization of higher education (Lolich, 2011; Lynch, 2014, Schofield, Cotton, Gresty, Kneale, & Winter, 2013). They have used political and economic philosophies, such as neoliberalism, as the encompassing frame for their theories. Others have focused on examining the relationship between organizational effectiveness and university rankings. They have reasoned that university rankings, for better or worse, are a major influence on the overall effectiveness of universities (Longden 2011; Shin, 2011; Smart 2003; Patterson et al., 2005; Stanley, 2012). This is because the rankings compel universities to benchmark themselves against other institutions, prompting them to alter strategies, resources, and other factors. Such changes, driven by the pressure of maintaining or improving ranking positions, ultimately lead to enhanced organizational effectiveness.

Yet another group of researchers has emphasized the significance of quality assurance and accountability in higher education. Their argument stems from the increased importance of university rankings, institutional quality, quality assurance systems, and accountability measures within the higher education landscape. (Federkeil, 2008; Harman, 2011; Harvey, 2005; Harvey & Green, 1993; Martínez-Lorente, Dewhurst, & Dale, 1998; Ryan, 2015). They point to the shortcomings and harmful influence of rankings on institutions, and they have proposed favoring certain types of rankings (i.e., consumer-oriented) rather than trying to eliminate them completely, believing that “rankings are here to stay” (Hazelkorn, 2009, p. 5).

To this end, the following sections focus on examining the contemporary issues in higher education with respect to changing ideologies in higher education, increased marketization, commercialization, the growing emphasis on quality, and their relationship to

the proliferation (and criticisms) of university rankings. The paper, then, presents an investigation and its findings, which explored these relationships. It concludes by identifying a particular set of research questions that should be investigated further to advance the research in the field.

Chapter 2

Universities in the Neoliberal Era

While the issues concerning students' perceptions of higher education quality, the aspect of prestige, and the role of rankings are global in nature, this study is centered on US higher education institutions due to the prominent influence of university rankings and their role in shaping academic practices and perceptions within the US. In addressing issues of rankings in higher education, there are four aspects that need to be considered: (1) public good mission of higher education, (2) marketization of higher education and commercialization of universities, (3) quality assurance and accountability in higher education, and (4) organizational effectiveness. The selected theoretical frameworks serve as valuable lenses through which to examine university rankings and quality in higher education. In this chapter, I discuss the four frameworks in detail; however, it is crucial to explain the rationale behind choosing these frameworks first.

Rationale for the Frameworks

The first framework I chose refers to the public good mission of higher education. By exploring the public good mission of higher education, I aim to assess how rankings influence universities' commitment to serve the public good. This framework allows the investigation of the potential compromises between aiming for higher rankings and maintaining the core values and social responsibilities of higher education institutions.

The second framework focuses on the marketization of higher education and the rising commercialization of universities. Examining university rankings within the context of marketization and commercialization highlights the role of rankings in driving competitive behavior among universities. This framework provides insights into how rankings have been contributing to the neoliberal transformation of higher education, as well as the potential

implications of this shift on institutional priorities, resource allocation, and stakeholder expectations.

The third framework is about quality assurance and accountability in higher education. Utilizing the quality assurance and accountability framework provides a means to evaluate the effectiveness of university rankings as a tool for promoting transparency, accountability, and continuous improvement in higher education institutions. This perspective helps in understanding whether or not rankings contribute to a more accurate representation of quality in higher education, as well as how they influence decision-making among stakeholders.

The fourth framework centers on the issue of organizational effectiveness: By considering organizational effectiveness, I strive to investigate how universities respond to ranking pressures, adapt their practices, and strategize to improve their positions while maintaining or enhancing their effectiveness. This framework enables the exploration of the complex relationship between rankings, institutional performance, and the challenges faced by universities between the aim of reaching higher rankings and their core missions and values.

These theoretical frameworks are instrumental in understanding university rankings and quality in higher education as they provide a comprehensive understanding of how the rankings influence institutional practices, performance, and perceptions of quality. By employing these concepts into my study, I seek to delve deeper into the complex relationship among rankings, quality assurance, and organizational effectiveness—ultimately contributing to the ongoing discourse on the role of rankings in shaping the higher education landscape. In light of this goal, I situate the discussion within the larger contexts of neoliberalism and university rankings, both of which have been feeding off of each other in an endless loop that does not show any signs of stopping.

Public Good Mission of Higher Education

Higher education has long been regarded as a public good due to its potential to benefit both individual and the broader society. Since the inclusion and emphasis on service to society, which was pioneered by the American institutions and spread out the other parts of the world, one of the key functions of universities has been to serve the public interests by expanding public service and outreach initiatives (Kaipeng & Juan, 2011). Since the 1980s, there has also been a tendency among the nation-states to privatize sectors of public higher education (Kaipeng & Juan, 2011; Shin, 2011), radically affecting the ways in which higher education fulfills its public good mission and how the higher education system is perceived by society. These privatization efforts, which, in general, have had their roots in neoliberalism (Lolich, 2011), have been attacking the basic public good characteristics of higher education, influencing the management and operation of universities along the way (Kaipeng & Juan, 2011).

For example, privatization can lead to a shift in academic focus, as universities may be compelled to prioritize courses and programs that generate revenue or attract investment, potentially sidelining less profitable but socially important disciplines. Furthermore, the increased reliance on private funding may impact academic freedom, as research could be directed towards areas that are appealing to private donors, rather than those that serve the public interest. All these changes can substantially alter the nature of universities, leading them away from their traditional role as a public good and towards a more market-driven model.

According to Altbach (2008), the public now regards higher education, including public higher education, more as a private good that only benefits the people who receive the education. Moreover, governments are treating higher education as a commodity from which private profits are made (Lynch, 2014). The fundamental purposes of universities—to gain of

knowledge and knowledge transfer—are now increasingly considered just another commercial transaction (Lynch, 2014). This institutional shift has severely damaged the public good mission of all types of higher education and it has hindered the institutions' ability to justify receiving public funding. Governments, which rely on public taxes, therefore, are unwilling to allocate resources required for higher education when it is only beneficial for individuals and not for the broader public (Baum & Ma, 2014).

For a long time, higher education institutions in the US have claimed to serve the public good. This is especially true among state-funded public institutions, that have had to justify the public funding they receive. Losing state funding forces these public universities to find their own external funding sources, making them more reliable on non-public funds and hence more prone to the influences of market forces (Lynch, 2006). The result of the infiltration of market forces into American universities in the early 21st Century could be seen in the gradual transformation of universities into consumer-oriented corporate networks. This transformation has been argued to be detrimental for the public good mission of higher education as the public good mission of higher education has been diminishing due to the increased privatization (Kocaqi, 2015). Although the most visible shifts toward privatization are seen in the US higher education, this phenomenon is not limited to the US context (Altbach, 2013; Hazelkorn, 2012). Even Finland, despite being a Nordic country with a strong commitment to the public good mission of higher education and a firm dedication to equity in and access to higher education, has experienced significant influence from the marketization and privatization of its higher education system (Kosunen, 2018).

All across the world, reduction of public funding for public universities has shifted the educational costs to students in the form of increased fees and tuition. This shift in the funding source has resulted in greater exclusion of those who cannot afford to pay high tuition. Consequently, it can be argued that extensive marketization, driven by neoliberal

politics and policies, described below, has had a detrimental impact on the public good mission of higher education.

The Marketization of Higher Education and Commercialization of Universities: Challenges to the Public Good Mission

At the end of the 19th century, the US higher education landscape was vastly different than it is today, with only a few institutions (e.g., Johns Hopkins, Cornell, Harvard, Clark, and Columbia) claiming to be real universities (Thelin, 2011). The situation changed dramatically at the beginning of the 20th century, with the US leading the way in establishing the first mass higher education system as early as the 1920s, Europe following suit in the 1960s, and parts of Asia a decade or so later (Altbach, 2013). Despite the European higher education system being older than its American counterpart, the US Federal Government was the first to recognize the value of higher education, as there was a greater emphasis on the value of higher education in the US for advancing the societal issues of the day.

Consequently, as was previously mentioned, it enacted various legislations such as the Morrill Act, GI Bill, and the Truman Report to increase participation rates, which ultimately led to the massification of higher education. This massification provided more options for students and faculty to attend or work at different institutions, but also placed financial strains on governments. Consequently, many governments could not fully subsidize or even adequately fund higher education systems, leading to increased privatization and the influence of a neoliberal agenda.

Neoliberalism prioritizes individual freedom and the right to private property, asserting that markets, not the state, should be the primary producer of values and cultural logic (Harvey, 2005). Apple (2013) adds that markets still need legislative and regulatory protections to ensure fair practices. Geiger (2004) suggests that economic forces integral to capitalism also shape education. As universities face decreased state funding and increased

private good focus, they must fulfill a variety of roles with fewer resources (Altbach, 2008).

Geiger (2004) argues that market forces have been instrumental in driving these changes.

Although short-term benefits (e.g., increased research partnerships with industries) may arise from these changes, the long-term costs, including the potential erosion of the public good mission of higher education, can be destructive. The imposition of new roles and responsibilities, combined with market-driven pressures, place universities at a critical juncture (Geiger, 2004). As cited in Altbach (2008), Clark (2001) states that the traditional function of universities (i.e., research and teaching) might be weakened as universities struggle to be entrepreneurial and market-relevant. Similarly, Crow and Dabars (2015) note that:

Whether a deliberate or involuntary response to the tightening fiscal constraints and changing priorities for public funds, the long-standing recognition that higher education is a public good, benefitting all of society, is eroding... Without the constraints of public policy, earned and empowered by public investments, market forces could so dominate and reshape the higher education enterprise that many of the most important values and traditions of the university could fall by the wayside, including its public purpose. (p. 6)

The growing influence of neoliberalism has pressured universities to reorganize and adapt new roles as the “private sector [is] assuming an increasingly important role” (Morgan & White, 2014, p. 40). As public funding decreases, universities gravitate towards a private good philosophy that emphasizes revenue generation and the search for alternative sources of income, leading to the commercialization of universities (Bok, 2003).

Bok (2003) argues that any profits earned can be beneficial to the institution. The profits can be used to improve the university’s teaching and research. He raises the question: “Could any rational person resist such a result?” (2003, p. 98). A counter argument to Bok’s

reasoning comes from Noam Chomsky, who argues that market-driven education tendencies are harmful and should be regarded as part of the general neoliberal invasion of the public sphere (Sage & Polychroniou, 2016). He notes, as quoted by Sage and Polychroniou (2016), that the consequences are “harmful to the work force, the students, research and inquiry, in fact all the goals that higher education should seek to achieve” (para. 10). Although Bok (2003) discusses the benefits of commercialization assiduously, he, like Chomsky and many others, also sees the potential costs, although he notes that the costs are more speculative and intangible than the rewards. “More often, they [potential costs] have to do with the elusive world of values, and specifically, with the principles that ought to guide academic pursuits and thereby enhance their quality and meaning” (Bok, 2003, pp. 105-106). Bok, however, emphasizes that undermining academic standards, damaging the academic community, and risking the reputation of the university are the most serious drawbacks of commercialization.

Sandel (1998) argues that the extension of markets and market-oriented thinking in higher education is a powerful social and political tendency. Institutions like Harvard and Princeton have even licensed their brand names for commercial use (Sandel, 1998). Commercialization generates revenue and increases brand recognition, which is crucial for universities since their budgets are related to their rankings (Aghion et al., 2007). As the US increasingly adopts marketization policies (Schofield et al., 2013), university rankings thrive on market-oriented thinking, contributing to the commercialization of universities.

As neoliberal policies become more influential, the public good mission of higher education is at risk. Policymakers, politicians, and the public must be aware of the challenges universities face in protecting their public good mission. To safeguard this mission, the marketization of higher education and commercialization of universities should be curtailed, and the discourse should shift from "markets and choices" to "rights and needs" (Lynch, 2014). As long as universities are seen as corporations, the public will equate quality with

rankings, highlighting the importance of discussing the concept of quality in higher education and the various methods to assess and maintain it.

Redefining Quality in Higher Education and its Various Conceptualizations

Quality in higher education is a relative concept (Harvey & Green, 1993), with varying perspectives among stakeholders, including students, employers, staff, faculty, government, funding agencies, accrediting agencies, and assessing bodies. As a result, recognizing the relative nature of quality becomes essential while engaging in discussions about institutional rankings or other assessment tools.

Although there are numerous conceptualizations of quality in higher education, Harvey and Green (1993) identified five distinct but interrelated categories of quality in higher education: (1) quality as exceptional, (2) quality as perfection or consistency, (3) quality as fitness for purpose, (4) quality as value for money, and (5) quality as transformation.

Quality as exceptional emphasizes academic prowess and prestige, often equating excellence and quality (Harvey and Green, 1993). This concept is the most elitist and exclusive, resonating with ranking tables that highlight the "best" and most prestigious institutions.

Quality as perfection or consistency focuses on the processes and standards that harmonize and support each other. Excellence is not predicated on exclusivity, making it more accessible to those who meet the specifications (Crosby, 1986, as cited in Harvey & Green, 1993). This is similar to government quality assurance practices.

Quality as fitness for purpose establishes a connection between the quality of a product or service and its intended purpose. Nevertheless, this conceptualization sparks controversy in higher education, primarily due to the challenges in defining the "customer" (Harvey & Green, 1993).

Quality as value for money represents a popular approach to assessing quality, wherein quality is associated with maintaining high standards while keeping costs at a minimum (Ball, 1985, as cited in Harvey and Green, 1993).

Quality as transformation views quality as an enhancing mechanism, focusing on the positive impact of education on students' skills, knowledge, and abilities (Aston, 1990, as cited in Harvey & Green, 1993).

As Harvey and Green attempted to unpack the notion of quality in higher education through their five distinct frames, Cameron and Whetten (1996) defined quality as “the desired attributes of the outcomes produced by organizations” (p. 281). After almost three decades after Harvey and Green (1993) first presented their conceptualization and Cameron and Whetten (1996) shared their remark, Cheng (2016) put forward the notion that while quality is a popular word in academia, it carries different meanings for different stakeholders. Some stakeholders define higher education quality via teaching and student learning experiences. Others defines quality in regard to by supervision practice, others by research activities, and others by a set of predetermined standards used in measuring educational outcomes.

Despite the various conceptualizations of quality, there is still no clear understanding of what constitutes quality in higher education. While quality assurance agencies review higher education institutions on a regular basis and share their findings with the public for the purpose of assuring the quality of higher education institutions (Cheng, 2016), research shows that the quality assurance mechanisms are not as effective on stakeholders compared to the effects of rankings (Federkeil, 2008; Shin, 2011). Rankings have become ubiquitous and widely recognized by the public, while knowledge of quality assurance mechanisms remains limited to a few.

Quality Assurance, Accountability, and Rankings in Higher Education

The massification of higher education and the emergence of rankings within the last few decades raised concerns among various stakeholders (e.g., legislatures, public, and higher education administrators) about quality assurance and accountability in higher education (Shin, 2011). The development of modern quality assurance systems in higher education led to the connection and integration of national and global university rankings with quality assurance systems (Harman, 2011). Stella and Woodhouse (2006) highlight the deep influence of university rankings on quality assurance systems. Quality assurance, which aims to uphold a desired standard of excellence in colleges and universities; accountability, involving the demonstration of the value of attending educational institutions, and rankings; which involve the evaluation of institutions based on evolving criteria, are all distinct approaches to assessing higher education institutions (Harman, 2011; Shin & Toutkoushian, 2011).

The institutions of higher education are being molded by the contemporary political and economic forces—forces that are rapidly pushing the institutions to undergo substantial changes. Since the 1990s, in parallel with the emergence of rankings, quality assurance has gained a significant importance in higher education policy agendas worldwide and re-shaped the relationship between the government, higher education, and external stakeholders (Harman, 2011). Quality assurance has influenced especially the ways in which universities develop courses and academic units, plan future directions, manage student assessment and outcome, and allocate research resources among academic departments (Harman, 2011). New policy trends, which emphasize governmental concerns about institutional quality (particularly about graduates and research outputs) are heavily influenced by university rankings and have a substantial impact on quality assurance systems and quality assurance agencies worldwide (Harman, 2011; Salmi, 2008; Stella & Woodhouse, 2006). Even though

the rankings are considered a tool for measuring institutional quality by the public and even by policymakers, ranking bodies and their audiences mostly disregard the basic issue that there are other significant aspects that are indicative of quality that should also be taken into account (Shin, Toutkoushian, & Teichler, 2011).

At this point, it is important to elaborate on how a seeming obsession with rankings may lead to an overemphasis on individual, personal achievements of students, while neglecting systemic factors and the public good mission of higher education institutions. The discussion on university rankings and the quality of universities should consider the concept of achievement fetishization, which is prevalent in some high-achieving cultures, such as in certain high schools (Demerath, 2013). In these environments, personal achievements, like academic success, are excessively valued, and that students in these settings tend to attribute their success solely to their own efforts, disregarding the privileges and advantages that may have played a significant role in their achievements (Demerath, 2013).

In the context of university rankings and the quality of universities, this fetishization can lead to an overemphasis on individual effort and a lack of recognition for the systemic advantages that may have facilitated those achievements. This can negatively affect the perceptions of university quality and rankings since the focus on students' personal accomplishments as indicators of worth and value does not accurately reflect the broader context in which these universities operate (i.e., public good mission) and the diverse factors that contribute to their overall success. Acknowledging the influence of social and structural factors on individual and institutional success, therefore, can provide a more balanced and nuanced understanding of university rankings and quality.

To better understand quality in higher education, it is crucial to define how and why specific stakeholders conceptualize it, and to address the question "what is quality in a higher education context?"

University Rankings vs. Quality Assurance in Higher Education

Quality assurance is a crucial topic in higher education discussions, capturing the attention of both academics and policymakers (Federkeil, 2008). In higher education, quality assurance centers on maintaining the desired level of excellence within institutions.

Rankings, on the other hand, are concerned with gathering information and comparing higher education institutions, primarily based on their research and teaching activities, to offer guidance to market actors or target constituents (Federkeil, 2008).

The primary goal of university rankings is to produce a single metric that accounts for a measure of overall quality, and then sort the various indicators or metrics that define quality from high to low, while ignoring any differences between the indicators that emerge from the processes—ranking systems tend to overlook the nuances or distinctions among various factors contributing to the quality of an institution (Locke et al., 2008).

As ubiquitous and intentionally easily digestible as they are, rankings vary in their concepts and models, and in turn, in their methodology (what and how they measure). The most important aspect of their variations is the metrics they consider in defining quality of institutions (Federkeil, 2008). Most rankings do not have “an explicit concept of quality, although implicit concepts are implied in their specific indicators and measures” (Federkeil, 2008, p. 224). Such indicators usually include, albeit to a different extent, teaching, learning, and research activity.

In their comprehensive study of five institutional ranking tables, Dill and Soo (2005) observe that input measures have high significance in all five ranking tables whereas output measures and rankings process play a less significant role. For example, they note that in each of the ranking tables, the quality of incoming students (an input measure) has been one of the most prominent determinants of a quality university. Output measures, such as graduation and employment rates, on the other hand, are less significant (Dill & Soo, 2005).

(It is also worth mentioning that in earlier sections of this paper I noted that there has not been a single universally accepted definition of quality; therefore, “the quality of incoming students” is itself an ill-defined input indicator to begin with.)

The variance in concept, model, and methodology among ranking tables becomes more evident when they are compared to quality assurance mechanisms. As the focus on organizational effectiveness shifts from “effectiveness” to “quality,” it is imperative to discuss the rankings and quality assurance under the broader concept of organizational effectiveness. Cameron and Whetten (1996) identify seven guidelines to measure organizational effectiveness: time frame, level of analysis, main constituency, domain of activity, purpose of evaluation, type of data, reference of judgment. These guidelines could serve as the theoretical foundation for comparing organizational effectiveness among different types of quality schemes (i.e., rankings and quality improvement). On the other hand, as Shin (2011) notes, different types of quality assurance and university rankings would provide different comparisons. Nonetheless, the Cameron and Whetten’s (1996) theoretical guidelines provide a useful framework for comparing the rankings and quality assurance mechanisms in their approach, methodology, and benefits.

Despite the advantages of quality assurance mechanisms over rankings, rankings get the most public attention, and despite recent questions about the validity of rankings and the withdrawal from rankings among several prestigious universities, the influence of rankings is not likely to vanish in the near future (Saul, 2022). In fact, each year, more and more rankings are being published. The one advantage that rankings have over quality mechanisms is that ranking tables matter to the institutions. Federkeil (2008) states that:

Their results are taken seriously by the institutions ranked – in terms of marketing, with regard to strategies to ascend in league tables (up to a degree this could be classified as unintended or even dysfunctional consequences of rankings) – but also in

the way that universities seek to cope with weaknesses identified by rankings. It is only in this sense that rankings can contribute to institutional quality assurance. They can be a starting point for institutions to analyse their strengths and weaknesses compared to their competitors. (p. 229)

Table 1

Comparison of Rankings and Quality Assurance Systems

| | Ranking tables | Quality assurance mechanisms |
|------------------------------|---|--|
| Time frame | Annual assessment. | Longitudinal assessment. |
| Level of analysis | Focuses on overall ratings of institutions, comparing them based on various criteria. | Focuses on overall program or institutional quality, evaluating multiple aspects of the institution. |
| Main constituency | Highlights the perspectives of media, students, parents, the general public. | Highlights the perspective higher education institutions. |
| Domain of activity | More emphasis on research. | More emphasis on teaching. |
| Purpose of evaluation | Relative positions between comparable institutions. | Enhancing the institutional quality. |
| Type of data | Solely based on quantitative data. | Based on both qualitative and quantitative data. |
| Reference of judgment | May or may not be interested in enhancing the quality of institutions. | Uses benchmark in many cases to enhance the quality of institutions. |

Adapted from Shin (2011)

Rankings are taken seriously by the institutions because internal as well as external stakeholders (e.g., students, parents, policymakers) pay attention to rankings due to various reasons, such as they are easy to read, highly accessible by public, offer very clear results,

and paid high attention by the mainstream media; all of which are indicators that rankings are considered important. Quality assurance, on the other hand, is more focused on improving higher education institutions' quality by learning from good practices and comparing processes and outputs with other institutions (Federkeil, 2008; Shin, 2011); however, they are neither as common nor attention-grabbing as rankings.

The ranking systems are well-established all over the world and each year more ranking tables are created (Hazelkorn, 2012). Not every country, on the other hand, is on the same level of institutionalization with respect to quality assurance systems. Some countries have established quality assurance systems that are well-institutionalized and well-accepted while others are still in the early stages of development (Harman, 2011). Increasing the influence and prevalence of quality assurance mechanisms worldwide is essential, as evidence suggests they provide a more beneficial and productive means of comparing programs and institutions than rankings.

Organizational Effectiveness in Higher Education

Rankings have been a major influence on organizational effectiveness (Shin, 2011). With the public's perception of higher education institutions geared towards universities being a private good, consumers (e.g., parents and students) want to see the value of their investments in higher education. This has resulted in the emergence and proliferation of rankings as well as quality assurance and accountability in higher education (Harman, 2011; Shin & Toutkoushian, 2011), which are intricately connected to the concept of organizational effectiveness.

Since the beginning of the 1980s (incidentally, ranking tables started to emerge during this period as well), various governments and agencies have been allocating funding to universities based on their performance and, through this, have directly or indirectly evaluated the organizational effectiveness of universities (Shin, Teichler, & Toutkoushian,

2011). A significant amount of research has been conducted to both define and increase people's understanding of organizational effectiveness (Lysons, Hatherly, & Mitchell, 1998).

Among the various models of organizational effectiveness of higher education institutions, the most prominent model is the one Cameron (1978, 1981) proposes for the organizational effectiveness of colleges and universities. Cameron (1978) identifies nine dimensions of organizational effectiveness in colleges and universities, and later, in 1981, merges these dimensions into four clusters:

1. *The academic-oriented cluster*, which can be distinguished by its focus on “the traditional academic activities and educational outputs” (p. 34), such as the academic progress of students, and productivity and resourcefulness of faculty.
2. *The moral cluster*, which focuses on “student educational satisfaction, faculty and administrator employment satisfaction, and the health of internal institutional processes” (p. 34) within colleges and universities.
3. *The external adaptation cluster*, which focuses “student career development and system openness, and community interaction” (p. 34). In this domain, an institution's involvement in the community and the amount of attention given to student development for job placement strike as the two key factors.
4. *Extracurricular cluster*, which solely focuses on student personal development that are related to nonacademic development of students.

Cameron (1981) argues that as the way in which an organization is conceptualized changes, the definitions and approaches to organizational effectiveness changes with it. Cameron's four clusters of defining organizational effectiveness, however, remain relevant in the field (Bozeman, 1984; Cameron, 1981; Shin, 2011).

Following Cameron's (1981) work, Quinn and Rohrbaugh (1983) proposed a theoretical model for organizational effectiveness, known as *Competing Values Model* (or

Competing Values Framework), which provides a robust framework on different dimensions of organizational effectiveness. In their model, Quinn and Rohrbaugh classified organizational effectiveness on three dimensions: (1) organizational focus, (2) organizational structure, and (3) organizational process and goals. Similar to Cameron's (1983) theoretical foundation, Quinn and Rohrbaugh used these three dimensions as the foundation for their four ideal types of organizational effectiveness. They suggested that the various criteria of effectiveness can be reduced to these four basic models: open system model, rational goal model, internal process model, and human relations model (Quinn & Rohrbaugh, 1983). By combining these orientations into one model, Quinn and Rohrbaugh (1983) aimed at providing an extensive conceptual framework of the domains of theory in the field (Patterson et al., 2005). Their model served as a base model for organizational researchers who have applied various dimensions to explain organizational effectiveness (Shin, 2011).

Smart (2003) notes that the theories of organizational effectiveness were not immune to the internal and external demands that came with the changing climate of higher education. Shin (2011, p. 21) explains that the four dimensions of the Competing Values Model are shifting from the "human relations model toward the market model whether it is called as *academic capitalism* or *new public management* or as some other terms" due to the quality management schemes (i.e., rankings, performance-based accountability, and quality assurance). Shin (2011) further argues that these three schemes have developed methods to measure organizational effectiveness and endeavored to associate their findings with economic resources or reputation. It is, therefore, important to discuss the various key measures in organizational effectiveness in higher education and compare them with each other.

Rankings as a Tool to Measure Organizational Effectiveness

Due to the increase in the demand for quality higher education, the need for measuring effectiveness and quality in higher education has also increased (Ryan, 2015). Governments started to develop regulatory processes to ensure that all higher education institutions provide appropriate outcomes to students. Policymakers then began to enact quality assurance schemes to answer to the question of quality raised for higher education. For example, Total Quality Management (TQM) movement, which was theorized based on Deming's (1986) 14 key principles for transforming business effectiveness, was very popular in higher education in the 1980s and 1990s (Martínez-Lorente, Dewhurst, & Dale, 1998). Many universities in this period realized that TQM, which applies concepts of control, quality, process, and customer, to management, has values that are "more compatible with higher education than many existing management systems" (Sherr & Lozier, 1991, p. 3).

TQM was highly popular but was not the only system. To meet the needs of stakeholders, the US government began developing public accountability systems, which required US higher education institutions to report their performance to policymakers based on predetermined performance indicators (Shin & Toutkoushian, 2011). Governments across the world followed the same trend. In many cases, governments aimed at regulating higher education by developing accreditation and registration processes, frameworks for qualification, and quality assurance processes (Stanley, 2012). Today, there are three separate mechanisms in higher education existing together to assure, or claim to assure, quality: (1) university rankings mainly published by media, (2) quality assurance measures developed by quality assurance agencies, and (3) accountability measures required by governments (Shin & Toutkoushian, 2011). Among them, rankings get the most attention from stakeholders (Federkeil, 2008; Shin, 2011).

Ever since the inception of these systems, rankings have been regarded as a tool that measures the effectiveness of universities (Shin & Toutkoushian, 2011). It was not unusual for the public to assume that higher ranked institutions provide better quality teaching, are more productive, and offer more to society than their lower ranked counterparts. This view, however, has been largely disregarded by academics for various reasons. For example, the efficiency of a small college and a large university might differ widely. A small liberal arts college could be much more focused on educating students than a larger one, and a large university could be very much focused on research production. Rankings, however, have been mainly emphasizing research over teaching (Hazelkorn, 2009), which means that teaching-based or small universities are heavily disregarded and not able to be ranked high in the ranking tables. This is not because they are not good or offer a lower quality education but simply because the rankers' approach to defining what counts the most (i.e., research).

Organizations' effectiveness, however, can be measured by combining their inputs, throughputs, and outputs (Shin & Toutkoushian, 2011). In higher education, an institution's organizational effectiveness "can be measured by goal attainments (outputs), efficiency of goal attainment (e.g., inputs vs. outputs), or other combinations of these elements" (Shin & Toutkoushian, 2011, p. 4). As cited in Shin and Toutkoushian (2011), Zheng and Stewart (2002) conducted research in which they ranked American universities by considering the efficiency of inputs and outputs at the same time and the results were different than those of other popular ranking tables (Shin & Toutkoushian, 2011). It is thus valuable to investigate the dominant model of university rankings and alternatives to shed some light on the differences among ranking tables.

Market-driven vs Consumer-oriented Rankings

Rankings fall into two categories. Consumer-oriented rankings, such as rankings done by the Center for Higher Education (CHE) in Germany ("CHE University Ranking", 2018)

devote themselves to providing institutional information to stakeholders (viz., public) in which the customers can choose the indicators in assessing institutions. The main target group for the CHE ranking is the prospective students who are searching for information in order to find an institution of their choice (Federkeil, 2008). A similar ranking system in the US might be the government-initiated College Scorecard, a major effort by the US government to understand and improve the college selection process (Morgan & Dechter, 2012). These rankings provide easily accessible rankings to the public in order for customers to select indicators and apply different significance to variables based on their preferences. Consumer-oriented rankings have similarities with quality assurance systems and are in this regard distinct from other types of rankings (Shin, 2011).

On the other hand, market-driven university rankings, such as US News, were originally initiated by the media for business purposes and provide different types of rankings based on various criteria deemed important indicators of institutional quality. These rankings are not shy to anoint particular institutions as the “best regional university,” “top liberal arts university” or “top 500 university in the world!” (Shin & Toutkoushian, 2011). University ranking tables such as US News, THE, ARWU, and QS World University Rankings are well-known and influential in that they are followed by institutions, discussed on mainstream media, read by each group of stakeholders in higher education. They are similar in that they target the undergraduate student market and claim to reflect the quality of teaching and learning within colleges and universities (Longden, 2011). It is thus important to discuss the differences between these two different concepts of ranking tables, led by CHE on one side and the US News on the other, in order to evaluate how rankings can be beneficial or counterproductive in institutional organizational effectiveness.

Federkeil (2008) observes, rather descriptively, that CHE rankings table distinguishes itself from the other dominant rankings by three characteristics in its methodology. First,

CHE does not rank universities as a whole, but rather focuses on individual programs. Second, CHE does not present a single metric that would provide an overall value in assessing programs. Instead, it lists the different metrics used for rankings and allow one to weigh the importance of each metric based on personal preferences. Third, instead of ranking programs in a sequential, top-down list, CHE clusters them into three groups—top, middle, and bottom (Federkeil, 2008). Conspicuously, this third characteristic indicates that the CHE rankings table is indeed a ranking table, albeit a different one. Hence it is not as useful as an organizational effectiveness mechanism in improving the quality of a higher education institution. Improving the quality of higher education, therefore, needs to be analyzed from the perspectives of the stakeholders and quality assurance mechanisms.

Conclusions and Future Study

University rankings play a significant role in the contemporary higher education climate in the world (Yudkevich et al., 2016). Since 2003, after the publication of the first international university rankings, ARWU, several new *global* rankings came into existence, including the influential THE and QS. By 2007, rankings' influence on higher education institutions and on nation states was undeniable as was evidenced by literature (Hazelkorn & Ryan, 2013). Although rankings' influence on higher education is evident, the degree to which, if any, they are actual indicators of quality of education in higher education institutions requires further examination. As cited in Dill and Soo (2005), Bowden (2000) notes that rankings are heavily criticized due to their statistical inaccuracy and the lack of valid measures of academic quality. Similarly, Buéla-Casal et al. (2007) suggest that experts have long been debating the controversial aspects of university rankings and are asking: What are the indicators that would accurately measure institutional quality? Or, which methodology is more beneficial for the development of ranking tables?

The growth of higher education markets and the massification of higher education in the second half of the 20th Century have all placed universities at the center of greater public scrutiny. In light of the quickly evolving educational needs of a growing diversity of student bodies and decreasing public support due to the marketization and massification of higher education, which has been influenced by neoliberalism, has heightened the competition between colleges and universities both within the nation-states and internationally. In response, many university ranking tables have come into existence worldwide.

Launching a new era of rankings was the US News, which published its first college rankings report in 1983. It is not coincidental that the media's increased interest in higher education came at the same time as the public's renewed interest in higher education. Both the public and media have questioned universities' claim that they are serving the public good, and therefore should receive public funding. As many researchers have argued that universities have become more focused on corporate consumers at the expense of their public good mission (Lynch, 2006; Lolich, 2011).

The justification for their claims can be traced back to growing neoliberal influences on politics and financial markets. Ever increasing marketization and commercialization of universities give to the public the impression that universities are indeed less interested in fulfilling their public good mission. This situation creates a vicious cycle whereby decreased public support leads to reduced government funding, which encourages universities to rely more on private funding and commercialization for revenue generation, which then leads to even lower public support.

Correspondingly, both private and public sectors have started to pay particular attention to educational outcomes, in turn, giving greater focus to issues of quality. With the increased competition among institutions, the need for measuring quality in higher education has become a priority for governments around the world. This has resulted in the

development of regulatory processes to ensure that universities achieve appropriate outcomes for students. Governments and government agencies are increasingly determining allocations of resources to universities based on institutional performances, making organizational effectiveness a central theme of discourse in contemporary higher education. While over the years, a number of theories and frameworks, such as TQM, has been proposed to define organizational effectiveness, and many models have attempted to increase institutional effectiveness in higher education.

The impact of today's university rankings on organizational effectiveness is conspicuous, and stakeholders have come to the realization that "rankings are here to stay" (Hazelkorn, 2009, p. 5). This increase of university rankings has led to the creation of new models of rankings, beyond than those that are familiar, such as the US News, THE, QS, and ARWU. These new, more consumer-oriented model of rankings are attempting to measure effectiveness and quality differently than the more familiar market-oriented rankings. Consumer-oriented rankings pay more attention to the individual departments by using different metrics and allowing users to weigh the importance of each metric based on personal preferences.

For example, CHE-ranking in Germany recognizes the fact that students have different preferences. Some students might place more value on a department with high involvement in research activities while other students might be looking for a department with fewer exams. Students, therefore, can choose among various criteria (e.g., research orientation, IT-infrastructure, teacher support, support in studies, library, graduation time, support for study abroad, etc.) and weigh each criterion based on their personal preference. In the end, however, consumer-oriented rankings' methodology is also limited. While they may be different than the market-based rankings; they privilege particular disciplines, outputs, and

achievements while trying to reaffirm more traditional understandings of knowledge production and research.

Rankings remain by far the most popular proxy for assessing higher education quality (Hazelkorn, 2012). Research findings on this issue, however, to date, have indicated that the accuracy of rankings is questionable and that the dissemination of the rankings perpetuates misleading information about institutional quality (Shin, 2011). In addition, a growing number of countries are increasingly relying on global university rankings to determine the eligibility for academic collaborations, and researchers are finding that many excellent academic institutions are excluded from the rankings because they lack emphasis on the particular metrics (e.g., research productivity) on which the rankings are based (Altbach, 2013).

It is, therefore, important to acknowledge that as rankings play a more influential role in the decision-making process for various stakeholders (i.e., university leaders, students, faculty), understanding better the alignment between stakeholders' perceptions and expectations and the actual rankings is important for ensuring a more accurate account of how universities compare in regard to quality. This alignment is especially important for students who rely on the rankings in deciding whether a higher education institution they are interested in attending has a level of prestige and quality that is acceptable to them.

To this end, the issue of whether rankings are an accurate and appropriate method for measuring the quality of universities warrants further research. The findings of this investigation must be compared with the quality criteria of dominant university rankings (US News, ARWU, THE, QS) to determine the degree to which, if any, the university rankings reflect true and accurate assessments of quality. Consequently, the following research questions warrant investigation:

1. How well do undergraduate students' decision-making criteria, including university rankings, align with their perceptions of the quality of their chosen institution?
2. To what extent does an institution's ranking correspond with undergraduate students' perceptions of its quality?

Chapter 3

Method and Methodology

The process of scientific study has three basic elements: (1) the ontology, the nature of reality; (2) the epistemology, the nature of knowledge; and (3) the methodology, the research strategy chosen for the research (Bailey, 1997). The initial phase of research involves researchers making crucial decisions about the questions their investigation will seek to answer. The formulation of the research question(s) guides and shapes the study's design and methods. Researchers, therefore, must carefully consider how they phrase the research question(s). Once the research questions are established, the methodology can be developed accordingly. Before selecting a specific research methodology, however, researchers must grapple with fundamental inquiries about the nature of reality and the nature of knowledge, which will underpin their approach.

The nature of reality depends on a researcher's views of what is true, possible, and impossible, and which tools they use in their examination of the research problem (Guba & Lincoln, 1994). Researchers utilize qualitative methodologies to unpack the issue of reality due to the complex contexts with which the research takes place (Andrews, 2016). The notion of reality is crucial as it suggests that a research approach (i.e., method and methodology) is not about the superiority of any one methodology over others but rather using the right methodology for a given research.

This chapter outlines the research design and methods employed in this study while giving insight into the rationale behind the chosen approach. It illustrates the data collection and analysis methods, introduces the research's data collection instruments, and delves into a discussion of the study's limitations.

Philosophical Underpinnings and the Research Paradigm

Research usually starts with a question. The nature of the question steers the research in a particular route in terms of research design. After the research design has been established, one of the most fundamental issues to address before data are collected is whether the research will rely on data produced via a qualitative methodology, a quantitative methodology, or a mixed methods methodology. To this end, it is vital to revisit the overarching research question of this investigation.

Although the research question has evolved throughout this inquiry process and has taken its final form as presented at the end of the previous chapter, the core of the question has remained the same. The original question—and its iterations—indicates that my aim is not to confirm or to refute an existing theory (Guba & Lincoln, 1994) on ranking tables, nor is it to quantify the quality of universities in terms of their position within the ranking leagues. The aim is to *unpack the facets and complexities* of the rankings and the institutional quality from the perspectives of undergraduate students at a certain higher education institution. Moreover, I aim at acquiring a deeper understanding of the aforementioned phenomenon and exploring nuances related to it, such as the alignment between the criteria undergraduate students apply in making decisions about which institution to enroll in and their perceptions of the quality of the institution, and the alignment between the ranking of the institution and the undergraduate students' perceptions of the quality of the institution.

My research also seeks to compare the similarities and differences of the experiences and mindsets of the research participants regarding the issue at hand. Given that I seek to focus on capturing people's perceptions and realities (Creswell, 1998) and aim at achieving a "holistic approach that involves discovery" (Williams, 2007, p. 67), the findings of my study will be based on qualitative data.

After finalizing my research question and deliberating from which angle I wanted to approach the study, I decided that a qualitative approach is the most suitable one for this study because it offers several choices of traditions (Creswell, 1998), ranging from niche approaches such as symbolic interactionism (Jacob, 1987) and transcendental phenomenology (Moustakas, 1994), to more common approaches such as case studies (Denzin & Lincoln, 1994) and ethnography (Slife & Williams, 1995) that are useful in extracting the kinds of perspectives I seek to gather from this inquiry. Although different by design, the various traditions within qualitative methodology are consistent in that they all follow a common set of guidelines. Each tradition follows logical assumptions about human nature and society (Jacob, 1987).

In essence, qualitative research can be defined as a process of inquiry utilized by following certain methodological traditions to understand and investigate a social or human problem (Creswell, 1998). To follow “certain methodological traditions” requires first to understand a researcher’s ontological and epistemological assumptions upon which a research study is built. In the next sections, I discuss my ontology and epistemology and how they shape my research.

Ontology

In the most basic terms, ontology is what one thinks about reality and nature of being (Mack, 2010). Ontologically, qualitative research has two mainstream approaches in answering questions: (1) realist (positivist) approach, where the reality is considered independent from the researcher, and (2) constructivist (interpretivist) approach, where reality is considered to be *dependent* to people and that people *construct* the world around them through interpretation (Andrews, 2016; Denzin & Lincoln, 1994). The constructivist approach has become popular during the post-modernist era.

The main ontological challenge within qualitative research is a philosophical one that stems from the perception of reality. If the reality is independent from the researcher (and the research participants), then the aim of the researcher must be to uncover the objective reality. Conversely, if the reality is shaped by people's interpretations of the world, then there is likely not just one reality, but multiple realities, as people have different interpretations of the world around them. This dichotomy in qualitative research poses a rather complicated and challenging philosophical problem that researchers must reconcile.

As qualitative researchers, if we are to accept that there is a single, objective reality, then we are to ignore the fact that the researcher constructs interpretations while they analyze their data (Andrews, 2016; Hammersley, 1992). Similarly, if we are to accept the fact that there is no objective reality and nothing can ever be known with certainty, then (1) the function and relativity of research are put into question as none of the interpretations of a social phenomenon can have precedence over the other (Hammersley, 1992), and (2) issues arise in examining the claims the researchers have made in their studies—issues of validity, generalizability, and reliability (Mays, 2000).

Considering my ontological stance has presented a significant challenge for me as a researcher. As a social scientist examining people's perceptions of various phenomena, I am naturally inclined to believe that reality is shaped by individual experiences and how we perceive the world around us. This notion has manifested itself in my past research endeavors, professional life, and everyday interactions.

I cannot entirely dismiss the idea that reality should not be solely based on perceptions and constructs. During a previous research project, I recall a conversation with my then-advisor about the nature of reality. They gestured to a nearby desk and asked, "Is this real or not?" While the question was not intended as a deep philosophical inquiry or to occupy my thoughts for an extended period, it sparked ongoing reflection on the nature of

reality. It was not until I began my doctoral studies that I encountered a concept which closely aligned with my perspective on reality.

In this study, I adopt a middle-ground paradigm within the qualitative methodology known as subtle realism, proposed by Hammersley (1992). Subtle realism is an approach that allows for the construction of new worlds and recognizes a reality beyond the investigated phenomenon (Hammersley, 1992). This approach facilitates the connection between past and new experiences (Seale, 1999). Subtle realism opposes the constructivist view that knowing an independent real world separate from one's perceptions is impossible, and it opposes the objectivist view that social phenomena exist entirely independent of social actors.

Instead, subtle realism posits that all research contains a subjective component, such as perceptions and constructs. This subjectivity, however, does not negate the existence of independent phenomena, within which "objects, relationships, and experiences can be studied" (Duncan & Nicol, 2004, p. 455). As a result, subtle realism provides a valuable perspective for this study. (A more comprehensive discussion of the concept of subtle realism is presented in the next section, epistemology, as a complete understanding of the subtle realist approach must encompass its epistemological stance as well.)

The need for subtle realism in research stems from the lack of a niche "sweet spot" which is not covered by other approaches adopted by constructivism (or relativism) and naive realism (or positivism). Naive realism is based on the belief that there is a single absolute truth which is completely independent of the researcher or the research process (Lincoln & Guba, 1985), and it argues that "our world has an existence independent of our perception of it" (Williams & May, 1996, p. 81). Constructivism, on the other hand, counters it by arguing "the external world is the product of mind... things that we perceive in the world are just appearances and have no independent existence outside our thoughts" (Williams & May, 1996, p. 42). In other words, constructivists argue that the external world is formed by the

symbols that are constructed in people's minds (Duncan & Nicol, 2004). Due to the different approaches regarding the nature of reality and the nature of knowledge within these two camps, researchers on either side tend to point out the shortcomings of the other, so much so that sometimes they completely disregard the validity of one another. The next step in the argument then is to suggest a different approach in which constructivism is not the only alternative to realism. The most promising strategy in resolving this issue, according to Hammersley (1992), is to adopt a more subtle form of realism.

Even though a constructivist approach informed by the subtle realist paradigm guides this research, resolving the long-debated issue of *objectivism versus constructivism* is not a part of the aim of this study. Whether or how the reality is "singular and objective" or "multiple and constructed" requires a special philosophical discussion beyond the scope of this dissertation. Nevertheless, ontological assumptions and philosophical underpinnings have been important elements of this research, as I used them in pinpointing my understanding of objective reality, social reality, and human constructions.

Epistemology

Epistemology refers to one's view of how the knowledge is acquired (Mack, 2010). While ontology guides researchers in their quest to answer, "what is real?", epistemology guides them to answer, "what is knowledge?" (Guba & Lincoln, 1994). Concerning its functionality in research, epistemology can simply be defined as "justification of knowledge" (Carter & Little, 2007, p. 1317). By defining their epistemological assumptions, researchers justify their approach to the question of "what can be known?" and "what are the ways it can be known," and how the answer to this question would affect their research. In addition to the ontological assumptions, researchers, therefore, need to clarify their standing with respect to their epistemological assumptions before they embark on choosing the methods and methodologies for their research.

Although epistemology is a theoretical concept, the researcher cannot possibly conduct research without first having a set of assumptions regarding the nature of knowledge and the ways in which knowledge is constructed (Carter & Little, 2007). Specifically, the researcher adopts a theory of knowledge, whether actively or implicitly, while they conduct research. In qualitative studies, the epistemology the researcher adopts has a profound influence on the relationship between the researcher and the participant, which in turn has a substantial impact on the data collection and data analysis processes (Creswell, 2007; Guba & Lincoln, 1994).

For example, on one hand, the researcher might hold the belief that the research participants are active in knowledge creation. That is, the knowledge is co-constructed by the researcher and participants at the same time. A researcher, let's call them the "Researcher X," who believes participants are co-creators of knowledge, will try their best to engage with the participants, share their own beliefs and values with them, create—as much as possible—a caring relationship with them, and above all, trust the information participants provide to the researcher.

Even in cases where participants contradict their own statements (e.g., in a health study when a research participant claims to be extremely disciplined in maintaining a strict workout routine and never missing a day at the gym, but later casually mentions going for days without exercising due to work pressure or personal stress), Researcher X would initiate a conversation to explore the reasons and gain a deeper understanding. The researcher believes that this contradiction does not mean that the participants are not trustworthy, but it means that the researcher needs to engage with the participant and talk through the differences in order to understand the "context for the differences observed" (Carter & Little, 2007, p. 1321).

In this approach, therefore, the strength of the research stems from the subjectivity of it, and that the results of the research will be based on the specific interactions between the researcher and the participants as well as the constructs that arose from their interactions. If another researcher conducts a similar study in a similar (or even in the same) setting, the results would be different—although there might exist some commonalities.

On the other hand, if the researcher believes that participants are not active in knowledge creation (instead they are the subjects to be studied), the researcher will try to be as objective as possible with their interaction with the subjects. Let's call them "Researcher Y." The Researcher Y's aim, in this case, is to report the participants' values, beliefs, and attitudes as accurately as possible, without having to engage with them in knowledge creation. In this approach, the researcher would be wary of inconsistencies, deceptions, and errors on the parts of the participants. The aim for the Researcher Y would be to get inside the heads of the participants and attempt to "see the world through their [participants'] eyes" (Carter & Little, 2007, p. 1321). The Researcher Y expects that the findings of this research can be replicated to a certain extent by another researcher in the same or similar setting, using the same methods.

Below is a table to summarize the two distinctive approaches of the two hypothetical researchers to epistemological standings and the ways in which these approaches affect the research design and data reporting processes (see Table 2). As shown in Table 2, the contrast between the two epistemological stances is stark, and it illustrates the immense influence the epistemological stance has on the researcher's relationship with the participants.

Epistemology's influence on the research is not limited to the relationship between the researcher and the participants; it also influences how the researcher proves the validity of their data and of the data analysis (Carter & Little, 2007; Creswell, 1994; Guba & Lincoln, 1994).

Table 2*Research Design Process Based on Epistemological Differences*

| | Researcher X | Researcher Y |
|--|---|--|
| Participants' involvement in the research | Participants are active in knowledge creation. | Participants are not active; they are subjects to be studied. |
| Data collection and data analysis | <ul style="list-style-type: none"> ● Focuses on collecting as many and varying data as possible. ● Makes a detailed record of their own participation in the research. ● Emphasizes the subjectivity of the research. ● Analyzes the data throughout the research. | <ul style="list-style-type: none"> ● Focuses on verifying the accuracy of the data. ● Do not include their participation in the research. ● Emphasizes the replicability of the research and generalization of the results. ● Analysis of data comes after all the data have been collected. |
| Writing styles | <ul style="list-style-type: none"> ● Uses the first person, "I" throughout the publication. ● Applies Detailed explanation of their own participation in the research. ● Includes the Importance of the issues, struggles, and triumphs of both participants and the researcher. | <ul style="list-style-type: none"> ● Uses Passive voice, more traditional writing style. ● Applies little to no information about their own participation in the research, especially with that of the participants. ● Does not include the personal struggles and issues throughout the research except for the ones related to the research results (reliability issues). |

The Researcher X, who believes that participants are active in knowledge creation, would create a different research design from one who believes otherwise. For example, in a

study where the participants are active in knowledge creation, collecting as varying and as many different data as possible is more important than proving the accuracy of said data (Carter & Little, 2007). Since the Researcher X is also an active part of the knowledge creation, they would likely make a detailed record of their own participation in the research in order to utilize this information in data analysis. Moreover, the researcher would be more inclined to analyze the data throughout the data collection process.

Conversely, the Researcher Y, who does not believe that knowledge is a process of co-creation with the participants, would focus on verifying the accuracy of the data collected. They would triangulate the data [a combination of various data collection methods in order to increase the accuracy of the data] (Patton, 1999) and most likely analyze the data *after* they have collected all of the data. They would use and combine more than one type of data collection methods (e.g., interviews, focus groups, surveys) to increase the accuracy of their conclusions. Moreover, it is highly probable that the Researcher Y would send the individual transcripts to the participants to ask for corrections. If time and resources permit, the researcher might train some of their colleagues to analyze a portion of their data in hopes their analyzes would yield the same results as the researcher. It is also common to run a test survey with a different set of participants (those who are similar to the research participants) to test the generalizability of the research findings (Carter & Little, 2007).

In addition to its impact on data collection and analysis processes, epistemology influences how the researcher expresses themselves in their publications. The researcher demonstrates the influence of methodology in their research through their writing style and the ways in which they communicate with the reader. For example, a researcher who believes that participants are active in knowledge construction would write with their own voice, in first person, and would include their participation in the research as well as the participation of the participants. The researcher would also include the issues they have faced, triumphs

they have had, and the struggles of themselves as well as of the participants. On the contrary, the researcher who believes participants are the subjects that are studied and thus have no role in creating the knowledge would write in a way that is more “traditional” academic writing style. This researcher would use the objective third person throughout the paper. They would not include any personal information about themselves and report the findings of the research in a manner that is strict-to-the-facts and with care to not infuse personal bias or subjectivity.

It is important to mention that the characteristics of the two epistemological approaches represented in the table above do not encompass all the details of the two approaches. There are no clear lines separating one method from the other, therefore, it is up to the researcher (and the research context) to apply the methods as they see fit. This table is created to illustrate the epistemology’s impact on the research and how differences between the researcher’s approach can lead to different ways of accepting how the knowledge is acquired and how the reality is formed. Thus comes the notion of *subtle reality*, a different approach to the reality in qualitative research, which will be discussed in the next section.

Subtle Realism

The subtle realist believes that phenomena being investigated are independent; however, the knowledge of the phenomena is constructed by the inquirer (Hammersley, 1992). Simply put, the subtle realist thinks that the phenomena or events they are studying exist on their own, outside of the researcher's observation or study. Phenomena do not change just because the researchers are looking at them or trying to understand them; however, the way the researchers understand or learn about these things is shaped by the researchers. A simple example for this would be watching a movie: A movie is an independently existing phenomenon which has a script, actors, director, settings, and plot that exist in a certain form regardless of the viewer. A movie has its own inherent structure and content which does not

change based on who watches it; however, how people interpret and understand the movie depends on their own thoughts, perspectives, and experiences.

For a constructivist this concept would be slightly different. A constructivist might say that the movie does not exist as a fixed entity independent of the viewer. Instead, the reality of the movie, including aspects like the plot, characters, dialogues, visuals, and soundtrack, is constructed by each viewer's unique interpretation. This means that the reality of the movie is heavily influenced by the viewer's personal and social context. For a subtle realist, the physical aspects of the movie (e.g., the scenes, the sounds, the dialogues) are technically the same for every viewer; however, for a constructivist, each viewer essentially constructs their own version of the movie through their interpretation. For a constructivist, every viewer watches a slightly different movie, because their personal and social contexts shape their understanding and interpretation of the movie. The movie becomes a subjective experience, rather than a fixed, independent entity.

Finally, for a realist, the movie exists as it is. It is not influenced or constructed by the viewer. Each scene, each line of dialogue, and each character remains the same regardless of who is watching it. The realist perspective sees the movie as an external reality that remains constant and objective, independent of the viewer's understanding or interpretation.

The extent to which the knowledge is constructed has been addressed by Hammersley, who states that: “*All* [emphasis added] knowledge is constructed, and is never solely a matter of strictly logical inference from given data but rather involves imagination and ampliative inference (inference where the conclusion reached is not already contained in the starting assumptions)” (2018, p. 3). In other words, subtle realism argues that the inquirer does not *recreate* phenomena, rather the inquirer simply constructs answers to questions about phenomena. For instance, following the previous example of movies, a movie is an independently existing phenomenon with its own script, actors, director, settings, and

storyline that exist in a certain form regardless of the viewer: a movie has its own inherent structure and content which does not change based on who watches it. When a person watches a movie, they bring their own experiences, knowledge, and questions to the experience. They may focus on different aspects of the movie based on their personal interests or background. If they are interested in fashion, they might pay attention to the costumes, or if they are interested in history, they might focus on the historical accuracy of the story. In doing so, the audience are not recreating the movie itself—the movie remains unchanged. What changes is the viewer’s understanding and interpretation of the movie: They construct their own knowledge about the movie based on their personal lens and the questions they are asking. According to the concept of subtle realism, in this example, the movie is the independent phenomena, and the audience are conducting their own knowledge about the movie, hence creating a unique understanding and interpretation of the film.

According to subtle realists, research cannot be absolutely objective as it involves the subjective perceptions of the researcher, therefore, choosing a different methodology for a given research will produce different results. This, however, does not “preclude the existence of independent phenomena and that objects, relationships and experiences could be studied” (Duncan & Nicol, 2004, p. 455). To that end, subtle realism is parallel to naive realism as it retains the notion that there is an independent, knowable phenomenon. But it differs from naive realism by *not* disregarding the notion that knowledge is based on assumptions and thus is a human construction. Subtle realism, therefore, seeks to address this challenge by providing researchers with the philosophical assumption in which researchers still view people’s beliefs as constructions but at the same time they do not assume that people’s accounts are necessarily true or rational in their own terms (Hammersley, 1992). Social science researchers in particular, therefore, must include both participants’ perspectives of the world and those of themselves while conducting research.

In conclusion, subtle realism can be described as a midpoint of naive realism and constructivism. Ontologically, it retains the idea from naive realism that the world is made up of independent phenomena, but argues that researchers do not have direct access to those phenomena. Epistemologically, subtle realism retains the idea from the naive realism that the world is knowable, but argues that researchers' understanding is shaped by cultural assumptions. In other words, the subtle realist approach states that there is an objective reality and it is possible to learn about the phenomena that create this reality. In the subtle realist approach, the phenomena being investigated are independent; however, the researcher constructs the knowledge of each. In other words, “we can recognise the fact that accounts are selective constructions without abandoning the idea that they may represent phenomena independent of themselves, and of the researcher” (Hammersley, 1992, p. 5). As a different approach to inquiry and inquirer, subtle realism enables the combination of various research methodologies and helps researchers who are navigating through the blurry borders of research methodologies.

In its simplest form, subtle realism argues that there is a real world out there, and we learn about the world through constructing knowledge about it ourselves. So, there can be different perspectives on the same thing that are all valid in their own way. Overall, subtle realism encourages scientific investigation of social phenomena, which means using methods to carefully study the world and learn about it.

Positionality

My research interest is focused on exploring the relationship between university rankings and undergraduate students' perceptions of the quality of the institution in which they choose to enroll. My research questions are specifically focused on investigating whether there is alignment between the criteria undergraduate students use in their decision-making process, including university rankings, and their perceptions of the quality of the

institution. The second question examines the extent to which an institution's ranking aligns with undergraduate students' perceptions of quality. Overall, the focus of my study is on understanding the impact of rankings on students' perceptions of the quality of higher education institutions.

As an international undergraduate student, I had a personal interest in this topic that was rooted in my own experiences of choosing which university to attend abroad. While in Turkey, I had limited access to information about universities in the US or Europe. It was not possible to visit campuses in the US or Europe, not possible to ask friends and family who may have had prior experiences, and not possible to ask my previous professors who have not been to the US, or if they did, their exposure was limited. Consequently, I relied heavily on university rankings to make my decision.

I remember spending many hours scrutinizing rankings, weighing them against each other, considering different weightings and sub-categories, and trying to discern what they might mean for my future prospects. In hindsight, I am not sure whether my reliance on these rankings was due to the lack of other reliable sources of information that could provide me with an insight into these foreign universities or simply the connivences of accessing the rankings. Regardless of my motivation, the more I looked at the rankings, the more they became a proxy for quality (i.e., the higher a university ranked, the better the education I presumed I would receive).

After attending the institution that I selected, I realized that while the rankings did offer some indication of the quality of education I would receive, they did not fully capture the opportunities and possibilities available to students. This experience has motivated me to investigate whether the use of rankings in decision-making aligns with students' actual perceptions of the quality of the institutions as my doctoral research.

I would like to note that prior to coming to the US, I had not experienced being a minority in any significant way in my home country, as I was a white, straight male in Turkey. Upon arriving on campus in the US, I realized that my position as an international student placed me in a minority group. This, however, does not prevent me from recognizing that my identity has historically been privileged within the US context and that it has afforded me certain advantages that others may not have. Considering that my research is situated at a university in the US, I am aware of the need to approach this research with sensitivity and to acknowledge the diversity of experiences among undergraduate students, and I carried this attitude throughout the interviews with participants. I believe that my personal experiences provide a unique perspective that can contribute to a more nuanced understanding of the impact of university rankings on undergraduate students.

As a graduate student studying undergraduate students' perceptions, my positionality adds another dimension to the research. Although we share the commonality of being students in higher education, our experiences are distinct. My status as a graduate student provides me with a level of academic maturity that may differ from undergraduate students' perspectives. It also creates a certain degree of separation between me and my participants, which can be advantageous in mitigating biases.

Given my background and experience with university rankings, there is a potential for bias in my interpretation of the data. I approach the topic with pre-existing assumptions on the usefulness and limitations of these rankings, which could unintentionally influence how I view the data: I might be more inclined to highlight data that supports the notion of the limitations of rankings in capturing the quality of the student experience, as was the case in my own educational journey.

Acknowledging these potential biases, however, was the first step towards mitigating them. In order to ensure the reliability and validity of my research, I have adopted several strategies to manage these biases.

Practicing reflexivity was the first of these strategies. This involved a critical look into my own beliefs, values, and experiences related to university rankings and their potential influence on my understanding and interpretation of the data. Consciously reflecting on these influences helped me identify when they might be affecting my analysis and enabled me to take appropriate steps to “neutralize” them.

I also applied triangulation as a technique to verify my findings. That is, I used multiple data sources, including my interview data, institutional documents, reports, legislations, and existing literature. Doing so helped me mitigate personal bias and increased the credibility of my findings.

Lastly, I aimed at maintaining a systematic and transparent approach in my data analysis. In the previous section, I provided comprehensive descriptions of how data were collected and analyzed, along with the rationale behind my interpretations. I hope that this transparency allows readers to understand how I reached my conclusions and evaluate the validity of my interpretations.

I humbly believe that these measures helped me ensure that my research findings reflect a balanced and thorough interpretation of the data. Although my experiences inevitably shape my perspective on the topic, I believe they also enrich my understanding of the issue and enable me to provide valuable insights that contribute to the literature.

Research Design

The primary aim of this study was to investigate the decision-making criteria of undergraduate students at a flagship state university, focusing on (1) the role of university rankings in their decision-making process, and (2) their perception of an institution's quality.

At the conclusion of the previous chapter, I noted that two key research questions, which guided my study, emerged from the literature review:

1. How well do undergraduate students' decision-making criteria, including university rankings, align with their perceptions of the quality of their chosen institution?
2. To what extent does an institution's ranking correspond with undergraduate students' perceptions of its quality?

These guiding questions shaped the research design and served as a foundation for the study. I chose to concentrate on undergraduate students as their perspectives regarding rankings are underrepresented in the literature. For my study, I employed a case study approach to explore the perspectives of students at a specific institution, taking into account the study's ontological and epistemological approach, thereby providing me with a more nuanced understanding of student perspectives on university rankings and perceptions of quality.

The research data were collected through interviews with a sample of selected students from a Flagship State University (henceforth, FSU) in the Midwest.

A set of interviews explored students' reasons for selecting the institution, and the extent to which university rankings may or may not have impacted their decision to enroll at the institution. As described in the next section, the participants for the study were chosen among those at the institution who had considered the university ranking tables before attending the university. For the analysis, I combined research method elements from qualitative case study and theory-guided content analysis.

Qualitative Case Study

Qualitative case study methodology serves as a valuable tool for understanding complex social phenomena while capturing the holistic and pertinent aspects of real-life situations within the research context (Baxter & Jack, 2008). It is essential to address the

common misconception—prevalent especially among those unfamiliar with case study methodology—that case studies solely revolve around individuals or specific historical events (Baxter & Jack, 2008). On the contrary, case studies allow researchers to delve deeply into intricate research subjects by examining communities, interventions, and relationships. Through this comprehensive exploration that researchers are able to disentangle and reconstruct the phenomena of interest based on a diverse range of data sources. The use of multiple data sources enables a multifaceted examination of the research topic and facilitates a deep understanding of its complexity and nuances.

While the two primary approaches guiding qualitative case studies, as proposed by Stake (1995) and Merriam (1998), are both rooted in the constructivist paradigm, Yin (2003) adopts a more positivist approach (Baxter & Jack, 2008; Hancock & Algozzine, 2021; Stake, 1995; Yazan, 2015; Yin, 2003). As mentioned previously, the constructivist paradigm is based on the premise that reality is a socially constructed concept, allowing for close collaboration between researchers and participants and enabling participants to share their stories from their own unique perspectives. This close collaboration allows researchers to delve deeply into participants' narratives, ultimately gaining a more profound understanding of their worldviews (Baxter & Jack, 2008).

When employing qualitative case study methodology in research, it is essential to carefully consider the context in which it is applied. Contextual conditions typically "characterize a country, a region, or a market, based on a set of political, social, economic, and cultural dimensions, which are useful to depict how those contextual conditions differ across countries, regions, or markets" (Dantas et al., 2021, p. 53). As a result, it is crucial to take these conditions into account when interacting with participants and analyzing the data, ensuring that the unique contextual factors are adequately represented and considered in the research process.

The Research Setting and Participants

As this research was a case study, it was important to determine the basic characteristics of the study, such as the unit of analysis and the case. Baxter and Jack (2008) note that before a researcher determines the unit of analysis, they have to consider what their case is. They (2008) suggest asking the following questions, in addition to many others that one could ask themselves, in determining the case:

—Do I want to “analyze” the individual?

—Do I want to “analyze” a program?

—Do I want to “analyze” the difference between organizations? (p. 546)

Based on my research questions, the case was the Flagship State University (FSU) in the Midwest, and the unit was the perspective of college students at that university. To that end, my research was about analyzing the individual experiences of students with regard to their thoughts on the alignment between institutional quality and rankings. The research design—developing interview questions and an exercise to gather data—was based on this aim. As Creswell (2007) points out, qualitative case study is a research design and an outcome of scientific inquiry in which the researcher investigates a case through detailed and multilayered data collection by using multiple resources, and finally submitting their findings.

It is important to note that this research study does not represent the perspectives and views of the entire student body at the university or of students at other universities; however, this case study offers a glimpse into some of perspectives regarding students’ views on rankings and institutional quality and can provide a foundation on further research on the topic.

Selection of the Site

It is imperative that I justify my site selection before delving into the theoretical framework of this section of my dissertation. I chose this particular site (FSU) for the case for various reasons: first and foremost, I was familiar with the site; its organizational culture, student body, campus, and culture, which was very beneficial to me as I did not have to spend long period of time getting familiarized with the site. Second, as a flagship state university in the Midwest, it has similar characteristics with the other state flagship universities. There are almost 4,000 degree-granting academic institutions in the US (NCES, 2020) and this site is one of the 146 institutions that are classified by the Carnegie Classification of Institutions of Higher Education as “R1: Doctoral Universities–Very high research activity” (Kosar & Scott, 2018), which suggests that the findings of this study might reflect some of the perspectives of students attending similar types of institutions.

Selection of the participants

In participant sampling, Erickson (1986) as cited by Miles and Huberman (1994), suggested working on a funneling sample sequence, starting from the outside of the setting and working towards the core. For example, in studying schools, one could start with selecting a district or region, then schools within the district, and then teachers within the schools. This approach allows for a more focused sample selection while still ensuring a diverse and representative sample.

[Erickson] would begin with the school community (census data, walk around the neighborhood) and the center, the school and the classroom, staying several days to get a sense of frequency and occurrence of different events. From there, the focus would tighten specific events, times, and locations. Periodically, however, Erickson would “follow lines of influence... into the surrounding environment” to test the

typicality of what was found in a given classroom, and to get a better fix on external influences and determinants. (Miles & Huberman, 1994, p. 28)

In my case of studying rankings, quality, and undergraduate students at one institution, my theoretical sampling, then, had already been in the making with the school community (having been familiar with the institution, I had a general grasp of the campus culture and student population). I then chose to focus on (a) a certain student group (undergraduates), then (b) on students from certain colleges that offered undergraduate classes, then (c) on those who were knowledgeable about rankings, and then (d) on those who were both knowledgeable and had examined rankings before making their college decision.

At this particular institution, undergraduate students represented about 65% of the total student population; therefore, I wanted to primarily focus on their perspectives. Moreover, as a graduate student myself, focusing on undergraduate students' experiences allowed me to be more impartial with respect to the data I collected. Selecting participants based on their colleges instead of, for example, programs or majors, stemmed from the fact that I wanted my sample to represent each college at the institution. As the scope of this study was limited—this was a doctoral research study conducted by one person with almost no budget—it was not probable to find participants representing each program within each department across the institution.

In order to continue with the selection of the aforementioned participant group, I tracked Baxter and Jack's (2008) procedures, who created a case study model based on the conceptual framework of Miles and Huberman (1994). The model included: "(a) identifying who would take part in the study and who would be excluded, (b) describing the existing relationships based on logic, theory and/or experience; and (c) providing the researcher with the opportunity to gather general constructs into intellectual 'bins'" (Miles & Huberman, 1994, pp. 18-19).

Based on the aforementioned conceptual framework, I first identified what the case would *not* be, and I placed several “boundaries” on my case, based on (a) time and place; (b) time and activity; and (c) definition and context (Baxter & Jack, 2008; Creswell, 1998; Miles & Huberman, 1994; Stake, 1995). The boundaries were the thick red lines that indicated what would and would not be studied in my research since these boundaries defined the size and depth of the study.

For this study, time and place meant selecting undergraduate students who were currently enrolled in the flagship state university, who had scrutinized rankings before they chose to enroll in their program; time and activity meant designing interview protocols, surveys, and an exercise within the time frame of this study based on the aforementioned selected group; and definition and context meant being very articulate about my aim (answering the research questions) and the reason why this study was important for the scientific community (although rankings had been studied extensively, there was no study looking at this very issue from the perspective of undergraduate students at the flagship state university).

Due to the small-scale nature of the study, it was essential to obtain holistic yet manageable data. Miles and Huberman (1994) recommend an "opportunistic" approach to sampling, allowing the sample to evolve once data collection began. This approach was followed for this study, whereby after determining student eligibility for participation based on their responses to a questionnaire, a sample of students was selected to participate in the study based on a set of identifiers that focused on securing data that addressed the research questions. To achieve this purposive sample, participants chosen were representative of the university's undergraduate student population. The participants fulfilled the following criteria: (1) enrolled in one of the colleges that offer undergraduate education at the

institution; (2) possessed knowledge and interest in university rankings; and (3) considered university rankings before enrolling at the institution.

Although my research examined a single case—a university's ranking and its relationship with the quality of education according to its undergraduate students—there were various social phenomena that I needed to take into account such as the colleges of the students, the students' year in school, their GPA, etc. which made participant selection a daunting task. In selecting my sample, I relied on Miles and Huberman's (1994) detailed roadmap for qualitative case study sampling. Ultimately, based on the selection criteria described above, 32 participants from the undergraduate programs at FSU chosen to participate in the study.

Data Collection

Stake (1994) suggests that there are three categories in case studies: intrinsic, instrumental, or collective, while Yin (2003) divides case studies into three categories: explanatory, exploratory, and descriptive. While no researcher is obligated to follow a strict guideline regarding their research design, it is beneficial to seek guidance from the pioneers of the field. Neither Yin nor Stake claim that their categorization is absolute. On the contrary, both researchers suggest researchers look at other studies and scholars to determine the best guidelines for their research. As a qualitative researcher who is following a constructivist approach underpinned by the subtle realist paradigm, my research project has benefited from Stake's categorization since his approach provides a solid base to situate my study.

My study, therefore, can be defined as an *intrinsic* (Stake, 1994) case study. Stake (1994) notes that intrinsic case study is used when the researcher has a genuine interest in the case they are exploring. The researcher's purpose is to understand the case as best as possible even when the case does not involve a particular issue or characteristics.

Participant recruitment

In the execution of this research study, I applied several strategies to recruit participants. Online, I specifically targeted students at FSU by engaging with them on a dedicated subreddit, an online forum on Reddit popular among this demographic. I also leveraged word-of-mouth advertising to spread information about the study.

I also utilized a snowball sampling method, by encouraging participants to share the research opportunity within their own networks, hence extending the reach of the recruitment process. Teaching Assistants at FSU also played a significant role in reaching out to potential participants.

I also recruited participants through posters and flyers about the study by prominently displaying them around the university campus and in shops in the nearby vicinity, attracting the attention of students frequenting these areas.

The recruitment efforts culminated in 73 students completing the initial pre-survey. After reviewing the responses and verifying participant eligibility, 41 students were deemed eligible for the study. Out of these 41 students, however, 9 participants were unable to attend the interviews due to various reasons. Consequently, a total of 32 students were ultimately selected and interviewed as part of the research process.

To gather data from students, a semi-structured interview protocol with pre-formulated questions was designed (see Appendix 3). During the interviews, there was room for exploration by asking additional questions during the conversation. Students were asked a series of questions focused on university rankings, quality of institution, their experiences at the institution, and their perspectives on these topics. Based on students' responses, questions were followed up with additional questions to probe specific issues students arose. Although the interviews conducted virtually over Zoom, each interview was recorded and transcribed, and all identifiable information were removed—only after that I deleted the video and audio

recordings. When the interviews lasted more than an hour, student's permission to continue was acquired verbally.

Interviews with the Participants

Between December 2022 to March 2023, I conducted 32 interviews with 32 undergraduate students enrolled at Flagship State University (FSU). Initially, I had scheduled a total of 41 first interviewees; however, for one reason or another, nine of those were canceled. After the 25th interview, it appeared that some data saturation was reached; however, I continued with the remaining seven interviews as they had already been scheduled.

As their responses to the initial questionnaire indicated, all participants had prior knowledge of university rankings before enrolling at FSU, and they continue showing interest in rankings, however to a different extent. To pursue responses to my research questions, I utilized interview data as the primary source of information (see: Appendix 3: Interview Protocol). On average, the interviews lasted one hour each. They were conducted virtually and were audio recorded for later transcription. After transcribing each interview, the video and audio recordings were deleted to ensure the participants' privacy and confidentiality.

Before starting the interviews, I conducted four pilot interviews to test my questions and improve the questionnaire. I did not inform the participants of these interviews that they were pilot interviews in order to ensure that the questionnaire would be genuinely put into test. Following the pilot interviews, two initial questions were updated, and one question was completely removed from the questionnaire.

The questions that were updated are presented below:

Original question: "Is there a relationship between university rankings and university quality?"

Revised question: “In your opinion, on a scale of one to ten, how close do you believe the relationship is between university rankings and university quality, with 1 being no relationship and 10 being completely related. Please elaborate on why you chose that number.”

Original question: “Which ranking tables are you the most familiar with?”

Revised question: “Which ranking tables or system are you the most familiar with? Which one is the most important to you? What are your thoughts about the specific ranking tables?”

The data collected from the pilot interviews are not included in the data analysis. Evidence of data saturation included a consistent pattern of responses among participants and a lack of new insights or themes emerging in the later interviews. This indicated that the data collected were sufficient to address the research questions and that further data collection would likely not yield any new information. Reaching data saturation was important, as it indicated that the sample size was adequate to arrive valid conclusions and make generalizations regarding the research population.

Overall, the interviews provided a rich and diverse range of students' perspectives on university rankings and institutional quality.

To protect confidentiality, participants were identified by a "participant number," which was assigned randomly, rather than their names in the text (see Table 20 in Appendix 4 for the details of the participants). Moreover, in order to protect the anonymity of participants as much as possible, I have chosen to use ranges rather than specific numbers when reporting participant demographics. This approach allowed me to provide key information about the study's participants without disclosing any personally-identifiable information. The quotations used in this study were lightly edited to maintain their meaning without altering or distorting their original intent, such as making some minor changes to improve grammar and

syntax. For example, the original quote by Participant 27 and its modified version can be seen below:

Original quote:

“Research aspects shouldn’t be ignored. For example, like the percentage of students, you know, who are like able to find research positions; or the research output and and you know the number of citations in high impact journals. I think that these things are relevant metrics and should not be ignored.”

Edited version:

“Research aspects shouldn’t be ignored, such as the percentage of students who are able to find research positions, research output, and the number of citations in high impact journals. These are relevant metrics that should not be ignored.”

Another example, this time from Participant 1, can be seen below:

Original quote:

“My neighbors, you know the person sitting next to me, I don’t care about them. I don't really care what their gpa or sat was when they got into the school. I care that the classes a good class, and i'm learning a lot from the class, and for that to occur, for it to be a good class, you need to have a good professor, somebody who cares about students, somebody who cares about their work. Somebody is trying to teach the students.”

Edited version:

“I don’t care about the person sitting next to me. I don't really care what their GPA or SAT were when they got into the school. I care that the classes are a good class, and I'm learning a lot from the class, and for that to occur, for it to be a good class, you need to have a good professor; somebody who cares about students, somebody who cares about their work. Somebody who is trying to teach the students.”

I aimed at capturing the insights and perspectives of undergraduate students at FSU regarding their criteria for selecting an institution to enroll in and their perceptions of the quality of the institution. In particular, my research questions were focused on exploring the alignment between the criteria undergraduate students apply in making enrollment decisions and their perceptions of the quality of the institution. I also sought to investigate the extent to which an institution's ranking aligns with undergraduate students' perceptions of quality. By exploring these research questions, I hoped to gain a deeper understanding of the factors that influence undergraduate students' enrollment decisions and the ways in which they perceive the quality of their chosen institution.

FSU is known for its vibrant and inclusive campus community, evidenced by the diversity of its student body. Given the diverse student body that attends FSU, I sought to capture perspectives of students from various backgrounds. The participants in the study intentionally included students from different ethnicities, genders, ages, classes, and academic programs, offering a wide range of experiences and insights. The shared interest in university rankings among the participants served as a common thread that attracted them to the study.

By utilizing interviews, it was possible for me to explore individual participants' perceptions and attitudes towards university rankings and institutional quality. Conducting in-depth interviews enabled me to discover the factors influencing students' experiences and opinions of university rankings and university quality. During the data analysis process, crucial patterns and themes emerged from the participants' responses that provided me with a rich and robust picture (or understanding) of students' perspectives on ranking systems.

Interview eligibility questionnaire

Before the interview, 73 respondents, reflecting diverse backgrounds, who agreed to participate in this study were asked to answer the following pre-qualifying questions to determine their eligibility:

1. Are you an undergraduate student at the flagship state university (FSU)?

Y/N

2. At which college/school of the FSU are you currently studying?

A.

3. Are you familiar with any of the following?

A. US News and World Report College Rankings Y/N

B. Times Higher Education Rankings Y/N

C. QS World Rankings Y/N

D. Academic Ranking of World Universities (ARWU or Shanghai Rankings) Y/N

4. Did you consider the ranking of the academic program you listed in question #3 before deciding which university to attend?

i. Y / N

5. Did you consider the ranking of the institution before deciding which university to attend?

i. Y / N

Students who agreed to complete the survey were required to leave pseudonym names and an email address of their choosing (which did not have to be a university-affiliated email) so that I could get in touch with them. The students who answered "yes" to all five questions which included "yes" to at least two options on the third question were considered eligible for the study. In total, 73 students completed the eligibility survey, with 41 students eligible to

participate in the study. Ultimately, 32 eligible students were interviewed for the study.

These students were invited to participate in interviews that focused on university rankings, quality of university, and their perception on relevant topics.

Pre-interview questions regarding the participant demographics

The 32 students who were scheduled for an interview were asked to answer a set of questions prior to engaging in an interview. The pre-interview questions were designed to gather demographic information about the participants. Students were notified that their responses would be kept strictly confidential, and no student would be identified in any reports of the research. Each student was assigned a made-up ID number and that number was used in transcribing their interview responses. Whenever individual quotes are included, participants are described either generically (i.e., a participants) or with an anonymous qualifier (e.g., Participant 1, Participant 10, etc.).

The pre-interview questionnaire was composed of six questions:

1. What year of college are you in?
2. At which college are you studying?
3. What gender do you identify as?
4. In which state/country did you live before attending the flagship state university?
5. What is your GPA?
6. How old are you?

It was imperative that I justify why these questions were important for my research: Questions 1 and 2 were perhaps the most important data I collected regarding participants' demographics, as they provided the information on participants' college and year of study. Questions 3, 4, 5, and 6 provided me with basic information that I could use in my reporting, as it was important to enrich the data I collected. Moreover, although

unlikely, if I noticed a certain pattern among certain groups, this might have been further explored.

Participant Demographics

Among the 32 individuals who were interviewed, approximately 60% identified as male (19 individuals), while 40% identified as female (12 individuals). One participant chose not to disclose their gender. About 45% of the participants (15 individuals) were seniors, approximately 23% (7 individuals) were juniors, and both sophomores and freshmen accounted for about 16% each (5 individuals per group). The majority of participants, approximately 80%, had a GPA higher than 3.30 (on a 4.0 scale). In terms of field of study, the largest group of participants belonged to the Humanities (13 individuals), representing 35%, followed by Engineering, which comprised approximately 21% of the total (7 individuals). With regards to their previous state of residency, there were roughly the same number of participants from in-state (15) and out-of-state (16), with one participant choosing not to disclose this information. Interestingly, students' familiarity with university rankings showed a decline after enrollment, with the average score dropping from 7.2 out of 10 pre-enrollment to approximately 4.8 post-enrollment, a pattern that was also observed during the interviews. A detailed breakdown of participant demographics can be found in Table 20 in Appendix 4. Each column in Table 20 represents a distinct category of participant information, with rows containing specific details. These categories include:

- Participant: identifies each participant by a number.
- Gender: identifies the participant's gender as male, female, or nonbinary as reported by the participants.
- Age: specifies the age range of the participant.
- College: identifies the participant's field of study.

- Year: identifies the participant's current academic year (i.e., freshman, sophomore, junior, or senior).
- GPA Range: specifies the range of the participant's grade point average.
- Non-Traditional: identifies participants who have non-traditional student characteristics, such as being over 24 year-old as defined by National Center for Education Statistics (NCES, n.d.), attending part-time, financially independent from parents, working full-time while enrolled, having dependents such as children or other family members, being a single parent, and having obtained a GED or high school completion certificate rather than a traditional high school diploma (NCES, n.d.).
- Previous State of Residence: Indicates whether the participant is an in-state student (same state as the FSU) or out of state student.
- Familiarity with Rankings before enrolling in and after enrollment: Indicates participants' familiarity with the university rankings both before and after enrolling in the university, as reported by the participants. Reporting was done based on a 10-point scale with one meaning "not at all familiar" and ten being "extremely familiar."

Interview Protocol

The following protocol includes open-ended questions that allowed me to focus on the crucial points while they allowed me to elaborate on the responses of the participants.

A. Rankings

The purpose of the first part of the interview protocol was to learn about students' overall perspectives on how they viewed and perceived university rankings. This was important because the rankings influence students' opinions of higher education institutions. Identifying the ways in which the students perceive rankings can help us understand the extent to which rankings play a role in decision-making.

1. What sources influence your opinion on higher education institutions? (Friends, peers, media, rankings, etc.)

2. On a scale of one to ten, with one being "not at all familiar" and ten being "extremely familiar", to what extent are you familiar with the university rankings in general? Please elaborate on why you chose that number.

Sub question: How do you think that university rankings are determined?

3. Which ranking tables or systems are you the most familiar with? Which one is the most important to you? What are your thoughts about the specific ranking tables or systems?

4. Do you know how your institution is currently ranked? If so, what is the current rank and what do you think about that ranking?

Sub question: How about your department? Do you know how your department is ranked? What is the current rank of your department and what are your thoughts about that ranking?

5. On a scale from 1 to 10 with 1 being not at all important to 10 being critically important, how important was an institution's ranking to you when you were selecting colleges to apply to? Please elaborate on your response. Why was the ranking important/not important? If not important, what other factors influenced your decision? If very important, how did it affect the institutions you applied to and how you approached the application process?

Sub question: How familiar were you with university rankings before enrolling at your institution, and how familiar are you currently?

6. Why do you think there is a big emphasis on rankings?

7. Whom do you believe cares most about an institution's ranking? Current students, prospective students, parents, the institution, legislators, the local community, etc.?

8. If rankings are to be used, what do you believe should be the things that should be considered in the rankings?

B. Quality

This questionnaire was to figure out the *participants' perspectives on institutional quality* and its alignment with the rankings. This was important because in the literature review that I presented in Chapter 2; it was highlighted that different stakeholders may have diverse interpretations of quality in higher education. By capturing students' perspectives on quality, whether or not their views align with the constructs of quality embedded in ranking systems can be assessed. This was vital since a misalignment could result in students being guided by rankings that do not accurately reflect their own priorities or values.

1. What does quality of a university mean to you?
2. What makes a university high quality?

Sub question: What makes a department high quality? How is the quality of a department connected to the quality of a university?

3. In your opinion, on a scale of one to ten, how close do you believe the relationship is between university rankings and university quality, with 1 being no relationship and 10 being completely related. Please elaborate on why you chose that number.

Sub question: If there is a relationship, please describe it. Why do you believe there is a connection, and is this relationship warranted? Does actual quality of the institution inform the rankings, or do the rankings give the perception of institutional quality? Please explain.

4. Has your perception of the quality of your institution changed after you have begun your studies? Please explain. Why has it changed or not changed?

Data Analysis

Yazan (2015) notes that there is no single, universally accepted consensus on case study methodology, and that for a long time the methodology has been characterized by varying, often contested, approaches. I draw on the works of Stake and Merriam, whose

perspectives and approaches to case study resonate with my study. Stake argues that in addition to constructivism, existentialism (non-determinism) should supplement the constructivist epistemology in research because the final written product (report, dissertation, paper, etc.) by the qualitative researcher will be read by an audience who will then also construct their own reality or knowledge on top of the already constructed reality and knowledge of the researcher. This is in line with Stake's conclusion of qualitative case study that "there are multiple perspectives or views of the case that need to be represented, but there is no way to establish, beyond contention, the best view" (Stake, 1995, p. 108).

Merriam argues that constructivism, as an epistemology, should guide qualitative case study because, according to the author, qualitative research is based on the view that reality is a construct which is a result of individuals interacting with their social worlds (1998). Merriam, therefore, notes that there are multiple interpretations of reality and that the qualitative researcher's main interest is to make sense the knowledge constructed by people.

One important thing to point out here is Stake's and Merriam's respective stances compared to Yin. As a positivist, Yin stands out from the other two, both ontologically and epistemologically. In many cases, it is possible, or even expected, that a researcher, who positions themselves much closely subscribed to Merriam's or Stake's epistemological stance, would disregard Yin's perspective—or vice versa. Consequently, perhaps the best approach to analyze data in my study is an inductive approach, as discussed by Merriam, which begins with empirical observations, searching for patterns in those observations, and finally coming up with a theory regarding those patterns. Given the nature of my research questions, this approach is more suitable than a deductive approach, which applies more of a top-down inquiry strategy; that is, coming up with a theory first and then collect data to analyze and test the hypothesis (Azungah, 2018).

Differences in data collection

Stake (1995) argues that data collection is mostly impressionistic; that is, data are already informally collected when the researchers first became familiar with the phenomenon they study, and that there is no particular point where data collection begins. Yazan (2015) notes that for emerging researchers, such as a PhD student like myself, it is harder to follow Stake's approach simply because it requires a precise distinction between what is researcher's impression and what is actual data. Merriam, on the other hand, places the most emphasis on how to collect data. Merriam (1998) extensively discusses the procedures and techniques used in the data collection stage: what type of questions to ask, how to ask good questions, what to avoid, how to create an excerpt from the transcribed interviews, and so on.

As I follow a subtle realist approach, in which the trustworthiness of collected data depends on the plausibility and credibility, I subscribe to subtle realist notion that if the claims made by the participants are sufficiently plausible based on our existing knowledge beyond a reasonable doubt, then the researcher accepts them. If they are not, then the researcher asks whether the participant's claim is credible, by which Hammersley (1992) means "whether it is of a kind that we could reasonably expect to be accurate, given what we know about the circumstances in which the research was carried out" (p. 70).

Consequently, establishing my research design before the research begins helped me analyze my data based on its plausibility and credibility since the premise of my data collection and data analysis methods remained the same throughout the research. In that sense, Merriam's approach to data collection was more comprehensive than Stake's as it provided a very useful guideline to emerging researchers in their data collection stage.

Differences in data analysis

From a constructivist epistemological stance, Stake (1995) argues that the main source of data is the researcher's impressions of the analysis and how the researcher makes

sense of them. (Additionally, as I mentioned above, Stake also believes that the reader will have their own impressions of the written analysis.) Stake notes that since the data are interwoven with the impressions of the researcher throughout the data collection phase, there is no need to separate data collection and analysis processes and that the researcher should conduct data analysis and collection phases simultaneously. Yazan (2015) notes that there are two strategic ways to handle analyzing case study data in Stake's methodology: (1) categorical aggregation and (2) direct interpretation, none of which was utilized in this research since Stake's approach to data analysis and collection phases does not benefit my research. I chose to follow Merriam's detailed data analysis approach as it better served my philosophical stance regarding ontology and epistemology as it "seems to be mostly complementary not only for Stake's but also Yin's rendition of case study" (Yazan, 2015, p. 145).

Merriam discusses the importance of consolidation, reduction, and interpretation of what participants have said and what the researcher observed in data analysis, which differs from what Stake suggests (impression and intuition) in terms of the data analysis process. Merriam offers a clearer and easy-to-follow process for analyzing data, which I also followed in this research.

Although Merriam suggests collecting and analyzing data at the same time (similar to what Stake recommends), she does not insist that it is the only way of data collection and analysis. She notes that data analysis is the "process of making sense out of the data. And making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read—it is the process of making meaning" (Merriam, 1998, p. 178). More importantly, Merriam argues that data analysis is at its most important stage once data collection ends.

Furthermore, Merriam (2002) notes that data analysis is an inductive process. That is, the researcher first starts with a unit of data (any meaningful word, narrative, phrase, and so on) and then finds another unit of data, and then another, and compares these units of data with each other, while also looking for common patterns throughout the entire data. What comes out of this process is called codes, which emerge throughout the data analysis process. Correspondingly, I analyzed my data utilizing an inductive approach and identified codes based on the transcribed text. As part of the final stage of data analysis, I strived to provide a holistic and rich description of the phenomenon I investigated, introduced the key codes, concepts, and themes of my research, and described the interwoven connections between the themes in the next chapter.

My data analysis process

The coding process and theme identification were initiated as soon as I began my interviews. For my analysis, I employed an inductive process, with themes and codes deriving from the data itself rather than being predetermined. During the transcription of the interviews, recurrent words, phrases, or ideas that were relevant or interesting in relation to the research questions were highlighted. I revisited the transcripts several times, each time with fresh perspectives that allowed for continuous refining and revising of the initial codes.

Manual analysis

At this point, it is important to justify my decision of *not* utilizing qualitative data analysis software, such as NVivo, for my analysis. I must start by noting that I do acknowledge that these programs could certainly enrich and insightfully facilitate the data analysis process. I did, however, choose to conduct the analysis manually for several reasons.

First, I believe that manual coding allowed me to engage more closely with the data. This close interaction led to a deeper understanding and yielded insights that might have been overlooked if the process was automated or semi-automated. By reading, re-reading, (and re-

re-reading!) and interpreting each piece of data, I believe I was able to extract richer meaning and recognize subtle nuances more effectively. Also, by analyzing the data manually, I believe that I reduced the risk of overlooking important aspects of the data.

Second, the flexibility that comes with the manual coding also fit well with my research process. As I delved deeper into the data, I continually discovered new insights that prompted me to refine, merge, or separate codes, categories, or themes. This might not have been the case with software tools, which typically require substantial time and effort to alter coding structures once they have been established.

Finally, when I manually analyzed the data, I was able to be attentive to important nuances in students' inflections and word emphases that software systems often fail to capture. This then allowed me to have more accurate interpretations of what students' intended to say.

The emergence of themes

Initially, I applied open coding; dividing the data into distinct parts, and examined them for similarities and differences (Creswell, 1998). This enabled me to assign preliminary codes to the data. The codes could be a word, a phrase, or a sentence from the interview that captured the core of the participant's response.

The next phase was axial coding, where I sought connections among the identified codes, as this entailed grouping similar codes together and finding relationships between different codes. (Creswell, 1998). This process helped me develop categories or themes that represented a higher level of abstraction than the individual codes.

During the selective coding process, I further refined these categories and validated them by referring back to the original data (Glaser & Holton, 2004). I examined the relationships between categories and their contribution to the theoretical understanding of the research questions. The guiding principle for my decision-making was the research questions and the purpose of the study. If a code or a theme was relevant to the research questions, I

retained it. If it was not, I discarded it. I tried to remain open-minded and was prepared to explore unexpected themes that emerged from the data, as long as they enhanced my understanding of the research topic. (For example, this was how the “undergraduate students’ perception of the FSU” emerged as a finding.)

The final set of codes and themes represented my interpretation of the data and were employed to generate insights and answer the research questions. It is important to note that the process was not linear but cyclical, in which I constantly revisited the data, the emerging codes, and the developing themes.

To illustrate the process of data analysis, below I explain the emergence of one of the themes of the study: "Relationship between university rankings and institutional quality."

Table 3

The Process of the Emergence of a Theme

| Steps | Example |
|------------------|---|
| Open Coding | <p>Interview statement: "I doubt the accuracy of these rankings" → Code: Skepticism about accuracy.</p> <p>Interview statement: "I've noticed that departments' quality varies even within top-ranked universities." → Code: Variability in departmental quality.</p> <p>Interview statement: "I believe there's a positive correlation between the rankings and the quality of the university." → Code: Belief in ranking accuracy.</p> <p>Interview statement: "I think my university is good because it is highly ranked." → Code: Ranking equated to quality.</p> |
| Axial Coding | <p>Codes: "Skepticism about accuracy" and "Variability in departmental quality" → Subtheme: Skepticism.</p> <p>Codes: "Belief in ranking accuracy" and "Ranking equated to quality" → Subtheme: Confidence.</p> |
| Selective Coding | Subthemes: "Skepticism" and "Confidence" → Theme: Relationship between university rankings and institutional quality. |
| Theme(s) | Relationship between university rankings and institutional quality |

(It is important to note that this is a shortened example of a complex process to represent the process as clearly as possible. The actual coding process involved many more codes and subthemes, due to the complexity and richness of the data I collected in the interviews.)

First, during the open coding phase, I examined interview transcripts and highlighted significant statements or phrases. For instance, a participant said, "I doubt the accuracy of these rankings." This was labeled with a code such as "skepticism about accuracy." When another participant mentioned, "Not all departments in a university are of the same quality," a code was labeled as "Variability in departmental quality." These codes were specific and directly tied to the participants' expressions. When similar codes emerged from similar expressions and notions, I moved on to the next step.

Once I had a set of codes, I proceeded to identify relationships between different codes. As illustrated in the Table 3, the codes "skepticism about accuracy" and "Variability in departmental quality" both reflect a degree of doubt or skepticism about the direct relationship between university rankings and institutional quality. Consequently, I grouped these codes under the subtheme "Skepticism."

Similarly, I had codes such as "positive correlation between rankings and quality," that touched upon the relationship between rankings and quality. These codes later formed the subtheme "Confidence."

The process of identifying subthemes was all about finding connections between related codes and grouping them accordingly. Once I identified the subthemes, I then combined these to form the "overarching theme," which in this case was the "Relationship between university rankings and institutional quality."

This process was repeated for all the different codes, subthemes, and finally themes identified in the study, such as "Relationship between university quality and departments," "Sources that influence undergraduate students' opinion on higher education institutions,"

and so on. The decision on what constitutes a code, subtheme, or theme was made based on the recurrence, relevance, and significance of the ideas conveyed in the data. Themes that did not directly contribute to answering the research questions or that are not substantiated by enough data were discarded.

In the final phase, I revisited the original data, constantly comparing it with the emerging themes to ensure the accuracy of the interpretations. The result of this process was a final set of themes that provided a structured interpretation of the data and formed the basis of my findings. I then used these themes to answer the research questions.

In the end, data analysis process was a deeply engaging and iterative process for me, and it required a high degree of immersion in the data, critical thinking, and patience. It was a difficult task to stay true to the data while draw out meaningful and significant interpretations. By the end of this intensive process, I felt that I had captured a rich and nuanced understanding of the participants' experiences and perspectives regarding university rankings and institutional quality.

In hindsight, however, I realized that what could have tremendously helped me in this process would have been to maintain a reflective journal to record my thoughts, ideas, and questions that arose while engaging with the data (Ortlipp, 2008). This journal would have proved invaluable during the analysis process, helping me keep track of the iterative nature of qualitative research, as well as making my role in the research process transparent. I did not, however, employ this for various reasons. My main reason is that I believed keeping a journal would have drawn me to the thoughts and ideas I had recorded, and it would have prevented me from approaching my data with a fresh set of eyes with each reread and review. This was, however, proven not to be the case and the process taught me the value of maintaining a reflective journal for future research.

This was an important takeaway for me and highlights the ever-changing, ever-evolving nature of research. As I advance in my research journey, the value of maintaining a reflective journal will be a key consideration in the design and execution of future qualitative studies.

Limitations of the Study

This study has several limitations, primarily due to its focus on a single student group (undergraduates) at a state university and the examination of the research topic from a single group's perspective. Although the study's sample was not large, several valuable findings emerged that contribute valuable information to an under-researched aspect of a highly relevant phenomenon. These findings, albeit limited, may serve as a foundation for further investigation into students' perspectives on rankings and institutional quality.

The participants were undergraduate students from FSU, a public higher education in the US, and as mentioned previously, their perspectives may not necessarily represent those of students from other institutions, countries, or educational levels. While this is not necessarily a limitation for a case study, as case studies are employed to find out about the specific characteristics of a certain case, the participants of the study may have been influenced by the specific characteristics of this institution, including but not limited to its culture, curriculum, student body, faculty, and location. This context should be considered when interpreting the findings of this study.

One important limitation of the study lies in the fact that the study did not include graduate students, whose experiences and perceptions might differ from undergraduate students, particularly regarding research-focused issues, which are a major component of ranking systems. Inclusion of graduate students in studies examining perceptions of institutional quality and rankings is critically important, mostly because their experiences and priorities in education can significantly differ from those of undergraduate students. Although

the findings from this study are centered on undergraduate perceptions, they could provide a useful starting point for examining similar issues in graduate education. The study's methodology and the themes emerging from the data are applicable to the graduate context, with certain modifications. Future studies could build upon this research by incorporating the perspectives of graduate students, comparing and contrasting these with undergraduate perspectives to develop a more holistic understanding of students' perceptions about institutional quality and rankings. This could contribute to more balanced and influential strategies regarding rankings, and could help to improve the educational experience for all students.

Chapter 4

Findings

Keeping in mind that this was a case study, I aimed at providing valuable insights into the diverse experiences of FSU students and highlighted the importance of considering the perspectives of a diverse range of students in assessing the quality of the institution. Such is the nature of case studies, the results of this study may not be transferable to other student populations or institutional contexts; however, I believe that they provide some level of insight towards the university rankings and institutional quality with respect to the attitudes of students attending institutions similar to FSU.

Summary of Major Themes and Findings

Based on the analysis of the 32 interviews that I conducted, a set of themes and codes emerged that provided insights into students' perspectives on university rankings and institutional quality. The findings from the analysis suggest that undergraduate students' opinions about higher education institutions are influenced by rankings; however, students prioritize subject (departmental) rankings over the overall ranking of the institution, as individual departments significantly differ in quality, resources, and faculty. This suggests that a more nuanced approach to evaluating universities based on individual departmental strengths and weaknesses is necessary for building a comprehensive understanding of the educational opportunities offered by an institution.

The findings of the study also reveal that students' opinions on institutions, although important, are not influenced by university rankings only. The findings suggest that students' opinions are also influenced by various other sources, including family, media, online sources, and to a much lesser degree, peers. Not surprisingly, the publicly perceived reputation of the institution was found to be an important factor in students' decision-making processes.

Introduction to Findings

The findings of the study reveal that there is general agreement among the diverse group of student participants that when it comes to institutional quality, they place importance on teaching quality and good faculty. They also agree on the importance of personal fit (i.e., the compatibility and suitability between the student and the university) and experiences in the decision-making process regarding the relationship between university quality and departments. Furthermore, they acknowledge the various factors that determine department quality, as well as the sources that influence undergraduate students' opinions on higher education institutions.

The findings, however, reveal that there are several differences among students in how they view the accuracy of university rankings to reflect institutional quality. There are also differences among students in their views on the relationship between university rankings and institutional quality, how university rankings are determined, the perceived reputation of FSU, and the criteria that should be included in the rankings.

I conducted an analysis of the demographic data to explore potential patterns and differences between groups in terms of their familiarity with university rankings before enrolling and after enrollment at FSU. The groups considered for the analysis were based on gender, academic year, and in-state vs. out-of-state students. When comparing male and female participants, no clear differences were observed in their familiarity with university rankings before and after enrollment. Both genders reported varied levels of familiarity with rankings, suggesting that gender did not play a significant role in shaping their awareness and understanding of university rankings.

Comparing freshman, sophomore, junior, and senior students' perspectives, the data revealed a decrease in students' familiarity with university rankings for all groups after their enrollment at FSU. Based on the 10-point scale presented to students during the interviews,

freshmen reported an average decrease in familiarity from 7.0/10 before enrollment to 4.0/10 after enrollment. Sophomores experienced a decrease from an average of 6.4/10 before enrollment to 4.2/10 after enrollment. Juniors displayed a decrease in familiarity from an average of 6.29/10 before enrollment to 5.29/10 after enrollment. Similarly, seniors reported an average decrease in familiarity from 7.46/10 before enrollment to 4.92/10 after enrollment.

Table 4

Familiarity with Rankings Before and After Enrollment by Academic Year

| Academic Year | Before Enrollment | After Enrollment |
|---------------|-------------------|------------------|
| Freshman | 7.0/10 | 4.0/10 |
| Sophomore | 6.4/10 | 4.2/10 |
| Junior | 6.29/10 | 5.29/10 |
| Senior | 7.46/10 | 4.92/10 |

This pattern suggests that as students progress through their academic journey, their reliance on university rankings in determining institutional quality may decrease.

A comparison of in-state and out-of-state students across all academic years revealed a similar decrease in their familiarity with university rankings before and after enrollment. In-state students reported an average decrease in familiarity from 6.93/10 before enrollment to 4.93/10 after enrollment. In comparison, out-of-state students reported an average decrease in familiarity from 7.23/10 before enrollment to 4.38/10 after enrollment. These findings suggest that geographical background does not seem to significantly influence a student's familiarity with university rankings as they progress through their academic journey.

In summary, the data analysis did not reveal any noteworthy differences between groups based on gender, academic year, or geographical background. No noticeable patterns were found when comparing these different demographic groups in relation to university rankings before and after enrollment. The absence of such patterns suggests that factors other than demographics may be more influential in shaping students' perceptions of university

rankings. It is, however, worth mentioning that the demographic data collected in this study provided essential context for the participants' responses and helped ensure a diverse representation of students in terms of age, college, year, GPA range, non-traditional status, and previous state of residency.

Relationship Between University Rankings and Institutional Quality

The findings from the data suggest that there is some relationship between institutional rankings and quality. While some students indicated that they were skeptical about the rankings, approximately 60% of participants believed that the rankings *somewhat* reflected institutional quality. Table 5 provides an overview of the key theme and corresponding subthemes, as well as a summary of key participants' perspectives pertaining to the relationship between higher education rankings and overall institutional quality.

Table 5

The Relationship Between Rankings and Institutional Quality

| Theme | Subthemes | Key Participant Perspectives |
|--|------------------|---|
| Relationship between university rankings and institutional quality | Skepticism | <ul style="list-style-type: none"> • Doubts about rankings' accuracy • Variability in quality across departments and faculty. |
| | Confidence | <ul style="list-style-type: none"> • Positive correlation between rankings and quality |

One of the most important research aims of this study was to discover if undergraduate students see a relationship between university rankings and institutional quality. I asked participants to rate the degree of connection between university rankings and institutional quality on a scale of one to ten, with 1 representing no relationship and 10 representing strong relationship. Students were mixed in their responses regarding this relationship. Less than half of the participants expressed skepticism about the accuracy of the

rankings and the rankings' ability to reflect the actual quality of institutions. For instance, one participant classified the quality of a university as “either good or not, independent of any ranking systems, based on how a student benefits from their education” (Participant 7). Another student noted: “The actual quality of an institution has nothing to do with its rankings” (Participant 18).

Other participants also expressed skepticism about rankings' ability to reflect the quality of institutions.

If I were to rate the relationship between rankings and institutional quality, it would be a 2 or 3 out of 10.... After having experienced the university, I see how the rankings translate to the actual university experience, and it's not as important as I initially thought. (Participant 13)

Another participant stated that:

[Rankings are] not very reflective [of institutional quality]. I don't rely on the ranking systems.... Let's say my university is ranked and given a score for the teaching experience.... and it's an 8 out of 10. I wouldn't be able to compare an 8 to a 9 or 7 or 6. It's difficult to gauge. [Therefore] I don't think rankings are reflective of quality overall. (Participant 30)

Several students noted the variability of rankings (i.e., rankings of universities or departments can differ based on the specific criteria used to evaluate them) as well as the quality of teaching, campus life, jobs after graduation, diversity, and research output, which can vary considerably from department to department and from professor to professor, making it difficult to make institution-wide generalizations about rankings and overall institutional quality. This finding suggests that students' view of institutional quality is

informed by the particular units in which their work is situated rather than by overall institutional rankings.

Yet more than half of participants expressed high confidence in the rankings, believing that there is a positive correlation between a university's ranking and institutional quality. These students did acknowledge, however, that the rankings do not always *fully* reflect the true quality of an institution. Nonetheless, they still argued that there was a tangible connection between rankings and quality. For example, among some of the comments these students offer are:

I haven't attended Harvard but I know it is highly ranked and widely regarded as a good school.... I believe there is some connection between university rankings and university quality.... But I'm not really sure if the rankings are entirely accurate or if they just give the perception of institutional quality.... So, yes, I do believe there is legitimacy to the rankings, but it's hard to say to what extent. (Participant 26)

Personally, I haven't visited those colleges [the participant had previously mentioned a few colleges that he had considered before attending FSU] or done anything related to them, so I based my understanding solely on the rankings. The rankings give me some idea of the quality, but I understand that they are not entirely reliable.

(Participant 11)

When it comes to how rankings relate to the quality of schools, I'd say it's an 8 [out of 10]. If there's a big difference in rankings between two schools, it's more likely that the higher-ranked offers a better education.... But if we start digging into the details.... like one school being just a little higher in the rankings than another, it

doesn't necessarily mean it's better in terms of education quality. Those small differences might not actually matter that much. (Participant 8)

Although the findings reveal a mixed view among students of the relationship between rankings and institutional quality, there were more students (60%) who believe rankings reflect the quality of an institution to some extent than students who believe there is no relationship (40%). The data analysis also found mixed results regarding the reliability of the rankings as measures of institutional quality. While 40% of the students consider rankings as unreliable indicators of institutional quality, the remaining 60% find them to have a high correlation with the institution's quality level.

Relationship Between Quality of a University and Quality of University Departments

To further the questions of “How well do undergraduate students' decision-making criteria, including university rankings, align with their perceptions of the quality of their chosen institution?” and “To what extent does an institution's ranking correspond with undergraduate students' perceptions of its quality?”, I examined the issue of the relationship between departmental rankings and institutional rankings.

The data analysis regarding the relationship between a university's overall quality and the quality of its departments, as perceived by participants, revealed that some participants believe that departmental quality is independent from the overall institution, while others believed that it is closely linked to the institution's quality. Highly controversial opinions were also expressed regarding the inclusion of certain programs within universities. Table 6 lists the key theme and corresponding subthemes, as well as a summary of participants' perspectives pertaining to the relationship between the quality of the overall university and its departments.

Table 6*The Relationship Between University Quality and its Departments*

| Theme | Subthemes | Key Participant Perspectives |
|---|--|--|
| Relationship between university quality and departments | Linkage | <ul style="list-style-type: none"> • University quality is linked to department quality. • Not all departments are equal within the same university. |
| | Factors determining department quality | <ul style="list-style-type: none"> • Faculty qualifications • Research output • Curriculum • Funding • Student quality • Support resources |
| | Collaboration | <ul style="list-style-type: none"> • Close departmental collaboration in high quality institutions |
| | Controversy | <ul style="list-style-type: none"> • Certain programs do not belong in universities |
| | Prestige | <ul style="list-style-type: none"> • High perception of departmental quality in prestigious institutions • Departmental quality's link to overall university reputation |

In UNESCO's World Declaration on Higher Education (1998), it was stated that "Quality in higher education is a multidimensional concept, which should embrace all its functions and activities: teaching and academic programmes, research and scholarship, staffing, students, infrastructure and the academic environment" (p. 1). One important aspect of discussing the quality of a university has been the relationship between the quality of a university and the quality of its academic units (i.e., departments) or different subjects. The director of one of the most influential rankings, QS, stated that: "Subject rankings are fast becoming more influential than the overall rankings we produce every September.

Ultimately, for many students, the standing of an institution in their subject of choice influences their choices far more than their overall standing” (QS Quacquarelli Symonds, 2018, para. 11). Correspondingly, I asked participants their views on this topic, and although the majority believed that overall quality of a university is directly connected to the quality of its departments, several students noted that not all departments are created equal, and there could be vast differences in quality between departments within the same university. For example:

Well, as I mentioned before.... a high-quality institution has all departments connected in some way. However, I have a somewhat controversial opinion that there are many departments in US universities [and colleges] that are of lower quality compared to others within the same institution. (Participant 19)

Having a top department in one part of the institution could potentially contribute to the overall quality of the university. But it also means that lower-performing departments can also bring down [the institution's] overall quality.... On our campus, some departments have strong reputations and offer excellent job prospects for graduates, while others may not fare as well [in these areas]. (Participant 11)

My department is higher [ranked] than the overall school. I think it is a pretty good school for engineering.... I don't think all other departments are [of] same quality. Many graduates from these departments may struggle to find jobs that match their skillset after graduation. (Participant 8)

It is important to note that the participants overall agreed that the quality of a university department depends on various factors, including “the qualifications of its faculty

members,” its “research output,” its “curriculum,” “the level of funding,” “the quality of its students,” and “the support and resources available to students and faculty.” They argued that, while the overall quality of a university might have an impact on its departments, it is not the only determining factor.

In contrast, other participants argued that departments of a high-quality institution are all connected in some way, with faculty members collaborating wherever possible. In turn, this contributes to an institution-wide, overall quality of the university. Participants suggested that at high-quality institutions, each department would be of the highest possible quality, leading to little to no difference in quality between departments. Conversely, lower quality institutions were perceived to have more discrepancies in quality across their departments.

When I raised an additional question regarding this perception, prompting that some have suggested that there is a difference in terms of the popularity of Harvard Business School and Harvard Graduate School of Education, one participant responded: "I'm sure the Business School is more famous, but I bet the other one [Graduate School of Education] has the best faculty and students as well." This response exemplifies the idea that for institutions that are highly prestigious, departmental quality is generally perceived to be as high as the overall quality of the institution. This suggests that for other institutions that are not highly regarded, departmental quality cannot be judged based solely on the overall reputation of the university, but rather must be evaluated on their individual merit. As Participant 1 pointed out:

If for some reason, the University is able to attract the best economics, and economy teachers, students, and researchers in the world, but not the best psychology professors in the world, then, of course, the economics department could be higher quality than the rest of the school.

There were also some highly controversial opinions expressed by some participants, such as how certain departments should not be part of the university, and that universities should focus solely on academic disciplines. Basically, they argued that certain programs should be part of trade schools and not part of a university. (Examples of this can be seen in Finnish Higher Education, where there is a distinction between universities and university of applied sciences, the latter being focused on a more hands-on approach.)

To sum up, as some participants pointed out, it is possible for a department to be of higher quality than other departments within the same university. There was a consensus, however, that the more reputable a university is the lower the difference of quality between its departments.

Sources that Influence Undergraduate Students' Opinion on Higher Education

Institutions

Results from the data analysis indicated that participants' perception of colleges and universities are significantly shaped by a wide range of external factors such as family, media, and online sources, in addition to rankings (see Table 7). Friends, surprisingly, had a much less influence compared to the other factors on participants' opinions of universities.

Table 7

Sources That Influence Undergraduate Students' Opinion on Higher Education Institutions

| Theme | Subthemes | Key Participant Perspectives |
|---|------------------|--|
| Sources that influence undergraduate students' opinion on higher education institutions | External Factors | <ul style="list-style-type: none"> • Family • Media • Rankings • Online sources • Peers |

| | | |
|--|---|--|
| | Importance of Personal Fit and Experience | <ul style="list-style-type: none"> • Importance of personal fit and experience in participants' decision-making • Diminished attention to university rankings after attending FSU • More positive experience at FSU over time • Need for prioritization of student experiences in rankings |
| | Lack of Consensus | <ul style="list-style-type: none"> • Varying source of influence depending on personal backgrounds and future goals in the university decision-making process |

The data gathered in this study suggest that while university rankings played a role in the initial decision-making process of students before attending the FSU, their focus on rankings tended to diminish after spending time at the institution. Furthermore, participants in the study identified the perceived prestige of an institution as a major factor influencing their opinions of universities. This "societal sentiment about institutional quality," as one participant described it, differs from other variables in that it is a subjective construct created in the minds of participants without a clear indicator of how or why. Participants had often well-formed opinions on prestigious institutions such as Harvard, MIT, Columbia, and Brown. When prompted as to the source of their opinions, however, they usually attributed them to a lifetime of exposure to news, opinions, stories, and other sources of information.

This is particularly interesting as students were not able to pinpoint as to what really makes an institution "prestigious" in their eyes, despite not having a single personal experience regarding that institution (e.g., Harvard). Apparently, their perception of a university's prestige was influenced by a variety of sources accumulated over their lifetimes and it cannot be attributed to a single source.

All respondents, except one, acknowledged the importance of external factors in shaping their opinion on universities. Nineteen participants, approximately 60%, specifically

mentioned the influence of university rankings in shaping their opinions of FSU. Eleven participants highlighted the importance of prestige in their decision-making process. About half of the respondents highlighted the importance of personal fit when choosing a university. While several participants mentioned location and the visual appeal of the university town as key factors for selecting FSU, only one participant mentioned visiting schools and experiencing the campus first-hand as the most important factor in their decision-making process (Participant 13). One participant noted that they were also accepted to a prestigious private university but decided to attend FSU because they found FSU's surrounding community safer than the community of the other institution (Participant 2).

It can be suggested that the sources of influence vary depending on the participants' backgrounds and future goals in the university decision-making process. This means that there were also contrasting opinions. For example, one participant noted that when applying to FSU, online sources and information they received from peers and parents were the most influential, while another participant noted that they only cared about the financial restraints of attaining a degree (in this case, the institution that offered the best financial aid was chosen). There was only one participant who mentioned the university's official website as the primary source of information when assessing which institution to attend:

I'm also influenced by location, and if there are pretty pictures on the website that make the town look nice, I'll usually look it up. This was pretty influential in determining where I went for undergrad.... I don't tend to visit websites other than the actual college website. (Participant 28)

As the data suggest, in addition to rankings, various external factors such as family, campus visits, online sources play an influential role in shaping FSU's students' opinions of the institution. Personal fit and personal experience were also crucial factors that contributed to the students' decision-making process in selecting FSU. Participant 10 stated that:

My mother thought they [university rankings] were crap and useless. She told me that a handful of times, but it was mostly because I was looking up universities in a region, and university ranking sites tended to be the first thing that popped up. If I was just looking up universities in Vermont, for example, I would end up on a university ranking site.

Furthermore, the results highlight that despite their initial focus on university rankings prior to attending the FSU, participants tended to pay less attention to rankings after spending time at the institution. The data show that, especially in the case of juniors and seniors, students' opinions of the FSU have changed over time, and that they have had more positive opinions than they had initially expected. This information illustrates the importance for colleges to prioritize student experiences in order to foster positive perceptions of the institution.

Students' Perceptions of how University Rankings are Determined

One of the goals of this study was to examine students' understanding and perceptions of how the different ranking systems are operationalized. In order to be eligible to be interviewed for this study, participants had to state that they were and still are interested in university rankings, albeit to varying degrees. This was crucial to find the right student body to interview, as the study is related to university rankings. This did not, however, prevent the study to have participants from a diverse range of colleges, backgrounds, and experiences. As this is a study on university rankings, it was important to investigate the participants' perception of how university rankings are determined.

As a researcher who has been studying rankings for half a decade, I am well-versed in the rankings' methodology, metrics, criteria, and so on. This was not necessarily the case for the students in this study. I believe that learning about how they think rankings are

determined and then comparing the data they provided with the actual methodology of the four ranking systems [(Times Higher Education (THE), QS World Rankings (QS), Academic Ranking of World Universities (ARWU), US News and Rankings (US News)] used as benchmarking tools in this study would reveal discrepancies between the ranking tables and student perspectives.

Overall, students presented a range of perspectives on how university rankings are determined (see Table 8). Some of the factors that students mentioned are related to the quality of faculty members, such as their fame or research output, while other factors are related to the outcomes of the degree, such as post-graduation earnings or quality of life after graduation. Some students also mentioned factors related to the university's resources and infrastructure, such as grants and amenities. It is worth noting that there is some variation in the specific factors mentioned by each student, but these general themes appear to be the most prominent across the responses.

Table 8

Students' Perceptions of how University Rankings are Determined

| Theme | Subthemes | Key Participant Perspectives |
|---|----------------------|---|
| Students' perceptions of how university rankings are determined | Quality of faculty | <ul style="list-style-type: none"> • A key criterion for university rankings • Importance of teaching and research excellence, and faculty engagement • Subjective nature of assessing faculty quality |
| | Student outcomes | <ul style="list-style-type: none"> • The importance of post-graduation outcomes such as employability, earnings, and quality of life |
| | Student satisfaction | <ul style="list-style-type: none"> • Need to include measures of student satisfaction in rankings • Importance of feedback on experiences during studies • Connection between the perception of institutional quality and student satisfaction |

| | | |
|--|--|---|
| | Resources and infrastructure | <ul style="list-style-type: none"> • Inclusion of resources and infrastructure in the rankings • Special focus on amenities and facilities |
| | Lack of emphasis on some ranking metrics | <ul style="list-style-type: none"> • Value of faculty quality (teaching, research, and engagement with students) • Acknowledgement of subjectivity in measuring • Importance of student satisfaction (feedback on experiences during studies) in rankings • Resources and infrastructure (amenities, facilities, campus safety) • Insignificance of GPA, SAT scores, compared to other criteria. • Student skepticism about the accuracy of rankings. |

Based on the responses from all 32 interviewees, the ranking criteria perceived as most important were mentioned in the following order, from most frequently to least frequently mentioned:

1. Quality of faculty. Respondents noted that quality included factors such as how good the faculty are at teaching and research, and also how caring and passionate they are towards students. The participants remarked this would be a difficult criterion to include in the rankings due to the complexity of the assessment.
2. Student satisfaction during their studies. Factors within this criterion include student feedback on their experiences at the institution.
3. Student outcomes. According to participants, these outcomes include factors regarding the outlook for students after they graduate from FSU, such as post-graduation earnings and quality of life after graduation.
4. Resources and infrastructure of the institution. This criterion includes factors pertaining how appealing, comfortable and accommodating students find the institution's physical space regarding its amenities, its facilities, and overall campus safety.

It is important to note that metrics that are actually being used by major ranking tables, such as GPA of incoming students, class size, international students, and employer reputation were not among the key criteria students consider. In fact, these metrics were mentioned only by a few students during the interviews. When I probed about certain metrics, such as having a Nobel Laureate faculty member or international faculty ratio (which are included in some ranking systems), students either expressed that they are not interested in those factors, would not attribute any value to them, or noted that those factors should be minor criteria in rankings, if at all considered.

It is also noteworthy that the students expressed skepticism about whether the rankings accurately reflect the quality of education at a given institution, particularly when it comes to factors that are actually used by the ranking tables. For instance, some participants shared their belief that rankings could be helpful, but they did not entirely trust them, as they sometimes felt like it was a popularity contest that did not take into account factors that mattered to them, such as the quality of teaching or the sense of community at the school. This sentiment is exemplified by Participant 16, who stated: “I believe rankings might be useful, but I can't fully rely on them... They don't really focus on what's important to me, such as good teaching or a strong community vibe at the campus.”

Similar concerns were raised by other students who had heard about universities trying to manipulate the rankings, which led them to not put too much faith in the rankings. These students emphasized the importance of visiting the campus and talking to current students to get a real sense of what the university experience was like. Participant 13 noted that:

I've read that some universities might try to play around with the rankings, so I don't completely trust them. I feel it's better to visit the campus and chat with students who are already there to really understand what the experience is like.

In some cases, participants expressed doubts about the methodologies used in determining rankings. They questioned how different schools could be compared using just a single number, considering it too simplistic. Furthermore, some students were unsure about the significance they would assign to the rankings, as they felt numerous factors contributed to what made a university good or bad, and a single list in a descending order could not provide a satisfying answer to that.

I'm not sure how much weight I would give to rankings. I feel like there are so many factors that go into what makes a university good or bad, and I don't think a single number can capture all of that. (Participant 3)

These examples demonstrate that while students recognize the influence of university rankings on their decision-making processes, they also express a certain amount of skepticism about the accuracy and reliability of these rankings. This skepticism is an important aspect to consider since it highlights the need for ranking systems to be more transparent, credible, and relevant to the factors that students actually value in a quality institution.

Diminished Interest in Rankings After Enrolling in College

Upon entering college, students often find themselves in a whirlwind of new experiences and challenges that take precedence over their initial concerns. One intriguing finding of this study is the diminished interest in university rankings among students after enrolling at their chosen institution. Table 9 presents how the majority of participants displayed a decreased interest in university rankings after spending some time at FSU. There are, however, a few notable exceptions: Those who were considering attending graduate school showed an increased or renewed interest in rankings during their junior and senior years.

Table 9*Diminished Interest in Rankings After Enrolling in College*

| Theme | Subthemes | Key Participant Perspectives |
|--|--------------------------------|--|
| Diminished interest in rankings after enrolling in college | Interest of rankings over time | <ul style="list-style-type: none"> • Diminishing interest on rankings over time spent at the institution. |
| | Awareness of current ranking | <ul style="list-style-type: none"> • Low awareness of institution's ranking among students • Initial interest in rankings for informational purposes |

The data analysis showed that regardless of the participants' pre-existing knowledge of the rankings, they gradually lost interest in them as they spent more time at the FSU. While all of the participants were aware of the ranking systems, only three participants indicated that they had familiarity with FSU's ranking, although they were uncertain of the precise ranking. This observation suggests that while participants may have initially been drawn to university rankings for informational purposes in consider different institutions to apply to, the rankings appear to have less importance while enrolled at the institution. In turn, students' interest in and familiarity with rankings seemed to have decreased post-enrollment. Participant 7, currently a junior, who reported their current familiarity with the rankings as 3 out of 10, exemplified this sentiment, stating "It's been a while since I've looked at university rankings... However, back in high school when I was researching colleges, I was more familiar with university rankings and would rate my familiarity at around 7 [out of 10]."

It seems that as students spend more time in their educational institutions, their concerns regarding the prestige of their colleges diminish. The findings from this research study point to this by noting that participants frequently mentioned how their questions and worries about institutional status waned over time, and were replaced by the quality of education they receive at the institution. For example, Participant 13 stated that:

My college experience taught me that rankings are merely a quick, easy sound bite that sells to some people. A number is much easier than explaining the more complex concepts such as campus life, teaching quality, and job prospects offered at an institution. As long as you can say you're in the top 20 or top 50, it's much easier, but in reality, I came to realize that rankings do not actually matter that much.

Similarly, Participant 30 noted that:

[When it comes to] choosing which college to go to, rankings can be pretty helpful. They make it easier for students to sort through all the information and claims that colleges make when they're trying to attract students.... Having rankings.... can give you a sense of which schools are considered better than others. For example, if US News says a school is 20 places higher than your other option.... Students often find that kind of information valuable. I was in the same boat back then [senior year of high school], not going to lie, but now I think rankings should not be that important in selection criteria. It took me three years to see this, though.

Participant 17 mentioned that:

Obviously, it [the importance of rankings] is not the same for me as a high school senior compared to me as a college senior. Back then, the first thing any Google search on the university I considered yielded ranking results, and I clicked on them. Today, the same search probably yields more ranking-related results, but I wouldn't click on any of them. Instead, I would reach out to faculty and ask them to recommend a few students to talk to.

The current literature appears to lack a comprehensive analysis of how undergraduate students' perceptions of rankings' significance may change over time. A longitudinal study,

and one that engages students enrolled at different types of institutions, could provide further insight into this matter by examining the evolution of college students' interest in university rankings over a longer period of time. Such a study could help identify the factors that contribute to the possible decline in the significance of rankings among college students, and illuminate how this phenomenon varies across different groups of students.

The Perceived Reputation of FSU

To further the question of “To what extent does an institution's ranking correspond with undergraduate students' perceptions of its quality?”, I investigated how the participants perceived FSU with respect to its prestige, as this was a recurring theme that emerged during interviews (See Table 10).

Table 10

The Perceived Prestige of FSU

| Theme | Subthemes | Key Participant Perspectives |
|---------------------------------|---|--|
| The perceived reputation of FSU | The quality of education at FSU | <ul style="list-style-type: none"> • Satisfaction with quality of education at the institution • Concerns about poorly organized larger classes and ineffective professors/teaching assistants |
| | Comparison to other schools | <ul style="list-style-type: none"> • A good school, but not among the very best. |
| | Factors influencing perception of institution | <ul style="list-style-type: none"> • Influence of teaching quality on the perceived quality of the institution • Larger class sizes |

The general consensus among participants is that FSU is a "good" school but not among the very best, especially when compared to top private universities in the US. One participant stated that: “I had some preconceptions about the quality of the FSU before I went there, and I guess that preconception was that it's like a public school, but among public state schools, probably one of the better ones.” This perception is consistent with the overall

ranking of FSU, which is currently ranked as somewhere between 50 and 70 by US News. It is important to note, however, while FSU may not be considered among the very best universities overall, it may excel in specific fields or areas of study. Participant 13 noted that:

My program is an excellent one. It may not be considered on the same level as MIT or Stanford, but I know that I will qualify for interviews with top companies, just like graduates from those super elite schools.

Overall, the participants suggested that FSU has a good reputation as a public state university, but may not be considered as prestigious as some of the top private universities in the US.

The majority of participants expressed their satisfaction with the quality of education they receive at FSU; and did not have any major concerns. Participant 30, a senior, remarked that: “I wasn’t sure what to expect when I came in, but I love the faculty and coursework here that I've done so far. I like it much more than when I applied.” This observation highlights the potential for students' preconceived perceptions of schools to be inaccurate, whether influenced by rankings or not. It raises the question of whether high expectations of a school may lead to disappointment, while lower expectations may result in a more positive and impressed view of the school.

There are also some participants who have raised concerns about certain aspects of their education. For example, Participant 4 argued that:

I would say that my sentiment of [FSU] is that, for the most part, I get a high-quality education at the university. But there are some issues, particularly in some of the larger classes, which were not well-organized. There are also professors who are not interested in teaching and delivering the material effectively.

Given the diverse range of backgrounds and experiences among the participants in this study, it is not surprising that attitudes towards the institution vary. The perceived quality of the institution appears to be significantly influenced by class sizes and the professors who teach the classes. Several participants across different disciplines, gender, and academic years noted that larger class sizes negatively impacted their learning experience, leaving them feeling unsatisfied with the level of education they received. Additionally, many participants expressed that the attentiveness and kindness of the professors played a significant role in shaping their perceptions of the institution.

Comparing demographic data, such as gender and academic year, with students' attitudes revealed some interesting insights. Freshmen and sophomores appeared to be more concerned with class sizes, and almost every participant emphasized the importance of professors' characteristics and attentiveness in shaping their perceptions of the institution.

Overall, the findings of the study suggest that while the institution's resources and students' preconceived notions of the institution are important factors, the classroom experience, including class size and professor quality, can significantly impact students' attitudes towards the institution. Implied in these findings is that university rankings, which are often based on factors such as resources, reputation, and selectivity, may not necessarily reflect the classroom experience that students have at an institution. It is important for university rankings to also consider factors such as classroom experience, teaching quality, and student satisfaction to provide a more comprehensive evaluation of the quality of education at an institution. This would enable prospective students to make informed decisions when selecting a university based on their priorities, preferences, and needs, and not just solely based on rankings.

What Criteria Should be Included in the Rankings?

As the debate surrounding the relevance and accuracy of university rankings continues in academia, it is essential to explore the factors that genuinely matter to students when assessing the value of their chosen institutions. In this study, I sought to understand the criteria that students believe should be considered for university rankings. Participants were asked their opinions on the criteria that should be considered for university rankings. This led to particularly thought-provoking opinions from the participants (see Table 11).

Table 11

Criteria That Should be Included in the Rankings

| Theme | Subthemes | Key Participant Perspectives |
|---|-------------------------------|--|
| What criteria should be included in the rankings? | Personal experience | <ul style="list-style-type: none"> • Critical element of university rankings. |
| | Teaching quality | <ul style="list-style-type: none"> • Crucial factor for participants' satisfaction with universities. • The importance of professors' competence, dedication, and passion in teaching quality |
| | Research output | <ul style="list-style-type: none"> • Necessity of the inclusion of research-related metrics in rankings. • Impact of research output on students' educational experience. • Emphasis of teaching quality over research in rankings. |
| | Career readiness and outcomes | <ul style="list-style-type: none"> • Importance of job placement rates, post-graduation salaries, and alumni success post graduation. • Significance of post-graduation metrics in measuring a university's success. |

Based on the analysis of the participants' responses, *personal experience* emerged as the critical factor students apply in evaluating the institution after spending time on campus. Personal experience refers to a student's subjective perception of their overall time spent on campus, which includes their education, access to amenities, the campus environment,

characteristics of professors, and other relevant factors. In identifying criteria for ranking systems, participants noted that students' personal experiences regarding an institution should be the most crucial element of university rankings. As one participant's comment exemplifies:

If university rankings are going to be meaningful, they need to incorporate every relevant aspect of the university life, including the student experience. Otherwise, the rankings are worthless and may not reflect what is actually going on at the institution. (Participant 15)

Currently, there are no major ranking systems that rank schools solely on data pertaining to students' experiences. The Student Experience in the Research University (SERU) survey, which is a multi-institutional national survey of the experiences and attitudes of students who attend research universities, includes assessments of student experiences; however, the SERU survey is not a ranking table. It might be interesting to further explore how to incorporate the results of the SERU survey results into large ranking tables such as the US News and QS.

Given that personal experience would be hard to quantify in today's ranking tables, I asked additional questions regarding what would constitute students' personal experiences on campus. Students' experience with quality instruction as identified as the most crucial factor in the majority of participants' satisfaction with FSU. According to the majority of participants, in order to accurately rank universities, it is important to consider professors' teaching abilities, such as the delivery of subject material, accuracy, and intrigue; but also their personal characteristics such as their level of passion for teaching, kindness, and compassion. As one participant emphasized, the quality of a class is determined by the professor's competence, dedication, and passion for teaching:

I don't care about the person sitting next to me. I don't really care what their GPA or SAT were when they got into the school. I care that the classes are a good class, and I'm learning a lot from the class, and for that to occur, for it to be a good class, you need to have a good professor; somebody who cares about students, somebody who cares about their work. Somebody who is trying to teach the students. (Participant 1)

Teaching is unequivocally tied to institutional and educational quality, as emphasized by the participants. The participants emphasized that rankings should not be based on factors such as campus aesthetics or Nobel laureates (a major criterion in ARWU ranking), but rather on the quality of teaching. As Participant 20 stated: "I guess it's impressive to have a Nobel Prize-winning professor at your university, but the number of people in the world who have a Nobel Prize must be such a small percentage that it doesn't seem like a particularly useful metric."

When talking about universities, especially a school like FSU, it would be extremely short-sighted to not include research in the conversation. The participants in general admitted the importance of research for a university; however, it was very clear that, for them, teaching was considered far more important than research. According to the participants, research output (e.g., number of citations in high-impact journals) are important for an institution, but have little impact on their educational experience. Participants noted that if a student values attending graduate school, then research output may hold significant importance. If the student's goal, however, is to obtain a four-year degree, then research output may not carry as much weight. Some participants acknowledged that while research output may not always be a perfect indicator of research quality, it could be the most appropriate metric (i.e., easy to measure) available for rankings. Nevertheless, the majority of participants agreed that students' experience with quality of instruction should be a core

criterion for rankings. Most also agreed that research-related metrics are relevant and should also be considered to some extent in ranking systems.

Departmental Ranking vs Institutional Ranking

Based on the data analysis, it has become evident that the participants of the study believe that the ranking of departments (or department-level rankings or subject rankings) within a university holds greater significance than the overall ranking of the institution (see Table 12). The participants rationalized this by noting that the departments within a university can significantly differ in their quality, resources, and faculty. This finding aligns with students' perceptions regarding the connection between the *quality* of departments and overall institutional *quality*, as was noted earlier.

Table 12

Departmental Rankings vs Institutional Ranking

| Theme | Subthemes | Key Participant Perspectives |
|---|--------------------------------------|---|
| Departmental ranking vs Institutional ranking | Significance of departmental ranking | <ul style="list-style-type: none"> • Significance of departmental rankings over institutional rankings • Accurate reflection of the departmental rankings regarding educational opportunities |

The data from the study suggest that the alignment of students' expectations with their actual experiences plays a crucial role in shaping their perception of the quality of education at the institution. For example, A participant from humanities highlighted that a majority of their classes were taught by graduate students instead of full-time faculty, which made them have a relatively negative image of their department. Their expectations about classes being taught by faculty were not met, and this led to a lower opinion of the institution, as illustrated below.

[My perception of the quality of FSU] has changed slightly over the course of my studies. I probably had a loftier view of it when I started... I had only grad students teaching classes, which is not a bad thing per se, but I would have liked to have had some professors teach my classes, and the fact that that never happened kind of bummed me out. That's not a very academic way to say it, but it disappointed me to some extent that I did not have a professor who is teaching me. (Participant 1)

On the other hand, another participant, Participant 23, in the field of Engineering, stated their perception of the institution, that FSU is an "above-average state school," has "pretty much remained the same since the first day [of college]," despite the fact that almost all of their courses were taught by experienced and well-qualified professors. The participant also noted that they expected "nothing less than that."

Another participant, Participant 5 in the study, expressed that they did not know the current ranking of the university, nor did they value it, but they were aware of their department ranking. The participant stated that when they had applied to the university, they were aware that their department was in the top 25 in the US at the time. The participant added that they were currently receiving the necessary experience they needed from the department, and have little to no interest in exploring the opportunities provided by the larger university, therefore, remained only interested in the departmental ranking. The participant further emphasized the importance of the departmental ranking by stating: "In my opinion, subject [departmental] rankings should be the primary factor considered while evaluating a university's educational opportunities." This perspective, which was shared by most of the other participants, both highlights the significance of departmental rankings for undergraduate students at FSU, most of whom are pursuing a specific program or discipline, and emphasizes the need for a more nuanced approach to evaluating universities based on individual departmental strengths and weaknesses.

These examples illustrate the importance of the alignment between students' expectations and their actual experiences at the institution, regardless of whether the focus is on the department or the university as a whole. This finding suggests that both departmental rankings and institutional rankings could benefit from taking into account factors that influence students' expectations and experiences, in order to provide a more accurate reflection of the educational opportunities offered by higher education institutions.

Perhaps one of the main findings of this study is the crucial role that departmental rankings play in how students who apply to universities perceive the quality of education they might receive from a particular university. The ranking of departments, consequently, should be given greater importance than the overall ranking of the institution, as it provides for students a more nuanced understanding of the kinds of academic experiences they are likely to have.

University Leadership Pays the Most Attention to University Rankings

The impact of university rankings extends beyond the decisions of prospective students, influencing a wide array of stakeholders (e.g., parents, faculty, legislators, etc.). The data analysis revealed that participants believe university leadership pays the most attention to these rankings among all stakeholder groups (See Table 13).

Table 13

Stakeholders' Interest in University Rankings

| Theme | Subthemes | Key Participant Perspectives |
|--|---|---|
| University leadership pays attention to rankings | Stakeholder interests in rankings | <ul style="list-style-type: none"> • Rankings' influence on university leadership |
| | Participants' doubts about rankings' legitimacy | <ul style="list-style-type: none"> • Doubts about the legitimacy of university rankings. • Doubts about lobbying and other questionable practices |

| | | |
|--|-----------------------------------|--|
| | Ranking interests of stakeholders | <ol style="list-style-type: none"> 1. University leadership 2. Prospective students 3. Parents 4. Current students 5. Faculty |
|--|-----------------------------------|--|

Based on the interviews, undergraduate students at FSU think that university leadership, or the institutions themselves as entities, pay the most attention to university rankings among all stakeholder groups (e.g., students, parents, legislators, prospective students, faculty, etc.) The reasoning for this, according to the participants, is that rankings are considered an important indicator of institutional success and status, and therefore, university leadership invests significant resources in improving their rankings.

It is important to note that some participants expressed doubts about the legitimacy of university rankings, and they suggested that lobbying and other questionable practices among university leadership and ranking organizations may occur to improve a university's ranking. (I must highlight the fact that these interviews were held after the Columbia University's ranking scandal, and top schools' withdrawal from the US News and Rankings. This might have played a role in the participants current mindset regarding rankings.) When asked to rank the stakeholders who are most interested in university rankings, the participants identified prospective students, parents, current students, and faculty as the most interested party following the university leadership.

This list is based on counting how many times a stakeholder was mentioned by participants. Table 14 represents the stakeholder and how many times different participants mentioned it to answer this question.

Table 14*Stakeholders' Interest in University Rankings According to Participants*

| Stakeholders | Number of mentions by participants |
|--|---|
| University leadership (proxy terms include: the leadership, the university, leaders, the administration) | 23 different participants |
| Prospective students (proxy terms include: upcoming students, future students) | 18 different participants |
| Parents (proxy terms include: families) | 14 different participants |
| Current students | 13 different participants |
| Faculty (proxy terms include: professors, teachers) | 11 different participants |

What Characterizes a Quality University?

In order to explore the research question regarding to the extent to which an institution's ranking correlates with undergraduate students' perceptions of quality, I asked participants what makes a university a quality university.

Table 15*Elements of Quality University*

| Theme | Subthemes | Key Participant Perspectives |
|--------------------|---------------------------|--|
| Quality University | Teaching | <ul style="list-style-type: none"> • Knowledgeable and passionate faculty |
| | Efficiency | <ul style="list-style-type: none"> • Importance of efficiency |
| | Administrative Costs | <ul style="list-style-type: none"> • Importance of budgeting |
| | Quality of Life on Campus | <ul style="list-style-type: none"> • Availability and accessibility of resources and services to support students' academic, personal, and social development |
| | Class Size | <ul style="list-style-type: none"> • Importance of class size |
| | Research | <ul style="list-style-type: none"> • Significance of faculty's good track record for research |

I asked participants what a quality university means to them, and given the diverse group of participants, I was not surprised to receive varying answers. The most important and frequently repeated response, once again, focused on the quality of teaching. Participants

repeatedly mentioned how crucial it is for a university to have knowledgeable and passionate faculty who can effectively teach and inspire students. However, teaching was not the only indicator. The majority of respondents mentioned that a quality university is an institution that promotes a cohesive and integrated operation, where efficiency is a top priority. Participant 14 noted that “In the US, where tuition fees are high, it is essential to ensure that the money spent is not wasted on frivolous expenses, particularly on administrative costs.”

Some participants brought up the administrative costs, which, ultimately, boiled down to having individuals on the institution's payroll who are not contributing tangibly to the university operations that directly impact students and their academic programs. It is important to note that FSU is a public institution, supported in part by taxpayers, therefore, participants might be more concerned regarding the efficiency and the efficient and effective use of public dollars.

Additionally, the quality of life on campus has also come up frequently as a crucial aspect of university quality. By quality of life on campus, participants referred to the availability and accessibility of resources and services. They argued that a quality university offers a wide range of resources and services to support students' academic, personal, and social development. Academic advising, career services, counseling and mental health services were mentioned as the most important aspects of the aforementioned resources.

Class size was also an important indicator for some of the students. This was an interesting datum, as for half of the students it was of utmost importance, while the others did not mention it at all—or if they did, they did so without attributing any meaning to it. For example, Participant 17 mentioned that “By the way, the class [they had previously talked about it] was a large one but it didn't really matter to me; I was just happy to be taking the class.” For those who stressed the importance of class size, being in a larger class meant the connections between students and faculty are lost, and students' own interest in the subject is

reduced: “I prefer smaller classes because it allows me to have more direct interaction with the professor and my classmates. It helps me stay engaged and interested in the material” (Participant 12) and “[I think] smaller class sizes are important for a better experience. In my experience [at the FSU] professors are more approachable, and I feel more comfortable participating in discussions” (Participant 24).

Finally, participants mentioned that a quality university should provide its students with a broad range of academic programs and extracurricular activities to help them explore their interests and develop their skills.

What was missing in the discussions, or not brought up by many participants without the researcher’s probing, was the research aspect, as it was in the previous findings. It is vital to acknowledge that the participants were undergraduate students who have limited experience with research, if any. It is highly probable that had I conducted the same research with graduate students, I would have received different answers. Nevertheless, a handful of participants mentioned that if the faculty have a good track record for research, it was something “positive.” Participant 27, who is planning to attend graduate school, said that: “Research aspects shouldn’t be ignored, such as the percentage of students who are able to find research positions, research output, and the number of citations in high impact journals. These are relevant metrics that should not be ignored.”

Overall Conclusions

Based on the data analysis, it appears that for the students who participated in this study, university ranking systems played an influential role in shaping their perspectives and views about FSU. The participants believe that various stakeholders, including university leadership, prospective students, parents, current students, and faculty, are also interested in rankings—albeit to varying degrees. The findings from the data analysis suggest that undergraduate students at FSU believe that the ranking of departments within a university

holds greater significance than the overall ranking of the institution. Participants stated that such department-level (or departmental, or subject) rankings provide a more accurate reflection of the educational opportunities offered within a university. They also emphasized that individual departments significantly differ in their quality, resources, and faculty, especially for lower-ranked institutions.

Although the majority of participants considered rankings as an important element in higher education, they also expressed doubts about the legitimacy of university rankings, with a few suggesting that lobbying and other questionable practices may occur between university leadership and ranking organizations to improve a university's ranking. Although there are allegations of fraud and "gaming the system" related to rankings in the literature, there is no evidence of FSU engaging in such practices. (This study does not investigate the veracity of these claims as it falls outside its scope.)

It was also suggested in the analysis that university rankings play a crucial role in shaping the perception of the quality and status of universities. Participants identified several factors that define a quality university, including teaching quality, quality of faculty, institutional efficiency, responsible use of funds, and quality of life on campus. The study emphasizes the importance of these factors in improving students' overall well-being and academic performance.

In conclusion, the study highlights the importance of university rankings in shaping the perception of the quality and status of universities in the eyes of FSU students. The study also identifies key factors that define a quality university according to undergraduate students at FSU. Future research could explore the impact of departmental rankings on the perception of the quality of universities and how universities can improve the educational experience for students.

Chapter 5

Discussion

In this study, the primary aim was to capture and explore undergraduate students' perceptions of university rankings and the factors they consider important in defining a quality university. By focusing on the responses of students at Flagship State University (FSU), the intention was to gain insights into the role of university rankings in shaping students' perceptions of quality and status in higher education institutions.

The research questions that guided this research were:

1. How well do undergraduate students' decision-making criteria, including university rankings, align with their perceptions of the quality of their chosen institution?
2. To what extent does an institution's ranking correspond with undergraduate students' perceptions of its quality?

A diverse representation of students was aimed by collecting demographic data that included age, college, year, GPA range, non-traditional status, and previous state of residency. Analyzing these data revealed that the majority of participants displayed a decreased interest in university rankings after spending some time at FSU. No notable differences were found between groups based on gender, academic year, GPA, or geographical background concerning university rankings before and after enrollment. This suggests that factors other than demographics may have a more influential role in shaping students' perceptions of university rankings.

In the findings, I tried to illuminate the significant influence of university rankings in shaping students' perceptions of the quality and status of higher education institutions. The participants acknowledged the importance of rankings in their decision-making processes when selecting a university, with a notable preference for departmental (or department-level or subject) rankings over overall institutional rankings. This finding aligns with previous

research suggesting that students tend to pay more attention to discipline-specific rankings for their academic and professional goals (QS Quacquarelli Symonds, 2018).

Several key factors emerged from the study that participants deemed essential in defining a quality university. These factors include knowledgeable and passionate faculty, institutional efficiency, responsible use of funds, quality of life on campus, and class size. These findings resonate with existing literature on students' perspectives on higher education quality, which emphasizes the significance of faculty, resources, and campus environment in shaping their educational experience (Astin, 1993; Tinto, 1993; Kandiko & Mawer, 2013).

For example, early studies by Astin (1993) found that the quality of the university experience is highly affected by the interactions between students and faculty.

The frequency with which students talk with professors outside class, work with them on research projects, assist them in teaching, and visit their homes, correlates with student grade point average, degree attainment, enrollment in graduate or professional school, every self-reported area of intellectual and personal growth, satisfaction with quality of instruction, and likelihood of choosing a career in college teaching. (Astin, 1993, pp. 383-384)

The data analysis also unveiled participants' concerns regarding the legitimacy of university rankings, as they pointed out potential lobbying and questionable practices that could influence a university's position in the rankings. This skepticism aligns with recent controversies surrounding rankings and the growing body of literature questioning the validity and reliability of ranking methodologies (Oladipo, 2022; Hazelkorn, 2011). For example, in 2022, the US News, which notably influence students' college selection decisions (Oladipo, 2022), came under scrutiny for its heavy reliance on self-reported data from universities to compile its rankings due to various scandals (Oladipo, 2022). It is important to

acknowledge the potential impact of these controversies on students' perceptions of university rankings. Future research could delve into the extent to which such events and media coverage of ranking scandals influence students' trust in ranking systems and their reliance on rankings when making decisions about their education. Also, investigating how different stakeholders, including university leadership, faculty, and parents, react to and are influenced by ranking controversies could provide valuable insights into the broader implications of these events on higher education institutions and their stakeholders.

The analysis of data also identified key stakeholders that participants believed to be most interested in university rankings, including university leadership, prospective students, parents, current students, and faculty. This finding is consistent with previous research, highlighting the importance of university rankings for various stakeholders in higher education (Hazelkorn, 2011; Goglio, 2016). For example, according to Hazelkorn (2011), the annual release of university rankings has become an important event—it generates an intense reaction that sends “shock-waves” throughout the higher education system globally. Similarly, Goglio argues that university rankings have rapidly become a major influence in the policies for higher education, despite criticisms about their methodological limitations and potential consequences.

A significant difference from previous studies was that students at FSU ranked university leadership as the stakeholder who pays the most attention to university rankings, compared to other stakeholders.

The findings emphasized the importance of addressing concerns about ranking legitimacy and incorporating relevant factors in ranking systems. By doing so, universities can enhance the credibility and transparency of rankings and provide students with comprehensive and valuable information when choosing their educational paths. Further research in this field can explore departmental rankings, the relationship between rankings

and student satisfaction, and the role of other influential factors, ultimately contributing to a deeper understanding of the dynamics that shape students' perceptions and choices in higher education.

Findings and Their Reflection on University Rankings

A crucial aim of this study was to explore the significant influence of university rankings on students' perceptions of quality and prestige in higher education institutions. A comparison of the study's findings with the criteria used by dominant university rankings can be made to determine the degree to which the rankings reflect true and accurate assessments of quality. The four dominant university rankings (QS, THE, ARWU, US News) consider some aspects of quality in their methodologies; however, according to the participants, they may not comprehensively or accurately capture the full range of factors that contribute to true assessments of quality. This includes the importance of personal experiences, subject rankings, and other factors that influence students' perceptions and satisfaction with their university experience.

In the previous chapter, I explored various themes related to university rankings, institutional and departmental quality, students' perceptions, and the factors influencing those perceptions. It is important to do a comparison of the findings from this study with the criteria currently used by major university rankings in order to determine how current rankings reflect true and accurate assessments of quality. Specifically, I examine the alignment between the criteria included in current ranking systems on the following key findings from my study.

1. Relationship between university rankings and institutional quality: While the rankings use factors such as academic reputation, employer reputation, faculty-to-student ratio, and research output, the investigation reveals mixed opinions about their accuracy in

reflecting institutional quality, emphasizing the importance of personal experiences and departmental quality.

2. Relationship between university quality and departments: Rankings primarily focus on institutional factors, not departmental ones. The investigation highlights the importance of considering department quality, which varies within the same university, and is often more relevant to students' experiences.

3. Sources that influence undergraduate students' opinion on higher education institutions: Rankings often play a role in shaping students' opinions, but the investigation emphasizes the importance of personal fit, experience, and other external factors that rankings do not fully consider, such as the quality of life on campus.

4. Students' perceptions of how university rankings are determined: The investigation reveals that students value faculty quality, student outcomes, student satisfaction, and resources/infrastructure as key factors in determining university rankings. Major ranking leagues, however, may not emphasize these factors to the extent desired by students, such as class sizes and teaching quality.

5. Diminished interest in rankings after enrolling in college: Rankings focus on attracting prospective students, and the investigation shows that their importance diminishes over time for enrolled students, who prioritize their experiences and satisfaction with the institution.

6. The perceived reputation of a university: Rankings may influence the perceived reputation, but the investigation also shows that teaching quality, compassionate faculty, and other factors contribute to students' perception of a university's quality.

7. What criteria should be included in the rankings? The investigation highlights the importance of personal experiences, teaching quality, research output, and career readiness,

which may not be sufficiently covered in current ranking systems, except for the research output.

8. Departmental ranking vs. institutional ranking: The investigation emphasizes the significance of departmental rankings, which are often overlooked in favor of institutional rankings, but hold more relevance to students' experiences and satisfaction.

9. University leadership pays the most attention to rankings: Rankings play a role in shaping stakeholder interests, especially that of university leadership, but the investigation reveals doubts about their legitimacy and potential lobbying practices.

10. Quality university: The investigation identifies several factors that define a quality university, such as teaching, efficiency, administrative costs, quality of life on campus, class size, and research. Some of these factors are not well represented in current ranking systems, leading to potential misalignment between students' priorities and the criteria used in rankings.

As I mentioned above, the four dominant university rankings (QS, THE, ARWU, US News) consider some aspects of quality identified in their methodologies; however, they may not comprehensively or accurately capture the full range of factors that contribute to true assessments of quality according to the participants of this study. This includes the importance of personal experiences, departmental (subject) rankings, and other factors that influence students' perceptions and satisfaction with their university experience.

A Comparison of Student Criteria and Metrics Used in Rankings

Below, I provide a detailed comparison of the criteria used by dominant university rankings and the extent to which they align or misalign with the findings of this study. First, I present the list of metrics used by the four major university ranking systems and then provide the alignment, or lack thereof, with the findings.

1. QS World University Rankings:

Table 16

QS World University Rankings Metrics

| Ranking Factor | Weight |
|-----------------------------|---------------|
| Academic Reputation | 40% |
| Employer Reputation | 10% |
| Faculty Student Ratio | 20% |
| Citations per Faculty | 20% |
| International Faculty Ratio | 5% |
| International Student Ratio | 5% |

Source: Adapted from "QS World University Rankings Methodology," by QS Top Universities, 2023, <https://www.topuniversities.com/qs-world-university-rankings/methodology>

Alignment: Academic and employer reputation align with the investigation findings, as they touch upon the perceived reputation of a university, which is influenced by factors such as teaching quality, class sizes, and student satisfaction. Research output (citations per faculty) aligns with the investigation findings that emphasize the importance of research output in the definition of a quality university.

Misalignment: QS world rankings do not sufficiently consider department quality, which was highlighted as a significant factor in the investigation, as it reveals the importance of considering department quality that varies within the same university. QS rankings also do not emphasize personal experiences, which were identified as a key factor in shaping students' opinions on higher education institutions. Additionally, QS rankings do not place significant weight on student satisfaction, class size, or teaching quality, which were emphasized by students in the investigation as important factors in determining university quality.

2. Times Higher Education (THE) World University Rankings:

Table 17

Times Higher Education (THE) World University Rankings Metrics

| Category | Weighting |
|--|-----------|
| Teaching (the learning environment) | 30% |
| - Reputation survey | 15% |
| - Staff-to-student ratio | 4.5% |
| - Doctorate-to-bachelor's ratio | 2.25% |
| - Doctorates-awarded-to-academic-staff ratio | 6% |
| - Institutional income | 2.25% |
| Research (volume, income, reputation) | 30% |
| - Reputation survey | 18% |
| - Research income | 6% |
| - Research productivity | 6% |
| Citations (research influence) | 30% |
| International outlook | 7.5% |
| - Proportion of international students | 2.5% |
| - Proportion of international staff | 2.5% |
| - International collaboration | 2.5% |
| Industry income (knowledge transfer) | 2.5% |

Source: Adapted from "Times Higher Education World University Rankings 2023: Methodology," by Times Higher Education, 2023, <https://www.timeshighereducation.com/world-university-rankings/world-university-rankings-2023-methodology>

Alignment: Teaching and research metrics align with the investigation findings that underline the importance of teaching quality, research output, and faculty quality in determining university quality. Staff-to-student ratio aligns with the investigation findings regarding class size and students valuing faculty quality. Research output (citations) aligns with the investigation findings that emphasize the importance of research output in the definition of a quality university.

Misalignment: THE rankings do not sufficiently consider department quality, which was highlighted as a significant factor by the participants. THE rankings do not emphasize personal experiences, which were identified as a key factor in shaping students' opinions on

higher education institutions. Furthermore, THE rankings do not place significant weight on student satisfaction or career readiness and outcomes, which were emphasized by students in the investigation as important factors in determining university quality.

3. Academic Ranking of World Universities (ARWU):

Table 18

Academic Ranking of World Universities (ARWU) Metrics

| Criteria | Indicator | Weight |
|--------------------------|---|---------------|
| Quality of Education | Alumni of an institution winning Nobel Prizes and Fields Medals | 10% |
| Quality of Faculty | Staff of an institution winning Nobel Prizes and Fields Medals | 20% |
| Highly Cited Researchers | HiCi | 20% |
| Research Output | Papers published in Nature and Science | 20% |
| | Papers indexed in Science Citation Index-Expanded and Social Science Citation Index | 20% |
| Per Capita Performance | Per capita academic performance of an institution | 10% |

Source: Adapted from "ARWU Methodology 2022," by Academic Ranking of World Universities, 2022, <https://www.shanghairanking.com/methodology/arwu/2022>

Alignment: Faculty awards and highly cited researchers align with the investigation findings that emphasize faculty quality and research output as important factors in determining university quality.

Misalignment: ARWU rankings do not focus on teaching quality, student satisfaction, class size, department quality, personal experiences, or career readiness and outcomes, all of which were highlighted as significant factors in the investigation. The absence of these factors in the ARWU ranking system limits its ability to accurately reflect the full range of factors that contribute to the true assessment of quality according to the investigation's participants.

4. US News Best Global Universities:

Table 19

US News Best Global Universities Metrics

| Ranking factor | Indicator weight |
|--|-------------------------|
| Graduation and retention rates | 22% |
| - Average six-year graduation rate | 17.6% |
| - Average first-year student retention rate | 4.4% |
| Social mobility | 5% |
| - Pell grant graduation rates | 2.5% |
| - Pell grant graduation rate performance | 2.5% |
| Graduation rate performance | 8% |
| Undergraduate academic reputation | 20% |
| - Peer assessment survey | 20% |
| Faculty resources for 2021-2022 academic year | 20% |
| - Class size index | 8% |
| - Faculty compensation | 7% |
| - Percent full-time and part-time faculty with terminal degree in their field | 3% |
| - Percent faculty that is full time | 1% |
| - Student-faculty ratio | 1% |
| Student selectivity for the fall 2021 entering class | 7% |
| - Math and evidence-based reading and writing portions of the SAT and the composite ACT scores | 5% |
| - High school class standing in top 10% | 2% |
| - High school class standing in top 25% | 0% |
| Financial resources per student | 10% |
| - Average alumni giving rate | 3% |
| Graduate indebtedness | 5% |
| - Graduate indebtedness total | 3% |
| - Graduate indebtedness proportion with debt | 2% |
| Total | 100% |

Source: Adapted from "Best Global Universities Rankings: Methodology," by US News & World Report, 2022, <https://www.usnews.com/education/best-colleges/articles/how-us-news-calculated-the-rankings>

Alignment: Research reputation and research output (citations) align with the investigation findings that emphasize the importance of research output in the definition of a quality university. Faculty resources, especially the class size and student-faculty ratio and resources for students, align with the investigation's findings.

Misalignment: US News rankings do not focus on teaching quality, student satisfaction, department quality, personal experiences, all of which were highlighted as significant factors in the investigation. The absence of these factors in the US News ranking system limits its ability to accurately reflect the full range of factors that contribute to the true assessment of quality according to the investigation's participants.

Based on the analysis of the four dominant ranking tables (QS, THE, ARWU, and US News) in relation to my research findings, it appears that THE is the most aligned with my research data, and ARWU is the least aligned.

THE aligns with my research findings in several aspects, including teaching quality, research output, and faculty quality. The staff-to-student ratio, which relates to class size and faculty quality, also aligns with my investigation's findings. There are, however, still some misalignments, such as the lack of emphasis on department quality, personal experiences, student satisfaction, and career readiness and outcomes. Also, the metrics used to define teaching quality do not fully reflect the participants' criteria.

On the other hand, ARWU has the least alignment with my research findings. While ARWU does consider faculty quality and research output, it does not focus on teaching quality, student satisfaction, class size, department quality, personal experiences, or career readiness and outcomes. These factors were highlighted as significant in my investigation, and their absence in the ARWU ranking system limits its ability to accurately reflect the full range of factors that contribute to the true assessment of quality according to my research participants.

It is important to note that although THE is the most aligned among the four ranking systems, it still has some misalignments with my research findings. Similarly, while ARWU is the least aligned, it still considers some factors that are relevant to my research.

In conclusion, while the dominant university rankings consider some aspects of quality identified in their methodologies, they may not comprehensively or accurately capture the full range of factors that contribute to true assessments of quality according to the participants. The misalignments identified suggest that the rankings overlook the importance of personal experiences, departmental rankings, and other factors that influence students' perceptions and satisfaction with their university experience.

Future university ranking systems should consider increasing the importance of factors such as teaching quality, student satisfaction, class size, and department quality, as well as highlighting the importance of personal experiences, career readiness, and outcomes. It is not an easy task to quantify and objectively and accurately reflect some of these highly subjective metrics; however, by doing so, the ranking systems could provide a more comprehensive and accurate reflection of the quality of higher education institutions, better serving the needs of students and other stakeholders in the higher education community.

Future research should investigate the impact of departmental (subject) rankings on the perception of university quality and explore how universities can improve the educational experience for students across various institutions. Additionally, research could investigate the relationship between university rankings and student satisfaction, as well as the role of university rankings in students' decision-making processes. Further studies can also explore the role of other influential factors, such as the media, social media, and peer-to-peer communication, in shaping students' perceptions of university quality and rankings. This will provide a more holistic understanding of the dynamics that shape students' perceptions and choices in higher education.

It is crucial to mention that one of the key findings of this study is the recognition that university rankings, as a system, are inherently incomplete and full of flaws. Although they strive to quantify and compare the quality of universities on a global scale, they often

oversimplify the diverse and nuanced characteristics that define educational excellence. This research highlights the limitations of relying solely on university rankings to measure quality, as factors such as quality teaching, student engagement, departmental quality are not adequately captured by these rankings.

The research utilized a case study approach, which offers a detailed description of the context and allows readers to assess its relevance to their own situations. It is crucial, however, to interpret the findings within the specific context of this institution. To address these limitations and enhance the transferability of the findings, future research should strive to include a more diverse sample of participants from various institutions, countries, and educational levels. By incorporating multiple cases or employing different research designs, future studies can contribute to a more comprehensive understanding of students' perceptions of university rankings and the factors they consider important in defining a quality university. In doing so, the scientific community will benefit from a more nuanced exploration of students' perspectives on rankings and institutional quality, which may ultimately inform the development of more effective and transparent ranking systems.

In conclusion, this study highlights the influence of university rankings on students' perceptions of quality and status in higher education institutions, emphasizing the need to address concerns about ranking legitimacy and incorporate relevant factors into ranking systems. A comparison of four major university rankings (THE, QS, ARWU, US News) revealed that while some aspects of quality are considered in their methodology, they may not comprehensively capture important factors identified by the participants. Consequently, future ranking systems should increase the importance of teaching quality, student satisfaction, class size, department quality, and personal experiences to provide a more accurate reflection of higher education quality and to better serve the needs of students and other stakeholders in the higher education community.

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Appendices

Appendix 1

Interview Eligibility Questionnaire

1. Are you an undergraduate student at the flagship state university (FSU)?
Y/N
2. At which college/school of the FSU are you currently studying?
 - a.
3. Are you familiar with any of the following?
 - i. US News and World Report College Rankings Y/N
 - ii. Times Higher Education Rankings Y/N
 - iii. QS World Rankings Y/N
 - iv. Academic Ranking of World Universities (ARWU or Shanghai Rankings) Y/N
4. Did you consider the ranking of the academic program you listed in question #3 before deciding which university to attend?
 - i. Y / N
5. Did you consider the ranking of the institution before deciding which university to attend?
 - i. Y / N

Appendix 2

Pre-Interview Questions Regarding the Participant Demographics

1. What year of college are you in?
2. At which college are you studying?
3. What gender do you identify as?
4. In which state/country did you live before attending the flagship state university?
5. What is your GPA?
6. How old are you?

Appendix 3

Interview Protocol

1. What sources influence your opinion on higher education institutions? (Friends, peers, media, rankings, etc.

2. On a scale of one to ten, with one being "not at all familiar" and ten being "extremely familiar", to what extent are you familiar with the university rankings in general? Please elaborate on why you chose that number.

Sub question: How do you think that university rankings are determined?

3. Which ranking tables or systems are you the most familiar with? Which one is the most important to you? What are your thoughts about the specific ranking tables or systems?

4. Do you know how your institution is currently ranked? If so, what is the current rank and what do you think about that ranking?

Sub question: How about your department? Do you know how your department is ranked? What is the current rank of your department and what are your thoughts about that ranking?

5. On a scale from 1 to 10 with 1 being not at all important to 10 being critically important, how important was an institution's ranking to you when you were selecting colleges to apply to? Please elaborate on your response. Why was the ranking important/not important? If not important, what other factors influenced your decision? If very important, how did it affect the institutions you applied to and how you approached the application process?

Sub question: How familiar were you with university rankings before enrolling at your institution, and how familiar are you currently?

6. Why do you think there is a big emphasis on rankings?

7. Whom do you believe cares most about an institution's ranking? Current students, prospective students, parents, the institution, legislators, the local community, etc.?

8. If rankings are to be used, what do you believe should be the things that should be considered in the rankings?

9. What does quality of a university mean to you?

10. What makes a university high quality?

Sub question: What makes a department high quality? How is the quality of a department connected to the quality of a university?

11. In your opinion, on a scale of one to ten, how close do you believe the relationship is between university rankings and university quality, with 1 being no relationship and 10 being completely related. Please elaborate on why you chose that number.

Sub question: If there is a relationship, please describe it. Why do you believe there is a connection, and is this relationship warranted? Does actual quality of the institution inform the rankings, or do the rankings give the perception of institutional quality? Please explain.

12. Has your perception of the quality of your institution changed after you have begun your studies? Please explain. Why has it changed or not changed?

Appendix 4: Participant Demographics

Table 20

Participant Demographics

| Participant | Gender | Age | College | Year | GPA Range | Non-Traditional | Previous State of Residency | Familiarity with Rankings before enrolling in and after enrolment |
|-------------|-------------|-------------|---------------|----------|-------------|------------------|-----------------------------|---|
| 1 | Male | 20-23 | Humanities | Senior | 3.50-3.80 | Transfer Student | Same as FSU (in-state) | Before: 7/10 Now: 5/10 |
| 2 | Male | Undisclosed | Engineering | Senior | 3.80-4.00 | | Out of State | Before: 9/10 Now: 4/10 |
| 3 | Female | 20-23 | Life Sciences | Senior | 3.70-4.00 | Transfer Student | In-State | Before: 6/10 Now: 4/10 |
| 4 | Female | 18-21 | Humanities | Freshman | 3.50-3.80 | | In-State | Before: 8/10 Now: 6/10 |
| 5 | Male | 20-23 | Engineering | Junior | 3.60-3.90 | | Out of State | Before: 6/10 Now: 5/10 |
| 6 | Male | 20-23 | Management | Senior | Undisclosed | First-Generation | In-State | Before: 7/10 Now: 9/10 |
| 7 | Female | 18-21 | Design | Junior | 3.40-3.70 | | Out of State | Before: 7/10 Now: 3/10 |
| 8 | Undisclosed | 31-34 | Engineering | Senior | 3.60-3.90 | Age | Out of State | Before: 8/10 Now: 7/10 |

| | | | | | | | | |
|----|--------|-------|---------------------|-----------|-----------|----------------------|--------------|---------------------------|
| 9 | Male | 19-22 | Engineering | Sophomore | 3.40-3.70 | | Out of State | Before: 8/10 Now: 6/10 |
| 10 | Male | 18-20 | Humanities | Sophomore | 3.20-3.50 | | Out of State | Before: 6/10 Now: 4/10 |
| 11 | Male | 20-23 | Management | Senior | 3.50-3.80 | | In-State | Before: 8/10 Now: 5/10 |
| 12 | Female | 20-23 | Design | Senior | 3.60-3.90 | | Out of State | Before: 7/10 Now: 7/10 |
| 13 | Male | 19-22 | Engineering | Junior | 3.00-3.30 | | Out of State | Before: 5/10 Now: 3/10 |
| 14 | Female | 18-21 | Humanities | Freshman | 3.30-3.60 | First- Generation | In-State | Before: 8/10 Now: 3/10 |
| 15 | Male | 20-23 | Humanities | Senior | 3.50-3.80 | | In-State | Before: 6/10 Now: 4/10 |
| 16 | Female | 20-23 | Humanities | Junior | 3.60-3.90 | | In-State | Before: 7/10 Now: 4/10 |
| 17 | Male | 20-23 | Management | Senior | 3.50-3.80 | | Out of State | Before: 8/10 Now: 4/10 |
| 18 | Male | 18-21 | Humanities | Sophomore | 3.00-3.30 | | Out of State | Before: 7/10 Now: 1/10 |
| 19 | Male | 25-28 | Life Sciences | Junior | 3.40-3.70 | Age | In-State | Before: 9/10 Now: 6/10 |
| 20 | Female | 20-23 | Humanities | Sophomore | 3.60-3.90 | | Out of State | Before: 7/10 Now: 7/10 |
| 21 | Male | 20-23 | Natural Sciences | Sophomore | 3.00-3.30 | | In-State | Before: 5/10 Now: 3/10 |
| 22 | Male | 18-21 | Humanities | Freshman | 3.30-3.60 | | Undisclosed | Before: 6/10 Now: 2/10 |

| | | | | | | | | |
|----|--------|-------|---------------------|----------|-----------|----------------------|--------------|---------------------------|
| 23 | Female | 20-23 | Engineering | Senior | 3.50-3.80 | | In-State | Before: 8/10 Now: 7/10 |
| 24 | Male | 20-23 | Humanities | Senior | 3.60-3.90 | First- Generation | Out of State | Before: 7/10 Now: 4/10 |
| 25 | Male | 18-21 | Management | Freshman | 3.00-3.30 | | In-State | Before: 9/10 Now: 7/10 |
| 26 | Female | 20-23 | Natural Sciences | Senior | 3.60-3.90 | | Out of State | Before: 7/10 Now: 5/10 |
| 27 | Male | 22-25 | Engineering | Junior | 3.30-3.60 | | Out of State | Before: 6/10 Now: 8/10 |
| 28 | Male | 20-23 | Humanities | Senior | 3.40-3.70 | | In-State | Before: 8/10 Now: 6/10 |
| 29 | Male | 20-23 | Humanities | Junior | 3.50-3.80 | | Out of State | Before: 6/10 Now: 8/10 |
| 30 | Female | 20-23 | Humanities | Senior | 3.40-3.70 | | In-State | Before: 7/10 Now: 4/10 |
| 31 | Female | 18-21 | Design | Freshman | 3.60-3.90 | | Out of State | Before: 6/10 Now: 3/10 |
| 32 | Female | 18-21 | Natural Sciences | Senior | 3.50-3.80 | | In-State | Before: 5/10 Now: 7/10 |

Appendix 5: Themes, Subthemes, and Key Participant Perspectives

Table 21

Themes, Subthemes, and Key Participant Perspectives

| Theme | Subthemes | Key Participant Perspectives |
|--|--|--|
| 1. Relationship between university rankings and institutional quality | 1.1 Skepticism | <ul style="list-style-type: none"> • Doubts about rankings' accuracy • Variability in quality across departments and faculty. |
| | 1.2 Confidence | <ul style="list-style-type: none"> • Positive correlation between rankings and quality |
| 2. Relationship between university quality and departments | 2.1 Linkage | <ul style="list-style-type: none"> • University quality is linked to department quality. • Not all departments are equal within the same university. |
| | 2.2 Factors determining department quality | <ul style="list-style-type: none"> • Faculty qualifications • Research output • Curriculum • Funding • Student quality • Support resources |
| | 2.3 Collaboration | <ul style="list-style-type: none"> • Close departmental collaboration in high quality institutions |
| | 2.4. Controversy | <ul style="list-style-type: none"> • Certain programs do not belong in universities |
| | 2.5 Prestige | <ul style="list-style-type: none"> • High perception of departmental quality in prestigious institutions • Departmental quality's link to overall university reputation |
| 3. Sources that influence undergraduate students' opinion on higher education institutions | 3.1 External Factors | <ul style="list-style-type: none"> • Family • Media • Rankings |

| | | |
|--|---|--|
| | | <ul style="list-style-type: none"> • Online sources • Peers |
| | 3.2 Importance of Personal Fit and Experience | <ul style="list-style-type: none"> • Importance of personal fit and experience in participants' decision-making • Diminished attention to university rankings after attending FSU • More positive experience at FSU over time • Need for prioritization of student experiences in rankings |
| | 3.3 Lack of Consensus | <ul style="list-style-type: none"> • Varying source of influence depending on personal backgrounds and future goals in the university decision-making process. |
| 4. Students' perceptions of how university rankings are determined | 4.1 Quality of faculty | <ul style="list-style-type: none"> • A key criterion for university rankings • Importance of teaching and research excellence, and faculty engagement • Subjective nature of assessing faculty quality |
| | 4.2 Student outcomes | <ul style="list-style-type: none"> • The importance of post-graduation outcomes such as employability, earnings, and quality of life |
| | 4.3 Student satisfaction | <ul style="list-style-type: none"> • Need to include measures of student satisfaction in rankings • Importance of feedback on experiences during studies • Connection between the perception of institutional quality and student satisfaction |
| | 4.4 Resources and infrastructure | <ul style="list-style-type: none"> • Inclusion of resources and infrastructure in the rankings • Special focus on amenities and facilities |
| | 4.5 Lack of emphasis on some ranking metrics | <ul style="list-style-type: none"> • Value of faculty quality (teaching, research, and engagement with students) • Acknowledgement of subjectivity in measuring • Importance of student satisfaction (feedback on experiences during studies) in rankings |

| | | |
|---|---|---|
| | | <ul style="list-style-type: none"> Resources and infrastructure (amenities, facilities, campus safety) Insignificance of GPA, SAT scores, compared to other criteria. Student skepticism about the accuracy of rankings. |
| 5. Diminished interest in rankings after enrolling in college | 5.1 Interest of rankings over time | <ul style="list-style-type: none"> Diminishing interest on rankings over time spent at the institution. |
| | 5.2 Awareness of current ranking | <ul style="list-style-type: none"> Low awareness of institution's ranking among students Initial interest in rankings for informational purposes |
| 6. The perceived reputation of FSU | 6.1 The quality of education at FSU | <ul style="list-style-type: none"> Satisfaction with quality of education at the institution Concerns about poorly organized larger classes and ineffective professors/teaching assistants |
| | 6.2 Comparison to other schools | <ul style="list-style-type: none"> A good school, but not among the very best. |
| | 6.3 Factors influencing perception of institution | <ul style="list-style-type: none"> Influence of teaching quality on the perceived quality of the institution Larger class sizes |
| 7. What criteria should be included in the rankings? | 7.1 Personal experience | <ul style="list-style-type: none"> Critical element of university rankings. |
| | 7.2 Teaching quality | <ul style="list-style-type: none"> Crucial factor for participants' satisfaction with universities. The importance of professors' competence, dedication, and passion in teaching quality |
| | 7.3 Research output | <ul style="list-style-type: none"> Necessity of the inclusion of research-related metrics in rankings Impact of research output on students' educational experience Emphasis of teaching quality over research in rankings |
| | 7.4 Career readiness and outcomes | <ul style="list-style-type: none"> Importance of job placement rates, post-graduation salaries, and alumni success post graduation |

| | | |
|---|---|---|
| | | <ul style="list-style-type: none"> • Significance of post-graduation metrics in measuring a university's success |
| 8. Departmental ranking vs Institutional ranking | 8.1 Significance of departmental ranking | <ul style="list-style-type: none"> • Significance of departmental rankings over institutional rankings • Accurate reflection of the departmental rankings regarding educational opportunities |
| 9. University leadership pays attention to rankings | 9.1 Stakeholder interests in rankings | <ul style="list-style-type: none"> • Rankings' influence on university leadership |
| | 9.2 Participants' doubts about rankings' legitimacy | <ul style="list-style-type: none"> • Doubts about the legitimacy of university rankings. • Doubts about lobbying and other questionable practices |
| | 9.3 Ranking interests of stakeholders | <ol style="list-style-type: none"> 1. University leadership 2. Prospective students 3. Parents 4. Current students 5. Faculty |
| 10. Quality University | 10.1 Teaching | <ul style="list-style-type: none"> • Knowledgeable and passionate faculty |
| | 10.2 Efficiency | <ul style="list-style-type: none"> • Importance of efficiency |
| | 10.3 Administrative Costs | <ul style="list-style-type: none"> • Importance of budgeting |
| | 10.4 Quality of Life on Campus | <ul style="list-style-type: none"> • Availability and accessibility of resources and services to support students' academic, personal, and social development |
| | 10.5 Class Size | <ul style="list-style-type: none"> • Importance of class size |
| | 10.6 Research | <ul style="list-style-type: none"> • Significance of faculty's good track record for research |