A MIXED METHODS STUDY OF ONLINE SOCIAL COMPARISON AND IMPOSTOR PHENOMENON IN UNDERGRADUATE MUSIC EDUCATION STUDENTS

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Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

December 2023

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Rinn, Thomas James. *A Mixed Methods Study of Online Social Comparison and Impostor Phenomenon in Undergraduate Music Education Students*. Doctor of Philosophy (Music Education), December 2023, 166 pp., 12 tables, 6 figures, 3 appendices, references, 148 titles.

The purpose of this study was to investigate online social comparison and impostor phenomenon (IP) in undergraduate music education students. I employed a sequential explanatory mixed models design to explore the extent to which music education students experienced IP, used Facebook, and engaged in social comparison on Facebook. I explored participants' perceptions of how they engaged in online social comparison in the context of their professional lives. In Phase 1, I surveyed participants to measure impostor phenomenon, Facebook intensity, and Facebook social comparison. Analysis of the descriptive data revealed that 77.8% of participants experienced frequent to intense IP symptoms. Facebook social comparison emerged as the only significant predictor of IP in participants accounting for 13.3% of the variance in CIPS scores. In Phase 2, I conducted focus groups to investigate participants' perceptions of how they engaged in online social comparison as related to their professional identity. The themes that emerged from the qualitative data included: (a) comparing to peers online, (b) using Facebook for professional purposes, (c) psychological effects of online comparison, and (d) withdrawing from social media to avoid adverse effects. Lastly, I integrated the quantitative and qualitative data to expound upon and confirm findings in each phase. The results indicated that as participants progressed through their music education degree program, they used Facebook more frequently in each subsequent year, leading to increased social comparison and IP.

ACKNOWLEDGMENTS

Completing a Ph.D. is impossible without a substantial professional and personal support network. To all of those who gave me permission to take this time to be selfish and grow as a scholar, teacher, musician, and person, thank you for allowing me the time and reminding me that I deserved it. To Dr. Jessica Nápoles, thank you for guiding me every step of the way from before my application to the final defense. Dr. Kristina MacMullen, you gave me the space, mentorship, and affirmation to continue to grow as a musician while also developing as a scholar. To Dr. Don Taylor and Dr. Mark Montemayor, thank you for the many hours you gave to provide guidance, support, and direction throughout the dissertation. Dr. Sean Powell, thank you for challenging me to consider broad perspectives in the field and constantly wrestle with the vocational and philosophical needs of music teacher education. Finally, thank you to the many students, past, present, and future, who have entrusted me with their knowledge and musicianship and inspired me to continue to learn and grow in new ways.

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CHAPTER 1

INTRODUCTION

Although there is a misunderstanding over the origin of the quotation, many cite Theodore Roosevelt as having penned the phrase, “Comparison is the thief of joy.” As social creatures, we each engage in comparison with others in our daily lives in personal and professional contexts. Whether we intend to or not, we compare our traits, accomplishments, and feelings to others around us. Scholars documented concerns about social comparison as early as the 1950s (Festinger, 1954), but it has garnered more attention in recent years with the proliferation of social media.

Social media use has become a pervasive element of the American society. In 2005, only 5% of American adults used at least one social media platform, and by 2021, 72% of the American public used some type of social media (Auxier & Anderson, 2021). For those aged 18–29, this statistic rises to 84% of the population. Researchers have defined social media as “web-based services that allow individuals, communities, and organizations to collaborate, connect, interact, and build community by enabling them to create, co-create, modify, share, and engage with user-generated content that is easily accessible” (McCat-Peet & Quan-Haase, 2016, p. 16). Social media is a broad term that includes online news sites, file-sharing services, and social networking sites (SNSs). SNSs require a platform where users join a social network and begin connecting or networking (Froehlich, 2020). Popular sites such as Facebook, Twitter, Instagram, Snapchat, Pinterest, and LinkedIn are all examples of SNSs. On average, users spent two and a half hours per day using social media in 2022 (Kemp, 2023). In terms of popularity, Facebook is the most widely used SNS. In 2022, Facebook reported 2.96 billion active users worldwide, with

266 million in the United States and Canada (Kemp, 2023). Because of its popularity and longevity as one of the first SNSs to gain a large, loyal user base, Facebook is the most discussed social media platform in the research literature (McCat-Peet & Quan-Haase, 2016).

SNSs provide a constantly accessible window into the lives of peers and colleagues. The ongoing stream of personal accolades, vacation photos, and various other "humblebrags" (Sezer et al., 2018) confronts the individual with a constant source of social comparison, leading people to conclude that others are "happier and living better lives" than them (Chou & Edge, 2012, p. 117). Indeed, studies have shown that Facebook use may increase the frequency one compares with others and lead to undesirable outcomes, including depression (Appel et al., 2016). As Roosevelt suggested, for some, comparison to others may have negative psychological consequences.

Individuals do not confine comparison and self-presentation to their personal lives. For example, Lenardic et al. (2022) wrote that the academic 'humblebrag' has become normalized as a requirement of academics who are racing to outperform colleagues with publications and presentations. Within music education, Powell (2021) observed that "the social tendency to compare and imitate has been morphed into an antagonistic structure" (p. 21). It is reasonable to assume that constant comparison with others in these professional settings has consequences for the individual.

Individuals may experience both positive and negative psychological effects of social comparison. Scholars have frequently observed adverse psychological symptoms associated with comparing to others they perceive as more talented or competent than themselves. As individuals judge themselves against others to evaluate their relative status, some experience

feelings such as anxiety and depression. For others, comparing to others results in substantial feelings of self-doubt or incompetence.

Psychologists Clance and Imes (1978) coined the term *impostor phenomenon* (IP) to describe a feeling of fraudulence experienced by a sample of high-achieving women. Although others viewed them as successful, these women considered themselves impostors and reported strong beliefs that they were not intelligent. They reported clinical symptoms, including anxiety, lack of self-confidence, depression, and frustration with their ability to meet self-imposed achievement standards. Since its identification, scholars have investigated IP among many populations, including working professionals (Vergauwe et al., 2015), university faculty members (e.g., Guillaume et al., 2019; Hutchins & Rainbolt, 2017; Ramey, 2022; Sims & Cassidy, 2019; Topping, 1983), undergraduate students (e.g., Lee et al., 2021; Sonnak & Towell, 2001; Sorenson, 2022), and graduate students (e.g., Gibson-Beverly & Schwartz, 2008; Jöstl et al., 2012; Sims & Cassidy, 2020). In an interview discussing her IP research with Clance, psychologist Gail Matthews estimated that 70% of the population has experienced or will experience IP at some point in their lives (Gravois, 2007).

There is strong support for the prevalence of IP in student populations. A recent review of IP literature documented that over half of the published research included university students (Bravata et al., 2020). Some scholars noted that students in highly selective and competitive environments were particularly prone to high levels of IP (Lee et al., 2021). It is unsurprising that recent investigators of IP in populations of music educators (Ramey, 2022; Sims & Cassidy, 2019) and music education students (Nápoles et al., 2023; Sims & Cassidy, 2020; Sorenson, 2022) found high levels of IP, considering the highly competitive environment

that characterizes the music education profession (Powell, 2021). As research continues to emerge in this area, music educators must gain a clearer understanding of the causes and consequences of IP within the profession.

The conceptualization of IP involves the way individuals perceive themselves in comparison to others, and there is expansive research concerning how individuals compare themselves in online environments. However, little research looks specifically at online social comparison and IP in tandem. In the one known study linking the two constructs (Guillaume et al., 2019), participants provided evidence that scrolling through Facebook and viewing others' profiles instigated impostor feelings. I have found no research investigating impostor feelings and online comparison within the context of music education. Therefore, this study aimed to explore the relationships between online social comparison and IP among undergraduate music education students.

Exploring this topic may be helpful to music teacher educators and pre-service music education students. Researchers have found higher stress levels and burnout among music education students compared to national averages and undergraduate students in other degree programs (Bernhard, 2010). Given the findings within the three bodies of research on social comparison, social media engagement, and impostor phenomenon, it is plausible that relationships exist between the constructs. If music education students and those who support them can recognize the symptoms, causes, and treatments of IP, it may lead to the improved well-being of pre-service music educators, lower stress, and longevity in the field.

CHAPTER 2

REVIEW OF LITERATURE

In his theory of human motivation, Maslow (1943) summarized what he labeled "the esteem needs" as an individual's desire for a stable positive self-evaluation, self-esteem, and the respect of others (p. 381). Within the esteem needs, he identified two sub-categories. The first included the desire for achievement and confidence in the face of others. The second contained the need for esteem or status from others, including recognition, attention, and importance. The tenets of human motivation are present in all social interactions, both in our personal lives and professional interactions with other music educators.

In this chapter I review the literature for social comparison and impostor phenomenon, two psychological constructs with foundations in Maslow's original theory. I examine research on social comparison, including the initial development of social comparison theory and its application in online contexts in the first section. In the second section, I present the literature on impostor phenomenon (IP), with sections devoted to the measurement, predictors, and consequences of IP.

2.1 Social Comparison

The human propensity to compare oneself with others influences various behaviors. An individual's perceived personal characteristics and evaluation of their abilities, opinions, and values converge in their self-concept, which is partly influenced by how they compare themselves to others (Suls, 1977). In a synthesis of three studies, including undergraduate students, Dunning and Hayes (1996) concluded that when a person receives information about what another person can or cannot do, what they have achieved, or what they have failed to

achieve, they tend to engage in comparison. Taylor et al. (1996) evaluated a substantial amount of inquiry in social comparison. They agreed that when assessing their abilities, individuals were likely to measure their achievements and misfortunes with those of others. In their evaluation of the norms of social comparison, as demonstrated by extant research at the time, Brickman and Bulman (1977) concluded that the tendency for individuals to constantly engage in comparison is an "almost inevitable element of social interaction" (p. 150). It is evident from the literature that social comparison is prevalent in human relations.

Maslow's (1943) original theory proposed that social comparison was not a learned behavior; rather, humans are predisposed to compare themselves to others. Furthermore, he believed that individuals derived this behavior from the inclination to seek social status. To evaluate Maslow's hypothesis, Anderson et al. (2015) reviewed the empirical research across a wide range of disciplines, including psychology, sociology, anthropology, economics, public health, and organizational behavior. The authors defined three primary components of status: (a) respect and admiration, (b) voluntary deference, and (c) perceived instrumental social value. For an individual to have status, others must hold them in high regard and voluntarily comply with their desires and wishes. Additionally, others must view an individual's status as a positive trait that provides social capital.

Anderson et al. (2015) also defined the conditions required to classify a behavior as an instinct. They posited that a behavior must meet four criteria: it must (a) shape long-term psychological functioning, (b) induce a wide range of goal-directed behavior, (c) have intrinsic value as an end goal, reward, or punishment, and (d) be observed across individuals that differ in culture, age, gender, or personality. Following the literature review, the authors confirmed

Maslow's theory that the desire for status is indeed a fundamental human tendency as status level affects psychological well-being, is sought after through goal-driven behavior, is not a result of a person's need to belong, and appears across a wide range of individuals. Individuals satisfy their need to elevate their status by comparing themselves to others.

Table 2.1

Festinger's Theory of Social Comparison

Hyp #	Hypothesis
I	There exists, in the human organism, a drive to evaluate his opinions and his abilities.
II	To the extent that objective, non-social means are not available, people evaluate their opinion and abilities by comparison respectively with the opinions and abilities of others.
III	The tendency to compare oneself with some other specific person decreases as the difference between his opinion and ability and one's own increases.
IV	There is a unidirectional drive upward in the case of abilities which is largely absent in opinions.
V	There are non-social restraints which make it difficult or even impossible to change one's ability. These non-social restraints are largely absent for opinions.
VI	The cessation of comparison with others is accompanied by hostility or derogation to the extent that continued comparison with those persons implies unpleasant consequences.
VII	Any factors which increase the importance of some particular group as a comparison group for some particular opinion or ability will increase the pressure toward uniformity concerning that ability or opinion within that group.
VIII	If persons who are very divergent from one's own opinion or ability are perceived as different from oneself on attributes consistent with the divergence, the tendency to narrow the range of comparability becomes stronger.
IX	When there is a range of opinion or ability in a group, the relative strength of the three manifestations of pressures toward uniformity will be different for those who are close to the mode of the group than those who are from the mode. Specifically, those close to the mode of the group will have stronger tendencies to change the positions of others, relatively weaker tendencies to narrow the range of comparison and much weaker tendencies to change their position compared to those who are distant from the mode of the group.

Source: Festinger (1954).

The inquiry regarding how individuals compare themselves to one another originated in the seminal work of Leon Festinger and his theory of social comparison (1954). Built upon nine

hypotheses (see Table 2.1), his basic tenet was like Maslow's—humans have a drive to evaluate their opinions and abilities (Hypothesis I). When there is no test or objective physical measure to assess oneself, Festinger suggested that an individual must employ other people as standards for comparison (Hypothesis II). Hypotheses III, IV, and VIII explained the criterion people use to choose others with whom to compare. He described a universal drive upward that some suggest may result from a tendency in Western culture for individuals to not only evaluate themselves but continuously improve their abilities (Wood, 1989). In his similarity hypothesis (Hypothesis III) he suggested that people tended to compare themselves to others who were similar because comparing with those too divergent from oneself did not provide a reasonable measure of comparison. In Hypotheses V, VI, VII, and IX, Festinger discussed the consequences of social comparison. He described a general tendency toward assimilation based on the comparison group's importance, relevance, and attractiveness and the adverse psychological outcomes of not reaching uniformity.

Later research (Klein, 1997) further supported the power of social comparison information but challenged Festinger's hypothesis that an individual only uses social comparison in the absence of an objective measure. In a series of three experimental studies with undergraduate students, Klein (1997) found that even when objective information was available for self-evaluation, individuals relied heavily on their relative standing with others to assess their success. The human proclivity to engage in comparison was present even when other means of evaluation were available.

Psychologists investigating social comparison following Festinger's original theory provided more nuanced descriptions of how individuals judge themselves against others.

Wheeler (1966) explored the motivation of the individual to compare to someone of more extraordinary ability, which he labeled as *upward comparison.* He noted that upward comparison might be associated with "a highly achievement-oriented culture" (p. 27) and posited that an individual's motivation to achieve should be positively correlated with upward comparison. He observed a paradox that those with the greatest desire for feelings of success had the greatest tendency to make social comparisons which may then result in feelings of failure. Participants completed a fictitious personality test to evaluate the similarity hypothesis, the notion of upward comparison, and the relationship between motivation and social comparison. Researchers told participants they would use the personality test results to determine placement in a seminar-type course. They randomly assigned participants to either a high-motivation group or a low-motivation group. To evoke high motivation, researchers described the seminar as highly desirable, consisting of exciting discussions without homework, grades, or compulsory attendance. Conversely, in the low-motivation condition, researchers described the seminar as having excessive homework, strict grading, and mandatory attendance. Following the personality evaluation, participants viewed their scores and rank order of the scores of the other members of the testing group. When given the opportunity to see the score of any other group member they chose, participants in both groups most often preferred to look at a score most similar (higher or lower) to their own, thus supporting Festinger's similarity hypothesis. As expected, there was strong support for the notion of upward comparison. When given a choice to see the score of another participant, 87% selected to see the score of someone ranking higher than them rather than below them. To examine the relationship between motivation and upward comparison, the author compared the frequency

of upward comparison in the high-motivation condition to that of the low-motivation condition. Ninety-five percent of the participants in the high-motivation condition chose to see a better score than their own. In contrast, only 80% of the participants in the low-motivation condition made a similar choice. Together, these results support the hypothesis that individuals with the highest motivation to achieve success have the greatest tendency to make upward social comparisons which may result in feelings of failure or inferiority.

Wills (1981) offered a contrasting theory of *downward social comparison* in which individuals engage in social comparison by comparing themselves to others they deem to be less fortunate. He believed that when a person experiences frustration, they may compare themselves to someone worse off, increasing their subjective well-being. According to his theory, this phenomenon should occur more frequently when a person is experiencing a reduction in their physical or psychological well-being. Downward comparison can occur passively when a person engages in comparison with someone less fortunate or on an active basis by active derogation of another person. Wills (1981) provided extensive evidence from a diverse body of research, including studies of fear and affiliation, ego threat, and aggression that supported the basic principle of downward comparison. He noted that downward comparison was not a universal response to misfortune. Rather, evidence supported a positive correlation between downward comparison and an individual's perceived happiness and fortune. Wills ultimately concluded "people who are unhappy like to see others that are unhappy" (p. 268). Downward social comparisons may meet emotional needs by making an individual feel fortunate in relation to others, thereby raising self-esteem.

Social comparison is a complex psychological phenomenon with varied motivations and

consequences for an individual. Although early research supported that social comparison in a specific direction (upward or downward) led to a particular outcome—upward comparison led to negative feelings about oneself while downward comparison improved a person's self-evaluation—other scholars found that social comparison can produce positive or negative feelings independent of its direction (Buunk et al., 1990; Taylor & Lobel, 1989). Taylor and Lobel (1989) examined multiple studies of cancer patients. They discovered that those who had cancer reported positive outcomes from interactions with cancer patients who were doing better than themselves—a group the researchers label as *upward contacts*. Comparison to those more fortunate than them provided hope and improved well-being, while comparison to those worse off incited fear and uncertainty. This finding suggests that upward contacts may provide problem-solving needs for those experiencing distress by providing role models that encourage hope and inspiration. Buunk et al. (1990) found a similar variety in consequences of social comparison in a sample of cancer patients (N = 55) either recently diagnosed or experiencing a reoccurrence. When asked about how they felt as a result of upward and downward comparisons they made, 82% of participants made downward comparisons and felt positively, 59% made downward comparisons resulting in negative feelings, 40% made upward comparisons and felt badly, and 78% made upward comparisons and felt positively. The researchers replicated these results in a different context by examining social comparison in relation to marital satisfaction. Among a sample of married individuals (N = 632), both upward and downward social comparisons were reported with both positive and negative outcomes. These studies' findings demonstrated that there is not an intrinsic link between positive and negative affect and the direction of social comparison. An individual may experience improved

or deteriorated self-evaluation due to either upward or downward social comparison.

Morse and Gergen (1970) observed that an individual's perception of the person they chose as a target for comparison influenced the direction of the effect on their self-esteem. The researchers designed an experiment to expose undergraduate job applicants (*N* = 78) to stimulus persons referred to as Mr. Clean and Mr. Dirty (Morse & Gergen, 1970). Mr. Clean presented in a formal suit, was well-groomed, and appeared self-confident. Mr. Dirty's appearance was in sharp contrast to Mr. Clean's. He wore ripped pants and a smelly sweatshirt and was unfocused and disheveled in his actions. Participants rated the person with whom they had contact, and, in all cases, participants indicated that Mr. Clean was more handsome and less sloppy in appearance than Mr. Dirty. The researchers concluded that participants perceived Mr. Clean to be superior to them in some respects, including appearance and self-confidence, and Mr. Dirty to be inferior in the same attributes. Participants completed evaluations of self-esteem both before and after the respective experimental conditions. Variations in the stimulus person had a pronounced effect on self-esteem ratings across conditions. Those in the Mr. Clean group demonstrated diminished self-esteem, and those in the Mr. Dirty group reported increased self-esteem. The results indicated that a person's self-esteem may increase or decrease due to upward and downward social comparison.

The consequences of upward comparison may be more salient when the comparisons involve attributes and skills central to a person's self-definition. Lockwood and Kunda (1997) believed that individuals would be more inspired by someone who excelled at their intended profession than by someone successful at a different job. They investigated female undergraduates (*N* = 50) with career aspirations to be teachers or accountants. Participants

read a fictitious newspaper article describing either a teacher or accountant who recently received an award for outstanding career achievements. The article described the high-achieving teacher as meeting challenges with enthusiasm and having successfully motivated inner-city high school students. A quote from the teacher's employer identified them as "one of the most talented, creative, and innovative teachers" (p. 94). The high-achieving accountant was among the youngest ever to receive a partnership at their accounting firm and "one of the most extraordinarily talented and innovative individuals" with whom the supervisor had ever worked (p. 94). After reading the articles, participants completed questionnaires asking them to rate themselves on various traits that related positively and negatively to general career success. Additionally, participants rated how relevant the fictitious successful target in the news article was to them. Participants rated the target who was outstanding in their future profession more relevant to them than the other target. Further analysis revealed that the relevant target was more likely to inspire the participant. Of those exposed to the relevant target, 45% indicated that the target had inspired them. Only 15% of participants exposed to the irrelevant target indicated any inspiration. Individuals were much more likely to experience both positive and negative consequences of social comparison when comparing themselves with individuals who shared similar career aspirations.

In the second study in the report, the authors (Lockwood & Kunda, 1997) investigated the influence of highly successful role models. Undergraduate students (N = 65) enrolled in first-year and fourth-year accounting classes read a fictitious newspaper article describing a stellar fourth-year accounting student (Lockwood & Kunda, 1997). After reading the article, participants rated both the target and themselves on traits related to career success.

Participants provided substantially different accounts of their reactions to the highly successful target. First-year students highlighted their similarities with the successful target and stressed that they could learn from them, while fourth-year students explained why they could ascertain little about themselves from the target. Those more similar to the target, fourth-year students, experienced negative consequences of upward social comparison, while first-year students experienced positive results. The first-year students viewed the successful target as an inspiration, while the fourth-year students saw the target's success as something they could not achieve. This evidence supported the hypothesis that when a target's accomplishments seem more attainable, a person experiences inspiration and self-enhancement. Conversely, when the target's achievements seem unattainable, the person may experience self-deflation. The results of these studies indicated that when a person perceived a target as relevant, their impact depended on the perceived attainability of their success. Models of attainable success positively affected individuals engaging in upward social comparison, whereas models of unattainable success were threatening and deflating.

As social psychologists developed nuanced theories of social comparison in individuals' personal and professional lives, educational psychologists concurrently recognized the role of comparison in academic environments and studied its effects on students. Within education, scholars have identified a closely related trait of self-esteem, academic self-concept, which represents how students perceive their academic ability (Basith et al., 2021). Davis (1966) was among the first scholars who emphasized the importance of academic self-concept in the success of college students and warned that the most academically advanced environments might not yield the most academically advanced students. Using data collected by the National

Opinion Research Center as part of a more extensive study investigating over 35,000 students receiving a bachelor's degree at American institutions, he discovered that indicators of how male students compared to their classmates were more correlated with their career aspirations than their actual intellectual ability. His findings provoked a line of inquiry in which scholars have investigated social comparison in academic environments. They found that when surrounded by other high-achieving students, an individual may engage in unfavorable upward social comparison with detrimental educational outcomes—a phenomenon they labeled the big-fish-little-pond effect.

Replicating earlier work (Soares & Soares, 1969; Trowbridge, 1972), Marsh and Parker (1984) investigated the academic self-concept of students in low and high socio-economic status (SES) schools. Participants were sixth-grade students (*N* = 305) enrolled in five schools near Sydney, Australia, representing the area's three highest and lowest SES schools. Students completed a reading achievement test and a self-description questionnaire to measure academic self-concept. Researchers obtained IQ scores from school records, and teachers rated each student in terms of self-concept and academic ability. Paradoxically, students in high SES schools reported high academic achievement and low academic self-concept, and students in low SES schools reported lower academic achievement and high academic self-concept. The authors proposed that "the question becomes whether it is better for a child to have a higher academic self-concept and a somewhat lower academic achievement, or a lower academic self-concept and somewhat higher achievement. That is, is it better to be relatively large fish in a small pond even if you don't learn to swim as well?" (p. 229). In the context of academic self-concept, the big-fish-little-pond effect has substantial implications for social comparison.

According to those researching the big-fish-little-pond effect, highly competitive educational environments may heighten social comparison and its consequences.

Recently, scholars have investigated the big-fish-little-pond-effect in advanced art students to determine if, like academic self-concept, social comparison affects a student's artistic self-concept (Burleson et al., 2005). Adolescents (*N* = 141) enrolled in a highly selective advanced art summer program completed pre- and post-program questionnaires to measure social comparison, artistic self-concept, and professional aspirations. Additionally, after the program's first week, students had the option to provide a written diary account of a time that they compared themselves to another student. Researchers categorized social comparisons as *inferiority upward comparisons*, those in which the participant experienced negative feelings of inferiority when compared to others, and *inspiration upward social comparisons*, those that inspired the participant to improve through comparison to another student. Data analysis revealed that increased inferiority upward comparison during the summer program was associated with negative changes in students' artistic self-concept. Positive changes in students' professional aspirations were associated with increased inspiration social comparisons but negatively correlated with inferiority social comparisons. The effects of social comparison in this context were directly related to how the students interpreted their comparison—as inspiration or inferiority. The results confirmed that students enrolled in an advanced art program engaged in upward social comparison that affected their artistic self-concept similarly to students in high-performing academic programs.

In summary, the robust line of inquiry in social comparison provides evidence that humans instinctively engage in comparison with others. They may measure themselves against

others who are better or worse off than themselves resulting in both positive and negative psychological outcomes. Because individuals tend to choose comparison targets that are similar to themselves, the act of comparison may be salient in highly competitive environments where others share their aspirations. While some individuals may find inspiration by observing others who are more successful than themselves or feel better about their situation by measuring themselves against others they perceive as worse off, most individuals experience adverse effects of comparison that result from upward comparisons to individuals they perceive as better than themselves. These comparisons may affect a person's general self-esteem, efficacy, and self-concept within specific domains, including their academic and professional lives.

2.1.1 Social Comparison in Online Contexts

In a 2016 review of the literature on Facebook use and its relationships with social comparison, envy, and depression, Appel et al. concluded that social comparison is ubiquitous on social media sites and that available evidence supported the notion that Facebook use encouraged "unfavorable social comparisons" (p. 46). They noted that social networking sites (SNSs) provide many opportunities to compare with others and may present a biased view of social reality. Researchers investigating user authenticity on SNSs have suggested that online environments make positive forms of self-presentation more likely than negative forms (Reinecke & Trepte, 2014). To test this hypothesis, participants recruited on Facebook and StudiVZ, the two most popular SNSs in Germany, completed two waves of online surveys. The surveys included scales of positive and negative affect, satisfaction with life, and authenticity. After matching pairs of surveys from the two waves, researchers used 381 sets for analysis. Data indicated that over time, authentic self-presentation was associated with increased well-

being; however, this trend was only true for users with relatively high well-being. SNS users with low levels of well-being were not as likely to present authentically online. Overall, the results support their hypothesis that a positivity bias characterizes the environment of SNSs.

Table 2.2

Selected Rules of Facebook Friendship

Rule #	Description
1	Project yourself in a manner others would want to be associated with.
2	Don't post anything that will hurt a friend's image.
3	Don't post anything that will hurt a friend's career.
4	Don't post anything that will hurt a friend's relationships.
5	Delete or block anyone who posts something that compromises your image.
6	Monitor your photos to make sure they are flattering.
7	Always present yourself positively but honestly on Facebook.
8	Do not post information on Facebook that could be used against you

Source: Bryant & Marmo (2012).

Other scholars (Bryant & Marmo, 2012) identified friendship rules that encourage positive communication on Facebook. In a series of two studies, Bryant and Marmo (2012) first conducted focus groups with college students (N = 44) at a large university in the southwestern United States. Participants in the focus groups identified 36 rules that govern social interactions on Facebook, many of which demonstrate the expectation for positive communication (see Table 2.2). Next, the researchers presented the rules that emerged from the qualitative inquiry to college students (N = 593) who indicated the relative importance of each rule using a Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). "I should present myself positively but honestly" emerged as one of the participants' most agreed-upon rules (M = 5.48). Additional analyses revealed that the rules applied across varied types of relationships, including close,

casual, and acquaintance friendships. These unwritten rules that govern a user's behavior on Facebook provide additional support for the positivity bias of SNSs.

In the seminal study investigating social comparison on SNSs, Haferkamp and Krämer (2011) conducted two online experiments. Participants viewed profiles of physically attractive or unattractive persons and profiles with high or low occupational attainment. To create the user profiles, researchers selected photographs from the SNSs hotornot.com, a website on which users upload pictures of themselves to be rated by others in terms of physical attractiveness.[1] Researchers recruited participants through an email to randomly selected users of Facebook and StudiVZ (a popular German SNS) for each phase of the study. To choose the photographs for the study, the researchers conducted a pre-test in which 25 males and 25 females rated each photo on a 10-point Likert-type scale. They then used the four males and females rated as most attractive and the four rated as most unattractive to make fake profiles. Following the same procedure, they also created four successful/unsuccessful target profiles and four successful/unsuccessful targets in terms of occupational attainment. The selected successful vitae showed careers of a doctor, a lawyer, a journalist, and a public relations officer. The less successful vitae only referred to the college degree of the user. Two groups of participants viewed either the user profiles designed to contrast physical attractiveness (N = 91, M = 22.53 years; SD = 2.75) or occupational attainment (N = 103, M = 23.11 years; SD = 3.44). Dependent variables for the experiments included measures of participants' emotional state, body image, and career satisfaction. After viewing profiles with attractive photos, participants

[1] The website www.hotornot.com was bought in 2008 and then again in 2012. The site is currently rebranded as Chat & Date, https://chatdate.app/, a dating app and no longer functions in the same way.

experienced fewer positive emotions and expressed a higher discrepancy between their personal physical build and an ideal build. The results of the occupational attainment manipulation did not yield statistically significant differences to support the hypothesis that looking at users with successful careers would invoke negative emotions; however, a gender main effect emerged for career satisfaction after viewing profiles. Males who looked at profiles with successful careers were more likely to have a more negative emotional state and be less satisfied with their jobs than female participants. The findings of this study provided evidence that some users may experience negative emotional consequences because of engaging in social comparison on SNSs.

Given the evidence that individuals compare to one another on SNSs, scholars have sought to explore the variables that lead to online social comparison. Lee (2014) investigated how American undergraduate students (N = 199) measured themselves against others on Facebook. Participants completed measures of Facebook use intensity, social comparison, self-esteem, self-consciousness, self-uncertainty, and expectations of others' responses. Results indicated that a person's Facebook use intensity significantly predicted online social comparison frequency. Additionally, there were positive correlations between social comparison frequency on Facebook and both anxiety (r = .32) and depression (r = .31).

Vogel et al. (2014) found relationships between self-esteem and Facebook use and discovered that the direction of comparison moderated the effects on self-esteem. Undergraduate students (N = 145) completed measurements of Facebook use, upward and downward social comparison, and self-esteem. Participants engaged in upward and downward comparisons on Facebook but reported significantly more upward than downward social

comparisons. Path analysis results indicated that Facebook use significantly predicted lower self-esteem and upward and downward comparison. Notably, upward comparison on Facebook predicted lower self-esteem, while downward comparison did not.

In the second investigation in their study, Vogel et al. (2014) explored social comparison, self-esteem, and Facebook use through experimental methods. Researchers created four fake Facebook profiles with manipulated content to convey upward or downward status. Profiles included personal content ostensibly posted by the user sharing personal attributes and social content posted by the user's imagined social network. The profiles portrayed the user engaging in healthy (upward) or unhealthy (downward) behaviors, including pictures of a healthy or unhealthy dinner the person had made, to manipulate the profile to convey upward and downward comparative information. Researchers included three fake status updates designed to contrast the perceived activity level of the person making the post: (a) a personal fitness record (upward-healthy) or an online gaming achievement (downward-unhealthy), (b) a scenic photo from a family vacation that depicted active behavior such as hiking (upward-healthy) or inactive behavior such as relaxing on the beach (downward-unhealthy), and (c) a post about recent volunteer work that consisted of physical labor such as building houses (upward-healthy) or reading to children (downward-unhealthy). Additionally, to manipulate social network content, the target profile either had high activity indicated by many likes and comments or low activity with few interactions from other users. The profiles also contained four additional filler posts designed to enhance realism. Investigators informed the participants that they were "interested in people's perceptions of others in the context of social media" (Vogel et al., 2014, p. 212), and each participant viewed one of four fictitious profiles that purportedly belonged to

another student of their same sex at their university for three minutes. Immediately after viewing the profiles, participants rated their self-esteem and made trait-based evaluations of the person portrayed in the fake profile and themselves. They judged the extent to which they and the target person were attractive, healthy, fit, likable, and popular. Results showed that participants had lower self-esteem and poorer self-evaluations after exposure to a target with high social network activity. Additionally, participants had poorer self-evaluations after exposure to an upward-healthy target compared to the downward-unhealthy target. Overall, viewing social media profiles with positive content for three minutes was associated with lower self-esteem and self-evaluations.

The positivity bias in online self-presentation may exacerbate the prevalence of upward social comparison on Facebook. Chou and Edge (2012) tested the hypothesis that those who are more engaged with Facebook and those who include more strangers on Facebook are more likely to perceive others as happier and having better lives than themselves and are less likely to agree that life is fair. Undergraduate students from a large public university in the western United States (N = 425) completed a survey that included three questions: (a) others have a better life, (b) others are happier, and (c) life is fair. Participants reported years of using Facebook and hours spent on Facebook each week. Results indicated that frequent Facebook users perceived that others were happier than themselves and tended to disagree with the statement that life is fair. This perception is more likely to occur when people make inferences about people they do not know well because the number of strangers included on Facebook was associated with stronger beliefs that others had better lives than themselves. The results support the argument that using Facebook affects the perceptions of others. Additionally,

looking at happy pictures of others on Facebook results in upward social comparison.

Over the past decade, there has been an increase in research investigating how engagement with SNSs might influence how people evaluate their lives—that is, their subjective well-being. While early cross-sectional studies provided mixed results indicating both positive and negative effects of engagement on SNSs, as investigations became more nuanced and employed longitudinal and experimental designs, patterns of negative correlations between SNS engagement and subjective well-being emerged (Verduyn et al., 2017). Kross et al. (2013) were the first to investigate the effects of Facebook use on well-being over time. In contrast to the cross-sectional approach used in most previous research, Kross and his colleagues used experience-sampling by sending an online survey link to 82 Facebook users five times per day for 14 days. In Phase 1 of the study, participants completed questionnaires to measure satisfaction with life, depression, self-esteem, and perceptions of Facebook support. In addition to the psychometric tests, participants indicated their motivation to use Facebook from a series of choices such as “to keep in touch with friends” and “to share good things with friends.” In Phase 2, participants received text messages five times per day with a link to an online survey asking them to answer five questions about their current feelings, sense of worry, loneliness, and Facebook use. In Phase 3, participants returned to the research laboratory to complete a set of questionnaires measuring satisfaction with life and loneliness. Results indicated that Facebook use predicted declines in how people felt moment to moment and how satisfied they were with their lives. The more participants used Facebook, the more their satisfaction with life declined over time. Additionally, neither affect nor worry predicted Facebook use, and Facebook use predicted significant declines in well-being when controlling for loneliness.

Together, these results provide evidence of a negative relationship between Facebook use and well-being.

More recently, scholars have distinguished how users interact with SNSs and noted varied outcomes based on the type of use (Verduyn et al., 2017). Scholars have classified engagement with SNSs into two categories—active and passive usage. Active usage refers to activities in which users engage directly with others, such as posting a status update or sharing links. Passive use refers to "monitoring of other people's lives without engaging in direct exchanges with others", such as scrolling through news feeds or looking at other users' profiles, pictures, and status updates (Verduyn et al., 2017, p. 281). Although most measures of general Facebook use do not distinguish between active and passive use, scholars have noted that passive use of SNSs is more frequent than active use (Pempek et al., 2009; Verduyn et al., 2015), and passive use of SNSs more often elicits social comparison (Verduyn et al., 2017).

Researchers have proposed a variety of possible psychological consequences of both passive and active SNS engagement. Although substantial evidence supports a positive relationship between SNS use and psychological consequences, the cross-sectional design of most studies restricts causality implications (Appel et al., 2016). It is plausible that psychological symptoms may result from SNS use or that those experiencing psychological symptoms may be more prone to use SNSs.

Vogel et al. (2014) found that undergraduates who used Facebook (with no distinction between passive and active use) most frequently tended to have lower self-esteem. In Phase 1 of their study, they found that within a sample of 145 undergraduate students, Facebook use was negatively correlated with self-esteem and positively correlated with the frequency of

social comparisons. Notably, participants reported significantly more upward social comparison than downward comparison. In the second phase, using an experimental design, undergraduates (*N* = 128) viewed fictional Facebook profiles designed to evoke upward social comparison (passive use). As expected, upward social comparison negatively influenced both self-esteem and self-evaluations. Together, the findings provide strong evidence that upward social comparison is an underlying factor contributing to the relationship between SNS use and well-being.

Multiple scholars have investigated associations between social media use and depression. Lin et al. (2016) surveyed a sample of young adults aged 19 to 32 (*N* = 1,787) and measured symptoms of depression and social media use on 11 widely used social media platforms, including Facebook, Twitter, and Instagram. Researchers placed participants into three categories based on scores from the Patient-Reported Outcomes Measurement Information-System depression scale developed by the National Institute of Health. The low category included those experiencing no indicators of depression (*n* = 731). Approximately one-fourth of the sample ranked in the high category (*n* = 512), and the remaining comprised the medium category (*n* = 544). Participants self-reported total minutes per day using social media, and their estimated number of site visits per day provided a measurement for social media engagement. Participants in the highest quartile of total time per day on social media had significantly greater odds of having depression compared to those in the lowest quartile. Similarly, compared to those in the lowest quartile, participants in the highest quartiles of site visits per week reported more symptoms of depression.

University students in Korea (*N* = 480) reported similar relationships between Facebook

use and depression (Park, 2022). Park measured Facebook Intensity using the Multidimensional Facebook Intensity Scale (Orosz et al., 2016) and explored its relationships with participants' reported measures of their depressive symptoms and fear-of-missing-out (FOMO). Facebook intensity was significantly associated with symptoms of depression and FOMO.

Steers et al. (2014) explored the link between Facebook use and depression through the mediating factor of social comparison. In their report on a series of two studies, they determined that users felt more depressed on days that they logged on more and spent more time on Facebook because of the adverse effects of social comparison. In the first study, undergraduate students (*N* = 180) completed an online survey comprised of a social comparison scale, depressive symptom scale, and self-reports of their time spent daily on Facebook. Time spent on Facebook was positively related to depressive symptoms and social comparison for both males and females. The second study was a 14-day interval-contingent diary study on Facebook use. Undergraduate students from a large southwestern university (*N* = 154) completed 2,035 diary entries over 14 days, answering open-ended questions about time on Facebook, number of logins, social comparison, and depressive symptoms. Time spent on Facebook was positively related to upward and nondirectional social comparisons, suggesting that participants experienced more frequent upward and nondirectional social comparisons on days they spent more time on Facebook. Social comparisons explained approximately 14% of the variability in daily depressive symptoms. Overall, the results of the two studies revealed that spending time on Facebook was positively related to social comparison, which in turn was associated with increased depressive symptoms.

Researchers in Germany (Brandenberg et al., 2019) extended the study of the psychological effects of SNS engagement with professional SNSs. XING, an SNS similar to the professional site LinkedIn, is the most popular career-oriented SNS in German-speaking countries, with over 20 million members (XING, 2023). Brandenberg et al. (2019) investigated Facebook and XING activity, social comparison orientation (SCO), and depressive tendencies among active XING users. Participants recruited via flyers posted on a European university campus (N = 145, M = 33.87 years old) completed an online survey that measured activity on the two SNSs, depressive symptoms, and SCO. Results on the German version of the Iowa-Netherlands Comparison Orientation measure (Gibbons & Buunk, 1999) yielded a total score and two sub-scores that reflect social comparison based on abilities and social comparison based on opinion. Facebook activity was positively correlated with all three SCO scores, while XING activity correlated only with SCO ability scores. These results suggest that in the context of a professional SNS, users engage in social comparison with the abilities of other users, but on Facebook, users engage in social comparison of both opinions and abilities. There were positive correlations between both Facebook activity and XING activity and depressive symptoms. However, only the relationship between XING and depression was significant (r = .251, p < .01). These results confirm previous findings that Facebook use correlated with social comparison and depressive symptoms. In this instance, the correlation was stronger in the context of an individual's professional life and engagement on a professional SNS.

Multiple researchers have investigated online social comparison and its effect on envy. Lim and Yang (2015) surveyed South Korean university students (N = 446) who were users of the most popular SNSs in Korea and found strong relationships between social media use, social

comparison, envy, shame, and burnout. Path analysis revealed that negative upward comparison led to a reduced self-image, which triggered users' envy and shame. Furthermore, as social comparison increased, burnout increased.

Other scholars exploring envy resulting from online social comparison have identified various psychological outcomes due to the type of envy a user experiences (Latif et al., 2021). Benign envy is a positive emotion that motivates individuals to engage in self-improvement when observing someone they perceive as more positive than themselves. Conversely, malicious envy results when an individual experiences negative feelings such as reduced self-worth or shame from upward comparison. In a sample of Pakistani university students (N = 513), scholars (Latif et al., 2021) confirmed that SNSs users' social comparison was positively associated with both benign (r = .32) and malicious envy (r = .15). Benign envy led to behavioral intentions of self-improvement, and malicious envy resulted in increased negative gossiping about SNS friends.

Despite the substantial body of literature investigating Facebook, online social comparison, and its psychological consequences, there has been little research comparing online and offline experiences. Faranda and Roberts (2019) surveyed Facebook users between 18–25 years old (N = 167) to compare the effects of offline social comparison to comparison on Facebook. Participants completed an assessment of offline social comparison and direction, online social comparison and direction, and Facebook use intensity and depressive symptoms. In contrast to previously cited studies, there were no significant correlations between Facebook intensity and depressive symptoms. However, there was a significant correlation between offline social comparison and depression. It is possible that social comparison on Facebook may

simply reflect offline tendencies.

In a qualitative inquiry to explore the negative psychological and relational experiences of Facebook users, Fox and Moreland (2015) discovered that comparison to other users "triggered jealousy, anxiety, and other negative emotions" (p. 168). Researchers engaged 44 students at a large midwestern university in semi-structured focus groups to explore their experiences using Facebook. Emergent themes in the data included the frequency of online social comparison and the jealousy that resulted because of comparison. Participants noted that when they first joined the SNS in their adolescent years, their number of Facebook friends was an initial form of social comparison. They described engaging in competition with their peers and perceiving those with higher numbers of Facebook friends as having more social capital. One participant described their upward social comparison experience stating, “I feel like it consumes you . . . to the point that you can’t live your normal life because you see everyone else’s . . . I think it makes you think your life is not as fun or exciting or interesting than other people’s” (p. 172). Another participant noted that Facebook users often presented overly positive images of themselves through their posts, which encouraged constant comparison to other people. Social comparison was especially salient in romantic relationships. Participants noted comparing themselves to partners’ exes and using Facebook to investigate the lives of a romantic partner or interest, which often resulted in feelings of mistrust, uncertainty, or jealousy. Fox and Moreland (2015) observed that over the course of the focus groups, there was inconsistency in the reporting of negative experiences. Some participants suggested that other people caused or experienced negative events on Facebook but did not acknowledge that they personally had negative experiences. They claimed Facebook was insignificant in their lives

but later revealed it had a substantial emotional impact on them. Some defended their negative actions on Facebook as uncontrollable while assigning personality flaws to others due to their negative actions. Considering these findings, it is possible that quantitative inquiry alone may not capture the depth and nuance of an individual's experience on Facebook. The researchers suggested that qualitative approaches "may help mitigate bias in the way users describe their experiences with social media" (p. 174).

2.1.2 Measuring Facebook Use

Investigations into the effects of Facebook most commonly use self-reported metrics of time spent on Facebook and the number of times a user accesses the site over a given period. To gain a more nuanced understanding of how individuals use Facebook, Ellison et al. (2007) developed the Facebook Intensity Scale (FBI) to incorporate individuals' emotional connectedness to the site and its integration into their daily life. The scale includes two questions to measure participants' number of friends and time spent on Facebook. It also poses a series of Likert-type attitudinal questions designed to measure the extent to which a participant is emotionally connected to Facebook. The scale has shown good reliability in multiple studies, with Cronbach's alphas ranging from .83 to .89 (Aamir, 2020). In later studies, Ellison et al. (2011) added a new variable, actual friends, to the scale to differentiate how users perceived their social connections on Facebook. Findings demonstrated that Facebook friends that users do not consider actual friends did not provide social capital benefits to users. Given that total friends and actual friends yielded different effects in the analysis, the researchers suggested the addition of this measure in future investigations.

Orosz et al. (2016) sought to expand on the FBI to explore different dimensions involved

in Facebook intensity. They created the Multidimensional Facebook Intensity Scale (MFIS) and discussed its development in a synthesis of four studies. They identified four main facets of Facebook use after reviewing previous literature: (a) persistence to use Facebook, (b) use to relieve boredom, (c) Facebook overuse, and (d) self-expression on Facebook. In the initial qualitative study, a focus group of 18 university students with Facebook accounts suggested 20 items to measure the intensity of Facebook use. Participants (*N* = 512) completed a survey containing the 20 items. Following statistical analysis, researchers removed three items because of lack of clarity and four because of unclear factor belongingness. In the second study, 566 participants aged 18–67 completed the survey produced in the first study. Confirmatory factor analysis revealed a four-factor model of Facebook intensity with the dimensions of persistence, boredom, overuse, and self-expression to be the best fit. A third study assessed the convergent validity of the MFIS in a population of 531 adults representing both college students and working professionals. They found that the MFIS correlated with other measures of Facebook use and accurately discriminated between types of use. A fourth study compared the results of the MFIS to Ellison's FBI. Based on the four studies, the researchers concluded that people differ in how they use Facebook. The MFBI provides a metric to evaluate the relationships between different kinds of Facebook use and their outcomes.

The ways in which users interact with Facebook are multifaceted and complex. Beyond simple measures of self-reported estimated time spent on Facebook, the FBI is the most widely reported measure in the literature. The development of the MFIS to further explore relationships in the different ways individuals use Facebook provided a more nuanced measurement; however, researchers have yet to use it in investigations widely. Despite the

common use of self-reported measures, some have questioned the accuracy of using such measures (Ernala et al., 2020; Junco, 2013). Junco (2013) investigated the accuracy of self-reported SNS use among college students. A total of 110 participants completed surveys to self-report SNSs use. Researchers subsequently asked them to install software on their computers to monitor activity for 30 days. Forty-five participants agreed, installed the monitoring software, and completed the study. Reports from the monitoring software included actual Facebook, Twitter, email, and search engine use. There were moderate positive correlations between self-reported and actual time spent on Facebook (r = .587), Twitter (r = .866), and email (r = .628). Notably, in all contexts, self-reported time was significantly higher than actual time. This discrepancy in time reported could be an inaccuracy, a result of time accessing SNSs via other devices without monitoring software installed, or inactive time spent viewing SNSs not captured by the monitoring software. Despite the variation, the strong positive correlations between self-reported time and actual time suggests that the self-report measure does capture a facet of Facebook use.

A research team including members within the industry with access to server data compared self-reported Facebook use to logged data from the Facebook server (Ernala et al., 2020). Participants from 15 countries (N = 49,934) recruited via messages posted to their Facebook news feeds completed self-reports of daily time spent on Facebook and the number of times per day they accessed the site. Responses included open-ended, ordinal, and Likert-type ratings ranging from not at all to a great deal. Researchers compared participants' self-reported responses to actual server data of Facebook use over a 30-day period preceding the self-report. Generally, respondents over-reported time spent on Facebook and under-reported

frequency of Facebook use. Correlations between actual and self-reported Facebook use were small to medium. They ranged from .23 to .42. Closed-ended questions generally had fewer errors than open-ended questions, and participants indicated that closed-ended questions were easier to answer. Teens and young adults made more errors in reporting than other age groups. The authors noted that for most researchers, self-reported measures remain the most useful and sometimes the only method available to measure SNS use. Access to actual data is limited to researchers within the SNS industry and requires data logs from internal servers. Although time-tracking applications are an alternative, they only capture time spent on a single device, may not be universally available, may be difficult to use, and may turn away potential participants who have privacy concerns. It is essential that researchers consider the weaknesses of self-reported Facebook use when designing research methods.

Given the challenges with self-reported measures, Ernala and colleagues (2020) recommended that researchers use multiple-choice rather than open-ended questions in self-report measures. Additionally, when researchers collect time spent on Facebook via a self-report, they recommended the following wording which most accurately represented actual Facebook use in their study:

> In the past week, on average, approximately how much time PER DAY have you spent actively using Facebook?
>
> - Less than 10 minutes per day
> - 10–30 minutes per day
> - 31–60 minutes per day
> - 1–2 hours per day
> - 2–3 hours per day
> - More than 3 hours per day

Finally, they cautioned that because self-reports are imprecise, they are most appropriate in research that interprets people's self-reported time as an estimate of where they fall in relation to other respondents rather than a distinct value. As scholars continue to investigate the implications and outcomes of social media use, strategies such as triangulating self-reported data with actual data and using mixed method models to help explain quantitative data with qualitative inquiry may be useful.

Some scholars have observed that music educators use Facebook for professional development and connection to the music educator community (Rickels & Brewer, 2017; Wayman, 2016). In an analysis of a professional choral director Facebook Group, Wayman (2016) found that posts pertaining to the teaching and administration of choral programs made up 85% of the group activity. Users posted administrative questions and comments concerning classroom management, team building, budgeting, and uniforms. The most common curricular topic was repertoire, often through posts requesting music suggestions for particular types of choral ensembles. The remaining 15% of posts were comprised of inspirational teacher comments, information sharing, and humor. Similarly, Rickels and Brewer investigated a band director's Facebook group and found that users perceived that participation in the online community positively contributed to their professional growth. Participants in the study reported that they used the band director's Facebook group for enjoyment, social interaction, and professional benefits. In both studies, the authors observed that music educators actively engage in Facebook use in a professional context.

Social comparison is present in both the daily personal and professional lives of individuals. It is reasonable to assume that music educators also experience the same upward

and downward comparison in their lives as teachers and musicians. Furthermore, given the expansive literature supporting the notion that increased social media use is related to increased social comparison, it is likely that music educators who are active on social media may experience increased occurrences of social comparison. In some cases, comparing to others results in a person being motivated to excel, but more often, the result may be the opposite. A music educator may view a colleague's post about their accomplishments or an award-winning concert and feel they are not as competent, intelligent, or capable as that person. In this example, the consequences of social comparison may include lowered self-efficacy and less motivation to excel in both personal and professional tasks. In some cases, social comparison may manifest in negative psychological consequences such as anxiety and depressive symptoms. Despite being successful, music educators may begin to feel incapable and fraudulent when comparing themselves to peers in the profession.

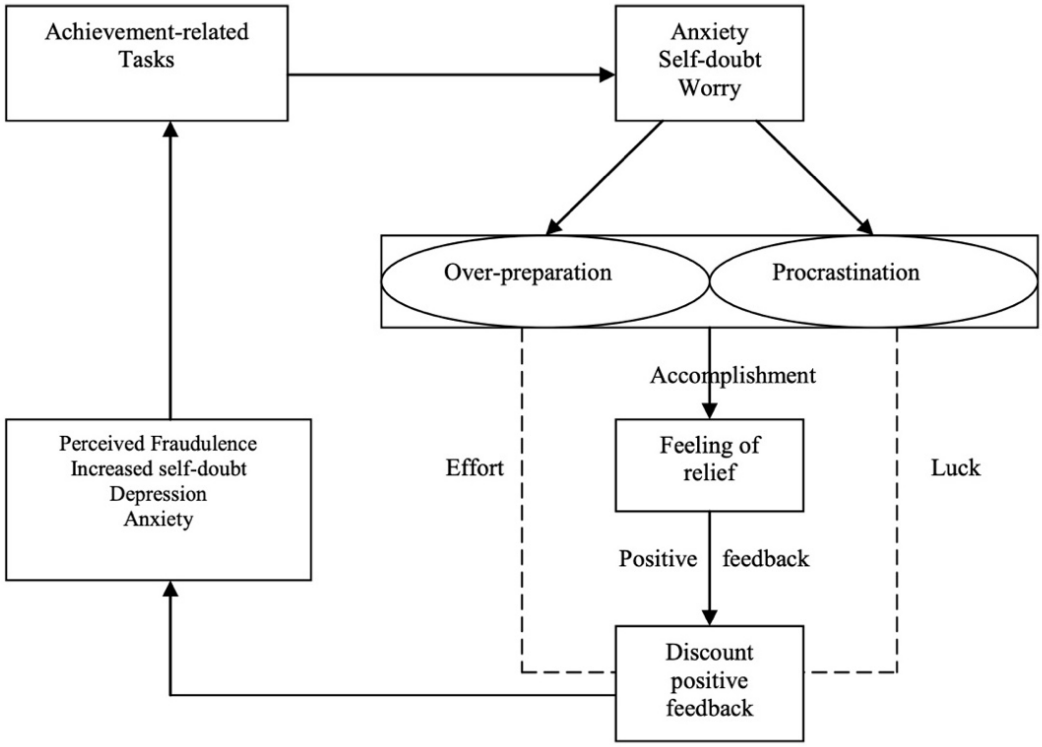
2.2 Impostor Phenomenon

Psychologists Pauline Clance and Suzanne Imes first observed what they labeled impostor phenomenon (IP) in a group of high-achieving women (Clance & Imes, 1978). Despite earned degrees, recognition, high achievement on standardized tests, and praise from colleagues and respected authorities, these women did not experience an internal feeling of success. They attributed success to luck, to errors in evaluations, or to other people overestimating their abilities. Those experiencing IP felt that they were phonies and frequently reported symptoms of anxiety, lack of self-confidence, and frustration with themselves. Others may view someone suffering from IP as bright and gifted, yet the impostor remains convinced that they are "mediocre, unqualified, incompetent, even stupid" (Harvey & Katz, 1984, p. 3).

Harvey and Katz (1984) identified three signs of victims of IP. First, they have a sense of having fooled others into overestimating their ability. Second, they attribute their success to a factor other than their intelligence or ability. Finally, they fear others will expose them as a fraud. Ultimately, IP may manifest in the way a person acts, pushing one to behaviors such as overworking, constantly worrying about performance, being unable to accept praise, carefully orchestrating their self-presentation, or suppressing their personality.

Figure 2.1

The Impostor Cycle



Source: Saklulki & J. Alexander (2011), p. 75.

Clance (1985) described the recurring pattern of events that a victim of IP experiences as the impostor cycle (see Figure 2.1). Faced with an achievement-related task, the impostor experiences anxiety, self-doubt, and worry. To combat these feelings, they might engage in

over-preparation by spending excessive time and effort on the task, or they might avoid the task through procrastination. Upon successful completion of the task, the impostor experiences a feeling of relief accompanied by affirmation and positive feedback from others. Feelings of fraudulence cause the impostor to then discount this praise, attributing their success to the effort they exerted or to luck if they engaged in procrastination. The resulting feelings may increase self-doubt and lead to more anxiety or depression. Because the impostor experienced success, when faced with a new challenging task, they believe that the only path to achievement is through the same anxiety, self-doubt, increased effort, or dependence on luck. Thus, they enter the impostor cycle. Although the cycle results in success, it is accompanied by negative psychological symptoms that may be a detriment to the impostor.

Scholars have identified multiple factors that might contribute to the development of IP. When examining the early family life of the women in the original group they observed, Clance and Imes (1978) noticed that impostors generally fell into two categories. In one group, women were members of a family that labeled them as more sensitive and socially adept than a sibling whose family members considered to be the more intelligent child. As children, these women felt they could never prove that they were as bright as their siblings, no matter what they accomplished. Working to prove their intelligence, they typically excelled in school, receiving high grades and recognition from teachers. Despite their success, the family continued to recognize their sibling as the more intelligent one. Thus, they began to doubt their abilities and attributed their success to external factors. A second group believed they were superior in appearance, talent, and intellect as a child. They grew up hearing stories of how they were an exceptional infant and toddler and received indiscriminate praise from family members. As they

grew older and discovered that they struggled to achieve their goals, they began to doubt their abilities. Clance and Imes (1978) noted that, to some degree, the stereotype of women being less capable than their male counterpoints influenced doubt and the development of IP.

2.2.1 Measuring the Impostor Phenomenon

Since identifying IP through clinical observations and interviews, multiple scholars have developed scales to measure its symptoms. Harvey (1981) created the first instrument, the Harvey Impostor Scale (HIPS), a 14-item self-reported scale. Subsequently, Clance (1985) developed the Clance Impostor Phenomenon Scale (CIPS) to better account for clinically observed attributes not accounted for in the Harvey scale. Other instruments have included the Perceived Fraudulence Scale (PFS; Kolligian & Sternberg, 1991) and the Leary Impostor Scale (LIS; Leary et al., 2000).

The Harvey Impostor Scale (Harvey, 1981) was the first instrument designed to measure IP. Based on his previous research and the observations of Clance and Imes, Harvey created an initial list of 21 items and validated it using a sample of university graduate students (N = 74). The items were in the form of declarative statements such as, “In general, people tend to believe I am more competent than I really am” (Harvey & Katz, 1984, p. 111), which participants rated from *not at all true* to *very true*. Harvey rejected seven items, leaving 14 items in the scale. The instrument was cross-validated with a sample of 72 undergraduate students who completed the final 14 items. Using results from the two samples, Harvey estimated the internal reliability to lie between .73 and .85.

To test the assumptions made in the original conceptualization of IP (Clance & Imes, 1978) that high achievement is a pre-condition of IP and that high achievers would attribute

their success to interpersonal factors, Harvey (1981) divided undergraduate group responses into those enrolled in the honors program (n = 36) and those enrolled in a typical course of study (n = 36). He assumed that those in the honors program had a history of high achievement and would therefore report higher levels of IP than their counterparts. The IP scores for the honors students were significantly higher ($p < .05$) than those of the other group, which supports the assumption that IP is more prevalent in high-achieving groups. To further explore how high achievers attribute success to interpersonal factors, Harvey divided the honors students into those scoring above and below the median IP score to form low and high IP groups. After reading a series of hypothetical situations related to their collegiate life and academic experiences, participants reported attributions for their success. Researchers calculated scores for attribution to ability, effort, and interpersonal skills. Ability and effort attribution were high for all students in the sample; however, the mean score for attributing success to interpersonal assets was significantly higher in the high IP group. This finding supports the notion that those experiencing high IP are more likely to attribute their success to interpersonal skills. Rather than believing they were successful because of intellect or ability, they think they have tricked others into believing they are competent through their charm, personality, or wit.

Chrisman et al. (1995) noted that subsequent investigations using the HIPS found unacceptable reliability (α = .34, Edwards et al., 1987; α = .64, Kolligian & Sternberg, 1991) and inadequate discrimination between impostors and non-impostors (Holmes et al., 1993). Furthermore, some investigators failed to find significant relationships in areas where they expected them to appear. These observations led to the development of the Clance Impostor

Scale (CIPS; Clance, 1985). The CIPS presents 20 items that respondents rate on a 5-point, Likert-type scale ranging from *not at all true* to *very true.* The CIPS built on the attributes measured in the HIPS by incorporating fear of evaluation, fear of not being able to repeat success, and fear of being less capable of others. To minimize social desirability effects, the authors worded items on the CIPS in a manner that acknowledged the success of the respondent. Sample items include: “When people praise me for something I’ve accomplished, I’m afraid I won’t be able to live up to their expectations of me in the future” and “I often compare my ability to those around me and think they may be more intelligent than I am.” The CIPS has proven to be a reliable and valid instrument in multiple studies, with Cronbach’s alpha values ranging from .84 to .96 (see Chrisman et al., 1995). Additionally, Holmes et al. (1993) found the CIPS was a more sensitive instrument for measuring IP.

Kolligian and Sternberg (1991) preferred the term *perceived fraudulence* over the term impostor phenomenon as it “more accurately and precisely captures the technical meaning of the term” (p. 308). They developed the Perceived Fraudulence Scale (PFS) to measure the construct. In a trial study, the authors evaluated 67 items believed to measure perceived fraudulence with 60 undergraduate students. From these responses, they retained 51 items. Next, 50 undergraduate students completed the PFS along with the HIPS, personality inventories measuring achievement pressure, depression, self-esteem, self-monitoring, social anxiety, and daydreaming styles. Participants also viewed a series of six short scenarios with instructions to "imagine themselves as the main character in each passage" and "list all thoughts and feelings that occurred" during reading (p. 313). Finally, participants underwent a semi-structured personal interview to investigate their experiences of perceived fraudulence.

Sample items from the PFS include: “At times, I feel that I am in my present position or academic program through some kind of mistake or accident” and “At a social event, I sometimes try to impress people by acting or behaving more intelligently than I really am.” Factor analysis of the PFS revealed two factors labeled Inauthenticity and Self-deprecation. The reliability of the PFS in this initial study was much higher (α = .94) than the HIPS (α = .64). The authors designed an additional study to establish further validity of the PFS with a larger sample of undergraduate students who completed the PFS alongside two depression scales, two anxiety scales, and a measure of self-monitoring. Analysis again confirmed the two-factor solution of the first study, Inauthenticity and Self-deprecation, and revealed links between other constructs such as depression, social anxiety, self-criticism, and achievement pressure.

Chrisman et al. (1995) compared the PFS and CIPS and investigated the construct validity of the CIPS. Internal reliability for the PFS (α = .94) was marginally higher than for the CIPS (α = .92); however, this difference was unremarkable due to the relative length of the 51-item PFS compared to the 20-item CIPS. Undergraduate students (*N* = 269) completed both scales as well as measures of depression, self-esteem, social anxiety, and self-monitoring. The PFS and CIPS were highly correlated with each other and similarly correlated with the other constructs evaluated, indicating that they measured IP in much the same manner. They suggested that the shorter length and ease of administration of the CIPS made it the “more useful instrument for clinical and research purposes” (p. 465). Factor analysis confirmed the three-factor solution of Fake, Discount, and Luck suggested by earlier researchers (Chrisman et al., 1995).

To test the conceptualization that IP should be more present among individuals who

view themselves unfavorably but believe others perceive them positively, Leary et al. (2000) administered the HIPS, CIPS, and PFS along with five self-ratings and five reflected appraisal items (i.e., how they thought they were perceived by others) to undergraduate students (*N* = 238). They hypothesized that impostors would show discrepancies between how they rate themselves and how they believe others evaluate them. Contrary to their hypothesis, participants who rated themselves negatively and assumed others evaluated them negatively obtained the highest IP scores for all three IP scales. These findings call to question the description of those experiencing IP as frauds, given that the participants in this study did not believe that others viewed them as competent. All three measures of IP showed good reliability and were highly correlated. However, the researchers indicated concern that existing scales included items assessing correlates of IP rather than unique defining features. In a second study, Leary et al. (2000) developed a new 7-item scale, the Leary Impostor Scale (LIS), based on existing scales to specifically capture the essence of IP as being a phony or fraud. Participants used a 5-point Likert-type scale to respond to statements such as, "I tend to feel like a phony" and "In some situations I act like an impostor." The new scale showed good reliability (α = .87) and high correlations with existing scales. Ninety-five undergraduate students completed the LIS and measurements of private and public behavior to test the hypothesis that impostors' behaviors might differ due to public self-presentation tactics. When those with high impostor scores believed responses were public and others had low expectations of them, they displayed more impostor symptoms than when responses were private and they thought others had high expectations of them. These results suggest that there may be two types of possible impostors. True impostors embody the traditional conceptualization of IP as individuals who perceive

themselves less positively than other people do. Strategic impostors may use self-presentational tactics, including self-denigration, to lower others' expectations, convey modesty, or attain other interpersonal benefits.

In a systematic review of the IP literature, Mak et al. (2019) selected 18 studies to assess the four extant IP measurement scales. Internal reliability for all scales was generally good, with Cronbach's alpha for CIPS ranging from .85 to .96, HIPS from .34 to .85, and PFS from .57 to .94. Only one study used the LIS and reported good reliability (α = .87). Seven studies used factor analyses to develop or validate IP scales and identified between one and four dimensions of IP in each scale. Multiple studies found a three-factor model of Fake, Luck, and Discount that aligns with the original conceptualization of Clance and Imes for the CIPS (Brauer & Wolf, 2016; Chrisman et al., 1995; Holmes et al., 1993). Some scholars investigating the three-factor model found that omitting four items from the original CIPS yielded a better three-factor fit (Chrisman et al., 1995; Holmes et al., 1993). However, most researchers continue to use the CIPS as a unidimensional measure with all 20 items totaled. Two recent studies compared a one-, two, and three-factor model of the CIPS and found that a single score, including all scale items best explained its structure (Simon & Choi, 2018; Wang et al., 2022). Likewise, multiple studies verified a two-factor model of Self-confidence and IP for the HIPS (Edwards et al., 1987; Hellman & Caselman, 2004) but recommended that the scale be calculated with a unidimensional total score. Researchers have also validated the PFS with a two-factor solution of Self-deprecation and Inauthenticity but, like the other scales, continue to calculate it as a single score (Kolligian & Sternberg, 1991). The conceptualization of the dimensionality of IP continues to be unclear, and the scoring of all measures reflects a unidimensional approach to

measuring IP. Ultimately, Mak et al. (2019) concluded that while the CIPS was the most frequently cited scale by both practitioners and researchers, “it would be premature to classify the CIPS as the gold standard measure of impostor phenomenon” (p. 12).

Walker (2022) recently developed the Impostor Phenomenon Assessment (IPA) in response to concerns about the lack of clarity in available scales. After reviewing the literature and performing a preliminary factor analysis on a 72-item assessment of IP, Walker developed a theoretical framework to conceptualize IP in a three-factor model that included: (a) doubts about achievement, (b) perceived discrepancy, and (c) self-handicapping behaviors. The author developed a 54-item scale and tested its psychometric properties. Total IP scores and each dimension showed excellent reliability across multiple studies, with Cronbach’s alpha ranging from .96 to .98 for total IP, .93 to .95 for perceived discrepancy, .93 to .97 for doubts about achievement, and .80 to .85 for self-handicapping behaviors. Confirmatory factor analysis and structural equation modeling both supported the three-factor model. The IPA may provide a new valid and reliable tool to examine IP with three distinct dimensions; however, the scale has yet to be tested robustly and with varied populations.

2.2.2 Treating the Impostor Phenomenon

In a recent review of the literature, Bravata et al. (2020) found no articles that presented a specific treatment of IP. However, there are several qualitative accounts of the experiences of psychotherapists who have treated patients experiencing IP (Clance, 1985; Harvey & Katz, 1984; Matthews & Clance, 1985) that may lend insights into possible solutions. Drawing on their experience caring for patients with IP, Matthew and Clance (1985) suggested validating doubts and fears, directly addressing fears of failure, and recognizing IP in a group

setting to combat feelings of isolation. Harvey and Katz (1984) agreed that simply naming and discussing the phenomenon with others was the first step to overcoming it. They suggested other strategies, such as breaking down large tasks into manageable steps, monitoring workaholic behavior, and teaching oneself to accept compliments. Clance (1985) provided strategies to break the impostor cycle that included learning to say no, addressing perfectionist tendencies, and identifying non-critical work tasks to eliminate. For individuals supporting others experiencing IP, she suggested validating the impostor's fears, helping them to name the experience and recognize they are not alone, and using specific positive feedback to assist them in realizing they are not a fraud. Ultimately, it is vital for both the impostor and those working to support them to understand that severe IP may need the support of a psychiatrist or counselor.

2.2.3 Variables Impacting IP

In their early descriptions of individuals that experience IP, Harvey and Katz (1984) wrote that IP "is not selective about choosing its victims. Men and women, the young and the old, and members of any race suffer from the feeling of being a fraud" (p. 4). Indeed, researchers investigating IP since its identification in the late 1970s have observed IP in diverse populations. Within the literature, several demographic variables have emerged as possible influencers of IP.

Clance and Imes first became interested in IP by comparing their experiences as high-achieving women at the height of the historical second wave of feminism in the United States (Jarrett, 2010). As a result, from its initial conceptualization, scholars considered gender an influential factor in IP; however, researchers have reported mixed gender effects. In a recent

review of IP literature, Bravata et al. (2020) found 33 articles that compared the rates of IP by gender, with 16 reporting statistically higher IP rates in women (e.g., Cokley et al., 2015; Cusack et al., 2013; Hutchins & Rainbolt, 2017; Jöstl et al., 2012) and 17 finding no gender difference (e.g., Chae et al., 1995; Leary et al., 2000; McClain et al., 2016; Vergauwe et al., 2015).

Scholars have observed varied gender effects among college students. In a sample of 506 American university students, women reported significantly higher IP feelings when compared to men (Cusack et al., 2013). In the same study, gender was the strongest predictor of IP scores. Beard (1990) found similar levels of IP in both male and female undergraduate students (*N* = 63). However, he discovered substantial differences when examining correlations with 25 personality traits. Male participants were less harm-avoidant and showed higher endurance for change than females. Additionally, male impostors reported significantly higher scores on the impulsivity personality variable than non-impostor males and females. Beard's findings indicated that IP was associated with low impulse control in males. However, in women, IP was associated with strong impulse control, low risk-taking behaviors, and fewer or poorer interpersonal relations.

Among university faculty members, Topping and Kimmel (1985) observed contrasting gender effects. In a sample of tenure track faculty members completing the HIPS at two American universities (*N* = 285), men (*n* = 128) reported significantly higher IP than their female (*n* = 157) counterparts (Topping & Kimmel, 1985). Furthermore, the greater the tendency men had to attribute their success to their ability, the lower their IP scores.

Notably lacking from the IP literature is the inclusion of LGBTQ+ and non-binary identifying participants. In the only study reviewed that expanded gender beyond binary

designations, Walker (2022) reported a higher level of IP for those who identify as trans or non-binary. These varied findings support recent investigations that note that gender effects on IP differ by context (Brauer & Proyer, 2019).

In addition to gender differences, scholars have also observed that IP may be more prevalent in minoritized groups (Bernard et al., 2002; Cokley et al., 2017; Joshi & Mangette, 2018; Peteet et al., 2015). Among a sample of high-achieving, underrepresented minority undergraduates (*N* = 161), racial/ethnic identity was a significant predictor of IP for African American and Hispanic students (Peteet et al., 2015). Black (*n* = 117) and Hispanic (*n* = 44) undergraduate students with a cumulative GPA greater than 3.0 completed the 12-item Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1999), CIPS, and measurements of psychological well-being. Peteet et al. (2015) found that two components of racial identity, affirmation and belonging, were significant predictors of IP, accounting for 24% of the variance in CIPS scores. When participants felt they belonged and identified with their ethnic group, experiences of IP were lower. Although it did not emerge as a significant predictor variable, the authors also observed a positive correlation between first-generation student status and IP. Given the small sample of Hispanics, the authors were unable to make meaningful comparisons between the two racial/ethnic groups.

Researchers discovered similar relationships between racial identity and IP in other populations. In a sample of 157 first-year self-identified African American undergraduates, strong racial identity was associated with lower levels of IP, and higher levels of racial discrimination increased IP (Bernard et al., 2018). The authors noted that particularly at predominantly white institutions, experiences of discrimination may lead to feelings of social

isolation that may perpetuate impostor feelings. Lige et al. (2017) asked 112 self-identified African American undergraduate students to complete surveys that assessed how positively they felt toward other African Americans and how much they identified as a part of the African American community. They found a significant negative correlation between participants' positive feelings toward African Americans and IP. Additionally, the more participants identified with and felt a part of the African American community, the less they experienced IP. Cokley et al. (2017) found that for Asian, Latino/a, and African American students, experiences of discrimination led to higher levels of IP that resulted in anxiety and depression. Furthermore, when investigating mental health, African American students' IP was equal to (McClain et al., 2016) or a stronger predictor (Cokley et al., 2017) of negative mental health than discrimination and minority status stress. These findings support the hypothesis that racially driven experiences (e.g., racial discrimination, tokenism) may evoke a sense of otherness that perpetuate feelings of IP (Cokley et al., 2017). Although recent investigations have included racially diverse populations, Bravata et al. (2020) warned that the instruments used to measure IP have been tested and validated in predominantly white samples and may not be valid with minority populations.

As with gender and race, many scholars have investigated the relationship between age and IP. Through examining the extant literature, Bravata et al. (2020) found that peer-reviewed research published on IP between 1996 and 2018 included 14,161 participants reporting a mean age of 20 years. Over half of the studies included students; however, 17 studies included populations with a mean age greater than 30, and five other studies were with professionals but no reported mean age. For those that compared the rates of IP by age, the results were

mixed. Some observed that IP feelings diminished with age (Brauer & Proyer, 2019; Thompson et al., 1998), and others found no effect (Harvey, 1981; Want & Kleitman, 2006). In one of the first investigations of IP, Harvey (1981) reported no significant differences in IP scores related to age in a sample (*N* = 30) of urban professionals. Australian participants (*N* = 115) from various occupations, including doctors, business executives, graduate students, and small business owners, completed the CIPS and measurements of self-handicapping and parenting styles (Want & Kleitman, 2006). There were no significant correlations between age and IP scores. In Brauer and Proyer's (2019) study of IP in a population of German students (*N* = 315) and working professionals (*N* = 229), IP was not associated with age in students but was negatively associated with age in working professionals. For undergraduate psychology students in Australia (*N = 164*), age was negatively associated with IP (Thompson et al., 1998). It is possible that the negative association observed between age and IP may be a result of an ascent in status or position over time rather than a direct result of age (Topping & Kimmel, 1985). Because most prior research used populations with relatively small age variance, it is unclear if age is related to IP. Still, there is evidence to support that experience in a given context may be associated with changes in IP.

Related to age and more salient in the literature is the association of IP with significant life changes. In her conceptualization of IP, Clance (1985) noted that individuals were more likely to experience IP at the start of their careers when just entering the job market or starting a new job or project. Indeed, a substantial amount of literature has investigated individuals experiencing such transitions, including undergraduate students (Ferrari, 2005; Lee et al., 2021; Lige et al., 2017; Peteet et al., 2015; Sorenson, 2022), graduate students (Ayesiga, 2021; Jöstl et

al., 2012; Sims & Cassidy, 2020; Villwock et al., 2016), or those in new or transitioning careers (Lane, 2015; Sims & Cassidy, 2019). Harvey and Katz (1984) observed that although everyone is susceptible to IP, some professions tend to promote it.

> Certain kinds of work demand that we constantly take on different and new tasks. This is frequently the case in creative pursuits. The writer, movie director, architect, or fashion designer continually moves from one project to the next. If you have 'impostor' feelings and work in such a field, you may fear that each new project is the crucial test that will finally reveal your lack of creative talent. (Harvey & Katz, 1984, p. 7)

In summary, researchers have found mixed results when investigating the relationships between demographic variables and IP. They confirmed that IP exists in various populations and is not unique to a particular gender, race/ethnicity, or age group. Individualistic circumstances converge and affect IP in distinct ways in different situations.

In addition to demographic variables, psychologists treating IP and scholars investigating it have observed other traits that positively correlate with feelings of IP. In their definition of IP, Harvey and Katz (1984) noted that IP shared some characteristics with insecurity and low self-esteem, but the constructs were unique. In a later study, Chrisman et al. (1995) affirmed that IP was a different construct than depression, self-esteem, self-monitoring, and social anxiety. Participants' (269 undergraduate students) IP scores were significantly correlated with three different depression scales. However, the three depression scales correlated more highly with one another than the CIPS, indicating that IP was indeed a distinctive construct. Numerous scholars have investigated coexisting psychological conditions such as depression (Chrisman et al., 1995; Cokley et al., 2017; Kananifar et al., 2015; Leonhardt et al., 2017; McGregor et al., 2008; Oriel et al., 2004; Rohrmann et al., 2016; Sonnak & Towell, 2001), anxiety (Bernard et al., 2002; Kolligian & Sternberg, 1991; Ross et al., 2001; Thompson et al., 1998), and low self-

esteem (Lige et al., 2017; Neureiter & Traut-Mattausch, 2016; Oriel et al., 2004; Sonnak & Towell, 2001) and how they relate to IP. Generally, higher levels of IP were associated with higher levels of adverse psychological symptoms.

Researchers have investigated the relationship between depression and IP in varied populations, including undergraduate students in the United States (Chrisman et al., 1995; Cokley et al., 2017; McGregor et al., 2008), Iran (Kananifar et al., 2015), in specific ethnic groups including Asian American, African American, and Latina/o students (Cokley et al., 2017), and in populations of working professionals (Leonhardt et al., 2017; Rohrmann et al., 2016). IP and depression had strong positive correlations in all studies. Both Leonhardt et al. (2017) and Rohrmann et al. (2016) used depression scales that differentiated between feelings of *dysthymia*, a depressed mood, and *euthymia*, a state of internal calm. In both studies, there were high positive associations with dysthymia and weak negative associations with euthymia, indicating that IP is less characterized by the inability to experience positive emotions than by the failure to control fears and apprehensions. It is important to note that no study of depression and IP has implied causation. One can only conclude that individuals with high IP may experience symptoms similar to those suffering from mild depression.

Topping (1983) hypothesized that the constant fear of being recognized as a fraud might trigger anxiety in those suffering from IP. Among 285 university faculty members, she found a strong positive correlation between IP and anxiety. Researchers have replicated this correlation in populations of undergraduate students (Bernard et al., 2002), working professionals (Rohrmann et al., 2016), and medical interns (Oriel et al., 2004). Bernard et al. (2002) found a moderate correlation between CIPS scores and neuroticism in undergraduate students (*N* =

190). Among 242 working professionals, Rohrmann et al. (2016) found a strong positive correlation between anxiety (characterized by general apprehension and tenseness) and IP. Medical interns (*N* = 181) with high levels of IP also reported high anxiety (Oriel et al., 2004). The medical residents were concerned they were not prepared to practice family medicine after completing their internship despite 90% of respondents indicating they felt they were obtaining adequate training. Those suffering from IP symptoms also experienced heightened levels of anxiety which may be related to the feelings of self-doubt that define IP.

Multiple scholars have recognized that those suffering from high IP exhibit low levels of self-esteem. This conclusion is easy to understand as the essence of IP lies in the belief that one is not capable, intelligent, or skilled enough to perform in their role. Researchers have discovered strong negative correlations between IP and self-esteem in American undergraduates (Chrisman et al., 1995), Australian undergraduates (Thompson et al., 1998), Middle Eastern medical students (Naser et al., 2022), and European collegiate students (Neureiter & Traut-Mattausch, 2016; Sonnak & Towell, 2001). Thompson et al. (1998) described that impostors internalized failure more than non-impostors, thus leading to lower self-esteem. For Australian undergraduates experiencing IP (*N* = 164), there were significant effects on all three dimensions of an attitude towards self scale that measured the degree to which individuals possess high standards for self-evaluation, make harsh judgments on themselves for failing to attain these standards, and overgeneralize a single failure into their composite self-concepts. Impostors held higher standards for themselves, had the propensity to engage in self-criticism, and tended to overgeneralize single failures. Additionally, impostors reported lower academic and global self-esteem than did non-impostors. It is plausible that the impostor cycle

also contributes to a pattern of self-criticism and lowered self-esteem, or conversely, that those with low self-esteem are more vulnerable to IP.

Others have worked to further investigate and define IP as a personality construct (Bernard et al., 2002; Chae et al., 1995; Ross et al., 2001; Vergauwe et al., 2015). Bernard et al. (2002), Chae et al. (1995), and Ross et al. (2001) each investigated correlations between the Big Five personality Traits (Costa & McCrae, 1992) and IP. The five-factor model of personality identifies five traits of personality: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Both Bernard et al. (2002) and Ross et al. (2001) conducted research with American college students, and Chae et al. (1995) surveyed Korean Catholics. Using both the PFS and CIPS (Bernard et al., 2002), only the CIPS (Chae et al., 1995), and only the HIPS (Ross et al., 2001), research teams discovered strong positive correlations between IP and neuroticism and moderate negative correlations between IP and conscientiousness. All three studies had similar results for both male and female participants. The strong correlation between IP and neuroticism in three disparate populations and with differing measurements of IP suggests that individuals suffering from IP may also exhibit higher levels of anxiety, depression, self-consciousness, and vulnerability. The negative relationship between IP and conscientiousness is not an intuitive result, as one might assume that feeling phony and unprepared for a given task may result in higher self-discipline and dutifulness. Bernard et al. (2002) explained that impostors may engage in self-handicapping. The pressure of meeting expectations they feel unable to achieve may instigate behaviors such as providing excuses and explanations for their perceived failures.

Similar correlations between IP and the Big Five personality traits emerged in a study of

Belgian professionals (Vergauwe et al., 2015). Belgian employees *(N* = 201) from the sectors of finance and accounting, human resource management, and education participated in a study that measured IP, the Big-Five-Personality traits, core self-evaluations, perfectionism, and job satisfaction. Like earlier studies (Bernard et al., 2002; Chae et al., 1995), Vergauwe et al. (2015) found relatively strong positive correlations between IP and the personality traits of neuroticism and negative correlations between IP and conscientiousness. Additionally, they found a moderate negative correlation between extraversion and IP. There was also a strong negative correlation between IP and core self-evaluations. Participants experiencing strong impostor feelings tended to exhibit self-doubt and low self-efficacy. Job satisfaction was negatively correlated with IP. Employees with strong IP feelings were somewhat dissatisfied with their jobs; however, when social support was high in the workplace, IP was not associated with low job satisfaction. Within this sample of Belgian professionals, workplace social support seemed to be an effective mitigator of IP.

In Clance's (1985) observation of impostors, she noted that they tended to reject any performance that did not reach their perfect standards. They held unrealistic expectations for themselves even when others evaluated them positively. To follow up on these observations, several researchers investigated perfectionism and its correlation with IP (Grubbl & Grubb, 2021; Henning et al., 1998; Lee et al., 2021).

Henning et al. (1998) investigated IP, perfectionism, and psychological distress in American medical, dental, and nursing students (*N* = 477). Participants completed the CIPS, the Multidimensional Perfectionism Scale (MPS; Frost et al., 1990), and a measure of psychological adjustment. The MPS yields three subscales of perfectionism. Self-oriented perfectionism

reflects an individual's attempts to be perfect in their work and to criticize their performance. Other-oriented perfectionism relates to how one has high expectations of others. Socially prescribed perfectionism involves an individual's perception that others have high expectations of them and will criticize them for not meeting their expectations. All three dimensions of perfectionism showed a significant and moderate positive correlation with IP.

University students (*N* = 634) from a large public institution in the United States completed an online survey that included the CIPS and measures of two domains of perfectionism—concern over mistakes and personal standards (Grubbl & Grubb, 2021). According to the authors, concern over mistakes represents a maladaptive form of perfectionism as it typically changes an individual's perception of how others perceive them. In contrast, individuals exhibiting adaptive perfectionism (higher personal standards) simply strive to meet personal goals but are not prone to dysfunction. The correlation between IP and concern over mistakes was moderate and significant, while the correlation with personal standards was weaker but significant. Both forms of perfectionism were positively related to IP.

Lee et al. (2021) investigated how university honors program participation and perfectionist beliefs were related to impostor feelings. Undergraduate students (*N* = 244), 89 of whom were enrolled in the honors program at a public research university, completed the MPS to measure perfectionism and the CIPS to measure IP. IP had a significant and moderate positive correlation with socially prescribed perfectionism and a significant but weak positive correlation with self-oriented perfectionism. Socially prescribed perfectionism was a statistically significant predictor of IP. Those who scored highly on socially prescribed perfectionism felt that other people imposed unrealistic standards on them and had an expectation of perfect

performance. Given the similar tendency of impostors to feel they are unable to meet standards set for them, the positive relationship between IP and perfectionism is tenable.

The prevalence of IP in undergraduate students and those in highly competitive environments led other researchers to investigate how IP might affect career development. In a series of two studies, Neureiter and Traut-Mattausch (2016) investigated IP and its relationship with career development. In the first study, upper-level undergraduate students at European institutions (*N* = 212) completed the German translation of the CIPS and measurements of fear-of-failure, fear-of-success, self-esteem, career planning, and motivation-to-lead. Strong positive relationships were present between IP and fear-of-failure and fear-of-success. There was a strong negative relationship between IP and self-esteem. Fear-of-failure, fear-of-success, and self-esteem explained 63% of the variance of IP. IP was a significant predictor of three aspects of career development. Those with higher IP reported less career planning and less motivation to lead. Moreover, they did not display a desire to advance their professional status. In a second study, employees of a German international airport (*N* = 110) completed an online survey with the same measurements as the initial study. IP was highly correlated with fear-of-failure, fear-of-success, and self-esteem in the worker sample, explaining 71% of the variance of IP. For the worker sample, fear-of-success was the strongest predictor of IP, while fear-of-failure was the strongest predictor in the student sample. Negative correlations between IP and career planning, career striving, and motivation to lead were stronger in the worker sample than in the student sample. Together, the findings suggest that high fear of failure in students, the fear of rejection by colleagues due to success in working professionals, and low self-esteem in both samples provide strong pre-conditions for developing impostor feelings.

Individuals experiencing significant life changes, such as a professional or educational transition, may also experience inflated impostor feelings (Clance, 1985). Tension, low self-efficacy, and turmoil often accompany the identity development of young adults aged 18 to 25 as they move from adolescence to adulthood (Polach, 2004). Lane (2015) investigated this phenomenon in terms of IP through a qualitative study with emerging adults who were either not currently enrolled in an educational program or within one year of graduating college. The researchers targeted this sample as they would likely be young professionals or individuals preparing to transition into professional life by engaging in job searches and career decisions. Participants read fictional narratives of a person experiencing IP in a professional setting and completed open-ended responses comparing that person's experiences with their own. In follow-up interviews, the research team sought to further understand their experiences with IP. Of the 29 participants, 79.3% (*n* = 23) indicated that they experienced impostor feelings, and most offered examples of their experiences. The most salient themes emerging from the data were experiences of perceived fraudulence, discrediting evidence of competence, and self-doubt—all elements supported in previous IP literature. Feelings of phoniness were most common when participants were acclimating to new levels of academic or professional responsibility. Participants frequently minimized their achievements and conveyed disbelief that their skills or abilities contributed to their success. They also expressed self-doubt, especially in situations of anticipation, such as waiting for responses following job interviews. Participants expressed a strong desire for external validation, yet, when they received it, they tended to discredit it. Notably, the theme of comparison was prominent and seemed to stimulate impostor feelings. Participants described various types of comparative behavior,

including witnessing peers succeed, interacting with colleagues in group projects, and speculating about the confidence of others. When individuals perceived others as capable or successful, it stimulated impostor feelings. Conversely, some participants described observing colleagues struggle with work tasks and experienced increased confidence as a result. Most of the effects of impostor feelings reported were external factors related to work, such as increased avoidance, procrastination, hesitation to ask questions, reduced ability to effectively communicate with colleagues and supervisors, fear, worry, and anxiety.

Recently, scholars have investigated IP within the the music education profession, including university faculty (Ramey, 2022; Sims & Cassidy, 2019), graduate students (Sims & Cassidy, 2020), student teachers (Sorenson, 2022), and undergraduate students (Nápoles et al., 2023). Results from these studies indicate that those in the music education profession experience IP symptoms in various contexts. Sims and Cassidy (2019) were among the first music education researchers to investigate IP. In their initial study, they investigated to what extent early career music education faculty experienced IP. Participants included 54 music education faculty members in the first four years of employment following their doctoral work. The researchers adapted the CIPS to create modified scales specific to the primary responsibilities of music education faculty members—undergraduate teaching, graduate teaching, and research. Participants completed the original CIPS, the three additional adapted scales, an optional free response section to further explain their experience, and demographic information. All participants experienced IP feelings on at least one of the scales. Many participants fell into the moderate to intense ranges for IP. Participants reported the most frequent IP feelings in their roles as researchers, with most participants reporting frequent and

intense IP feelings. Participants reported moderate IP feelings for graduate teaching. They were most comfortable with their undergraduate teaching responsibilities and reported slightly lower IP feelings in this domain. Notably, no relationship existed between participants' reported IP feelings on the research scale and their actual research productivity. This finding supports the premise that people experience IP feelings despite being successful.

Ramey (2022) found similar results when investigating university-level choral faculty. She administered the CIPS and modified versions specific to conducting, teaching, and research responsibilities. Most of her participants (206 choral faculty) reported moderate to intense levels of generalized IP and domain-specific IP. They experienced the highest levels of IP related to their research responsibilities, followed by conducting and then teaching. There was no significant main effect for gender in this study. A moderate negative correlation was present between IP and years of experience, suggesting that IP feelings may be more intense for early career faculty when compared to more experienced faculty.

Sims and Cassidy (2020) found that a substantial number of music education graduate students experienced impostor feelings. Participants (N = 130) were students enrolled in graduate music education programs working toward either a master's (n = 73) or doctoral (n = 57) degree. Most participants reported frequent to intense IP on both the generalized scale and a scale adapted for graduate music study. Females, full-time students, those who were not in a committed relationship, and those who were first-generation graduate students experienced more intense IP symptoms than their counterparts. Notably, those working on a face-to-face degree experienced more intense IP symptoms than those in online or hybrid programs, further supporting the notion that opportunity for social comparison with peers or colleagues may lead

to stronger impostor feelings. Findings in this study confirmed that, like music education faculty, graduate students also experience substantial levels of IP.

Sorenson (2022) extended IP research to individuals student teaching as part of the undergraduate music education degree program. Participants (173 student teachers from multiple US institutions) completed the original CIPS and a scale modified to capture the experience of music student teachers. Most participants reported moderate to intense IP feelings both on the original CIPS and the modified music student teacher CIPS. Only one participant fell into the category of few IP symptoms on the CIPS, and only two fell into this category on the modified CIPS, indicating that feelings of IP were prevalent among music student teachers. Overall, females (n = 93) scored higher than males (n = 74) on both measures of IP. Nearly half of female and non-binary identifying respondents fell within the intense IP category, but only 26.03% of males did. Participants reported higher IP related to secondary student teaching than in elementary placements.

Six participants participated in a focus group to further explain the quantitative results and discuss their experiences with IP. Five themes emerged: (a) fraudulence, (b) fear of failure, (c) the natural genius effect, (d) the music(ian) factor, and (e) talking it out. As expected, given the constructs of IP, fraudulence, and fear of failure were common themes expressed by participants. Sorensen described the natural genius effect in terms of a personality trait. A natural genius is "primarily concerned with the time it takes to learn something new or master a skill" (p. 68). Several student teachers expressed that it was difficult to accept that they were not master teachers on 'day one' of their student teaching experiences. Another theme unique to music educators is what Sorensen labeled the music(ian) factor. Participants expressed that

they struggled with expectations to be both competent teachers and musicians. When asked what might be effective in helping participants cope with IP, the theme of talking it out emerged. Consistent with the suggestions of psychologists (Clance, 1985; Harvey & Katz, 1984; Matthews & Clance, 1985), music student teachers noted that talking about IP with peers and colleagues helped them cope with impostor feelings. Music student teachers, like graduate students and early career faculty members, experienced substantial IP symptoms.

Recently, scholars have investigated IP among undergraduate music education majors and its relationship to burnout (Nápoles et al., 2023). Undergraduate music education students at three research universities in the United States (*N* = 164) completed the CIPS and a measure of student burnout. When examined by area of concentration (band, choir, orchestra, and general music), all groups reported frequent symptoms of IP. To explore the relationship between IP and burnout, researchers regressed the three dimensions of burnout on CIPS scores. IP was the greatest predictor of burnout in all three dimensions. These results provide evidence of the negative consequences of exhaustion, reduced professional efficacy, and increased cynicism among music education students due to IP.

2.3 Social Comparison and the Impostor Phenomenon

The conceptualization of IP as an individual's perception of competence in a social context logically implies an element of social comparison as part of impostor phenomenon. However, scant research has investigated the relationship between IP and social comparison. Fraenza (2016) posited that social comparison might play a role in graduate students' experience of IP. Students enrolled in a traditional graduate class (*n* = 105) and students enrolled in an online version of the same course (*n* = 115) completed the CIPS alongside a self-

presentation scale that measured an individual's level of focus on presenting themselves positively to other people. Those enrolled in the traditional course had significantly higher scores on the CIPS than those in the online course. Participants' tendency to focus on perfectionism in their self-presentation was the most significant predictor of IP. These findings suggest that the social environment and the way in which an individual compares themselves with others is an important factor in IP. Indeed, researchers found a moderate positive correlation between social comparison and IP in a study of German university students (*N* = 278) who completed the CIPS and a measure of social comparison orientation (Fassl et al., 2020).

Hutchins and Rainbolt (2017) conducted a series of semi-structured interviews with university faculty members (*N* = 16) experiencing impostor feelings to understand the phenomenology of IP. The themes that emerged from the analysis included a high tendency to compare themselves with colleagues regarding knowledge, expertise, and productivity. For example, one participant described an incident in which she faked understanding of a topic while conversing with a colleague and then felt shame for not knowing enough about the subject matter. The researchers suggested that the highly competitive environment of academia encourages social comparison that leads to high levels of IP among faculty members, a finding that others have substantiated in multiple studies of university faculty members (Guillaume et al., 2019; Ramey, 2022; Sims & Cassidy, 2019).

Conversely, other researchers have found that for some individuals, engaging in social comparison may decrease feelings of IP (Jensen & Deemer, 2020). American university students (*N* = 946) completed the CIPS, a social comparison scale, and a measure of attachment styles. A

person with an anxious attachment style might be afraid of or even incapable of being alone. They seek intimacy and closeness. An individual with an avoidant attachment style is more independent and may avoid getting emotionally close to others. Path analysis revealed that higher levels of social comparison reduced feelings of IP for participants with an avoidance attachment style. The authors suggested that for these participants, increased social comparison allowed them to gather more information on what it takes to successfully complete academic tasks and therefore compare themselves more positively with others. Those with avoidance attachment and low social comparison did not obtain this information.

Chayer and Bouffard (2010) investigated the link between IP and children's propensity to use social comparison. As part of a broader study on the development of perceptions of competence, Canadian elementary school children (*N* = 740) in grades five and six completed measures of IP and social comparison. The research team developed the Questionnaire du Sentiment d'Imposteur pour Enfants et Adolescents (Impostor Feelings Questionnaire for Children and Adolescents) because no suitable instrument existed for young children. In a validation study, the scale showed high reliability (α = .84). Likewise, the researchers developed a scale to measure the propensity to use social comparison, which also showed good reliability (α = .79). Finally, students completed an adapted scale to measure four processes of social comparison, upward contrast, downward contrast, upward identification, and downward identification that reported good reliability (α = .68). Upward contrast refers to a student feeling frustrated when they see another student performing better than them. Downward contrast measured feelings of competence resulting from seeing students who did not do as well as themselves. Upward identification identified feelings of hopefulness resulting from

seeing a student performing better than themselves, and downward identification measured feelings that they will get worse after seeing other students struggling. Only 20% of students indicated no impostor feelings. Thus, 80% reported some level of IP, with 3% showing a strong presence of IP feelings, confirming that IP does affect students as young as 10–12 years old. There were no significant differences among grades or gender for IP. Impostor feelings were positively correlated with the tendency to use social comparison (r = .31), downward contrast (r = .19), upward contrast (r = .52), and downward identification (r = .53). Upward identification was not related to IP. Consequently, the researcher excluded the variable from further analysis. Boys had a higher tendency to use social comparison than girls. Boys also displayed more use of downward comparison than girls. For girls, the variables of social comparison, downward contrast, upward contrast, and downward identification explained 38.1% of the variance of IP. For boys, the same variables explained 38.8% of the variance. The tendency to engage in social comparison contributed to the variance only in boys. Upward contrast was the most substantial variable for girls. Notably, the definition of upward contrast used in this study, the tendency to be frustrated when viewing an individual performing better than oneself, is closely related to the conceptualization of upward comparison in the broader research literature. Therefore, in both boys and girls, this study confirmed that children who compared themselves to others or simply felt negative when others performed better than them displayed stronger impostor feelings.

Only one known study investigated impostor feelings in relation to online social comparison. Guillaume et al. (2019) engaged in an autoethnography to better understand how social media affected early career university faculty's sense of self through the lens of

legitimacy and impostor phenomenon. The researchers discovered that all three participants questioned their productivity as a result of seeing colleagues make social media posts about their work. One participant stated:

> There are times when I will be online just scrolling through my Facebook timeline and see my fellow academic friends bragging about their latest article/book published or where their work is being featured. At times when I see this, I begin to question my own work ethic and whether or not I am as active as I need to be. It is very easy to compare oneself to what we see others doing in the field against our own constraints. (p. 130)

Another participant explained, "Seeing these posts stir up feelings that I have fought so hard to overcome daily since signing my faculty contract. Those feelings of being an impostor" (p. 130). All participants described heightened anxiety and stress because of their social media use, which ultimately resulted in increased impostor feelings.

It is evident that varied populations experience IP in many contexts. The feelings of being a fraud, incapable of fulfilling the expectations of others, incompetent, or unintelligent seem to be particularly common among students, those in career transitions, and those in highly competitive environments. The consequences of IP may include lowered well-being or less motivation to exceed. In some cases, feelings of IP may result in an individual giving up on their aspirations altogether. In addition, the opportunity for individuals to constantly compare to others on SNSs may exacerbate feelings of IP. The vast literature confirms that these feelings may be present in men, women, students, and professionals and may occur in the context of one's family, school, or work life.

2.4 Statement of the Problem and Research Questions

Given the expansive literature on both social comparison and impostor phenomenon, the prevalence of both constructs in populations of undergraduate students, particularly those

in highly competitive environments, and the detrimental consequences of IP, it is important to understand how they converge in music education students. The emerging body of research specific to the music education context has confirmed the substantial presence of IP in populations of undergraduate music education students. Still, there are no known studies that investigate possible predictors of IP beyond demographic variables. Additionally, there are no known studies that investigate social comparison and its consequences in the context of music education. A better understanding of social comparison and IP may assist music teacher educators in preparing students to enter the career with strategies to mitigate their impostor feelings. Furthermore, by acknowledging and naming IP and better understanding its causes, students may be able to self-regulate IP and improve their well-being.

The purpose of this study is to examine how undergraduate music education students engage in online social comparison using Facebook and to investigate relationships between demographic variables, online social comparison, and IP. Research questions include:

1. To what extent do music education students experience IP, and do experiences of IP vary according to the demographic variables of gender, year-in-school, music education focus area, race/ethnicity, and first-generation student status?

2. To what extent do undergraduate music education students use Facebook and does it vary according to the demographic variables of gender, year-in-school, music education focus area, race/ethnicity, and first-generation student status?

3. To what extent do undergraduate music education students engage in online social comparison, and does it vary according to the demographic variables of gender, year-in-school, music education focus area, race/ethnicity, and first-generation student status?

4. To what extent do the demographic variables of gender, year-in-school, music education focus area, race/ethnicity, first-generation student status, and the variables of online social comparison and intensity of Facebook use predict IP in undergraduate music education students?

5. What are undergraduate music education students' perceptions of how they engage in online social comparison as related to their professional identity?

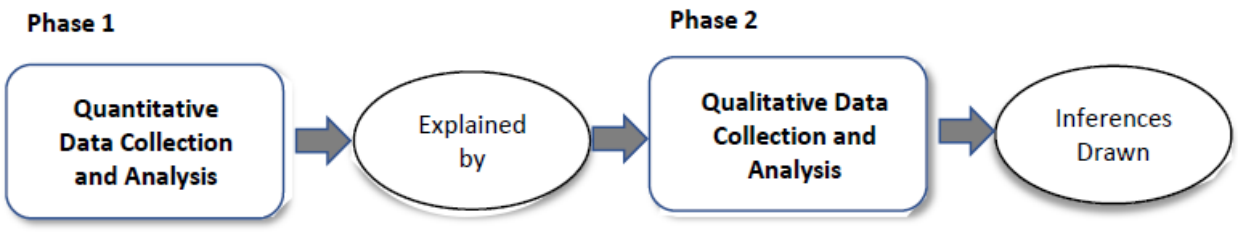
CHAPTER 3

METHOD

To explore the stated research questions, I employed an explanatory sequential mixed methods model (see Figure 3.1; Creswell, 2015). According to Creswell and Plano Clark (2011), this type of design is ideal when valid and reliable instruments are available to measure the primary components of the research questions in an initial quantitative phase and when the complex individual experiences of the participants may help to further explain the initial data in a qualitative phase. Mixed methods research designs have only recently begun to emerge in the field of music education (Fitzpatrick, 2014). In an article discussing the publication of mixed methods studies in the *Journal of Research in Music Education,* Sims (2011) writes, "When authors synthesize the findings generated from analysis of both types of data, they gain insights that are greater than those that might be obtained from either analysis alone" (p. 227). Considering the exploratory goals of the current study and the individualistic nature of social comparison and IP, I used the mixed methods design to better understand the research questions than I could obtain in either a quantitative or qualitative design alone (Creswell & Plano Clark, 2011).

Figure 3.1

Explanatory Sequential Design



Source: Creswell (2015).

3.1 Phase 1

Phase 1 included the development and distribution of a survey to collect demographic information and measure Facebook intensity, online social comparison, and impostor phenomenon. After adapting scales from previous research, a content validity panel of undergraduate music education students (*n* = 5) reviewed the instrument and provided feedback to improve the clarity of the questions. The final question on the survey allowed participants to provide contact information (name and email address) to volunteer for participation in Phase 2.

3.1.1 Data Collection

The written questionnaire contained four sections: (a) demographic information, (b) the Facebook Intensity Scale (FBI; Ellison et al., 2007), (c) the modified Facebook Social Comparison Frequency Scale (FSCP; Burke et al., 2020), and (d) the Clance Impostor Scale (CIPS; Clance, 1985). Demographic predictor variables based on findings from the review of literature included gender (e.g., Clance & Imes, 1978; Cokley et al., 2017; Cusack et al., 2013; Hutchins & Rainbolt, 2017; Sims & Cassidy, 2019, 2020), year-in-school (Lockwood & Kunda, 1997; Topping & Kimmel, 1985), first-generation college students (Ayesiga, 2021; Sims & Cassidy, 2020), and race/ethnicity (Bernard et al., 2018; Cokley et al., 2017; Joshi & Mangette, 2018; Peteet et al., 2015). I selected gender designations based on recommendations from the Pew Research Center (Amaya et al., 2020). Additionally, after review, the content validity panel recommended the designations of transgender female and transgender male to replace the single category of transgender. To collect race/ethnicity designations and classify participants for reporting, I used guidelines from the National Center for Education Statistics (U.S. Department of Education,

2023). Because previous scholars observed high levels of IP among first-generation undergraduates (Ayesiga, 2021), I asked participants to report if they were first-generation college students. Additionally, I included music education focus area (band, choir, orchestra, general music) because of its relevance to the current study. Following the demographic section, participants completed scales of Facebook intensity, Facebook social comparison, and impostor phenomenon, which all showed very good ($\alpha > .80$) to excellent ($\alpha > .90$) internal reliability, as defined by Kline (2000).

3.1.1.1 Facebook Intensity Scale (FBI)

The Facebook Intensity Scale (Ellison et al., 2007) measures Facebook usage beyond simple measures of frequency and duration. It incorporates emotional connectedness to the SNS and its integration into individuals' daily activities. Researchers have widely used the FBI to study the impact of social media on individuals and their well-being (Aamir, 2020). The scale showed good reliability in multiple samples using university students, with Cronbach's alpha ranging from .83 to .89. Following the procedures of Ellison et al. (2011), who sought to distinguish all Facebook friends from *actual* friends, I added one question (Question 8) to quantify Facebook friends that were also part of the field of music education. A validity panel of undergraduate music education students ($n = 5$) examined the entire modified scale and provided feedback to improve the clarity of questions. Following the panel's advice, I changed Question 6 to read, "I would be upset if Facebook shut down" rather than the original, "I would be sorry if Facebook shut down." The resulting scale contained nine items. Questions 1–8 used a 5-point Likert scale ranging from *strongly disagree* to *strongly agree.*

According to the developers of the FBI, Questions 7–9 can utilize open-ended questions

or an ordinal scale. Following the recommendation of Ernala et al. (2020) that closed-ended questions yielded more accurate self-reporting of Facebook use, I chose to use ordinal scales. For Questions 7 and 8, I used the 10-point ordinal scale suggested by the developers. For Question 9, I used the 5-point ordinal scale ranging from *less than 10 minutes per day* to *over 3 hours per* day recommended by Ernala et al. (2020), to maximize the accuracy of self-reported Facebook use. I calculated the Facebook intensity score using the instructions in the manual by finding the mean of all items in the scale. Ellison et al. (2011) found that calculating the FBI with actual friends rather than all friends yielded different results; therefore, I computed one score using all friends (Question 7) and one score using friends that participants identified as part of the music education profession (Question 8) to better understand Facebook intensity within the context of music education. In this study, the scale showed good reliability both when calculated with total Facebook friends (α = .83) and with friends within the music education profession (α = .85).

3.1.1.2 Facebook Social Comparison Frequency Scale

Based on instruments used in past literature, researchers at the parent company of Facebook, Meta, developed the Facebook Social Comparison Frequency scale to measure how users engaged in social comparison on Facebook (Burke et al., 2020). The scale developers (Burke et al., 2020) reported good internal reliability (α = .75). The original scale contained four items, each scored on a 5-point Likert scale ranging from *never* to *always.* The scale was adapted to assess social comparison within the context of music education. For example, the original question “On Facebook, how often do you compare your own accomplishments to the accomplishments of other people?” was adapted to read, “On Facebook, how often do you

compare your own accomplishments to the accomplishments of *other music education students or professionals*?" The modified scale showed very good reliability (α = .87) in the context of the current study.

3.1.1.3 Clance Impostor Scale (CIPS)

According to Holmes et al. (1993), the CIPS has good reliability, distinguishes between impostors in both clinical and non-clinical populations, and is the preferred instrument for research with the general, non-clinical population. I obtained permission to use the scale from the developer, Dr. Pauline Clance, via email correspondence. I included the CIPS in its original form with the words "as a music education student" added in the instructions as follows (addition in italics; words were not italicized when presented to participants):

> For each question, please circle the number that best indicates how true the statement is of you *as a music education student*. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

The CIPS includes statements such as "I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task." There are 20 items measured on a 5-point scale from *not at all true* to *very true*. I calculated the CIPS score by computing the sum for all items as directed in the manual. Following Clance's instructions, I categorized those scoring less than 40 as having *few* impostor characteristics, between 41–60 *moderate*, 61–80 *frequent*, and over 80 *intense*. According to Clance, the higher the score, the more frequently and intensely IP interferes in the respondent's life. I found the CIPS to show excellent reliability (α = .90) in the current study.

3.1.2 Participants

Using the planned demographic variables of gender, year-in-school, music education

focus area, first-generation college status, and race/ethnicity, and the measures of Facebook intensity and Facebook social comparison, I calculated a target minimum sample size of 105 responses by using a recommended case-to-predictors ratio of 15:1 (Mertler & Vannatta Reinhart, 2017). I also conducted an a priori power analysis using *G*Power version 3.1.9.6* (Faul et al., 2007) with an alpha level of .05, a power ($1 - \beta$) level of .80, a medium effect size of f^2 = .15 (Cohen, 2018), and seven predictor variables, which yielded a minimum sample size of *N* = 89.

After obtaining university IRB approval, I recruited participants enrolled in the undergraduate music education program at a research university in the southwestern United States. Any student with a major in music education was eligible. Participants completed an informed consent form (Appendix B) and a paper questionnaire. I collected 141 questionnaires, assigned each survey a case number, and then transferred data into a spreadsheet with one field that indicated "yes" or "no" to designate those who expressed interest in participating in the qualitative phase. To maintain anonymity during the quantitative analysis, I stored paper questionnaires containing names and emails associated with each case separate from the digital data. I transferred data from the spreadsheet to IBM SPSS Statistics (Version 29) for statistical analysis.

Through initial data screening, I found that eight surveys were incomplete. I removed them from the analysis. Examination of both box plots and stem-and-leaf plots indicated two outliers which I eliminated. Demographic data indicated participants' gender identity (woman, *n* = 51; man, *n* = 73; transgender female *n* = 1; non-binary, *n* = 5; did not report, *n* = 1), year-in-school (first year, *n* = 58; second, *n* = 19; third, *n* = 28; fourth, *n* = 21; fifth or later, *n* = 5), and

music education focus area (band, *n* = 91; choral, *n* = 30; general music, *n* = 1; orchestral, *n* = 9). Fifteen students indicated that they were first-generation college students. Using the statistical standards defined by the National Center for Educational Statistics (2023) for post-secondary institutions, I used answers to two race and ethnicity questions to classify participants into seven categories (Hispanic, *n* = 38; White, *n* = 79; Asian, *n* = 4; Black or African American, *n* = 3; two or more races, *n* = 7).

3.2 Phase 2

In Phase 2, I used focus groups to explore music education students' perceptions of online social comparison and IP. Because social comparison is the result of the interaction of multiple individuals, I chose to use focus groups to better understand participants' experiences. Morgan (1997) posited that using focus groups as an interview technique has an advantage over individual interviews because it allows the researcher to observe interactions between group members on a topic. Additionally, the researcher can explore similarities and differences in participants' experiences in real-time rather than through post hoc analysis.

Following statistical analysis of the quantitative results, I examined the data to identify participants for Phase 2. According to Creswell and Plano Clark (2011), "Although participants from the first phase may simply volunteer to participate in the second qualitative phase, a stronger connection can be made when participants are determined through information arising from the quantitative data analysis" (pp. 234–235). Because the purpose of the qualitative strand was to investigate Research Question 5 (What are music education students' perceptions of how they engage in online social comparison as related to their professional identity?), I invited participants (*n* = 38) with scores that indicated moderate to intense IP and

who reported moderate to high levels of online social comparison in the quantitative strand to participate in the focus group. Thirteen participants responded to my invitation, and 12 followed through with participation. The final sample (*n* = 12) included participants who identified as women (*n* = 9), men (*n* = 2), non-binary (*n* = 1), from two music education focus areas (band, *n* = 2; choral, *n* = 10) who represented race/ethnicity classifications of Hispanic (*n* = 3), White (*n* = 7), Black or African-American (*n* = 1) and two or more races (*n* = 1) in various years of study in their degrees (first year, *n* = 4; second, *n* = 2; third, *n* = 3; fourth, *n* = 3).

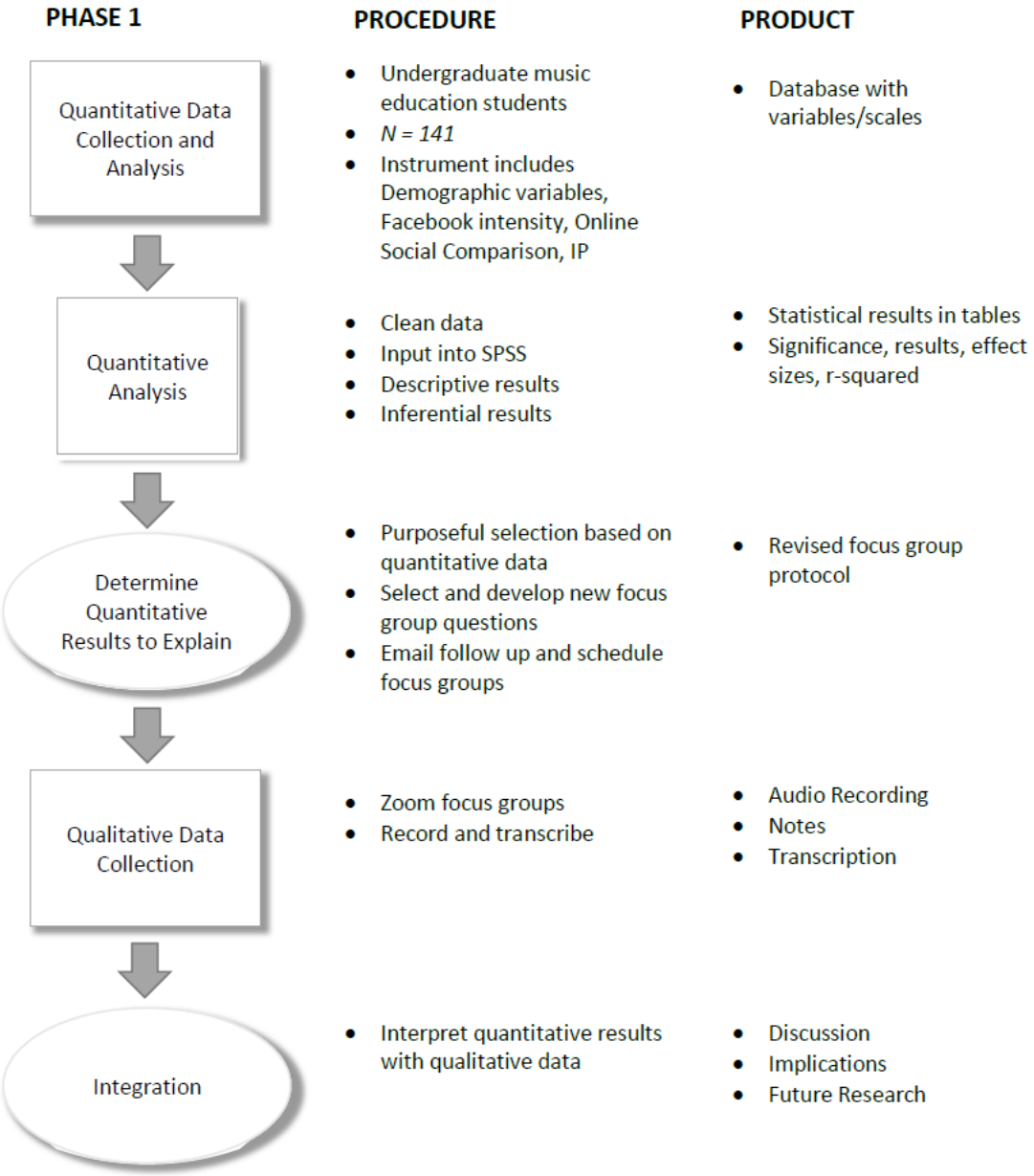
To maintain a target group size of 6–10 participants as suggested by Morgan (1997), I assigned participants to one of two 45-minute focus groups based on their scheduling needs (Group 1, *n* = 5; Group 2, *n* = 7). I used a semi-structured model to encourage depth of discussion, to allow participants to guide the direction of the focus group, and to communicate their experiences (see Appendix A). One music education researcher served as an observer during both focus groups to assist in taking detailed notes. Following each focus group session, I compared my notes with the focus group observer, discussed observations of participants, and considered possible themes. I captured audio recordings using Zoom software and then imported audio files into Otter.ai for transcription. I verified and edited the transcriptions (Appendix C) and then coded the transcripts using the Dedoose (Version 9.0.90) web application.

According to Creswell and Plano Clark (2011), the final step of an explanatory mixed-methods design involves integrating the qualitative and quantitative results. After completing an independent analysis of Phase 1 and Phase 2 data, I considered how the qualitative results confirmed, challenged, or explained the quantitative data by engaging in connected mixed

methods data analysis (Creswell & Plano Clark, 2011). Following the suggestion of Fitzpatrick (2014), I utilized direct integration in Chapter 5 by presenting "qualitative quotes, codes, or themes alongside specific statistical results that align topically" (p. 216). Figure 3.2 provides a graphic representation and indicates relevant products for each phase of the research design.

Figure 3.2

Summary of Explanatory Sequential Mixed Method Design



Creswell and Plano Clark (2011) defined validity in mixed methods research as "employing strategies that address potential issues in data collection, data analysis, and the interpretations that might compromise the merging or connecting of the quantitative and qualitative strands of the study and the conclusions drawn from the combination" (p. 239). Similarly, Fitzpatrick (2014) suggested that validity in mixed methods research depends on rigor in both quantitative and qualitative research methods. In addition to the validity checks employed in each phase, I used strategies for minimizing threat when merging data (suggested by Creswell and Plano Clark, 2011) that included drawing quantitative and qualitative samples from the same population, finding quotes that matched the statistical results, presenting both sets of data in equal ways, and having other researchers evaluate the overall project and objectives.

CHAPTER 4

RESULTS

In this chapter, I state the findings from each phase of the study. First, to answer Research Questions 1, 2, and 3, I present participants' demographic information with descriptions of their experience of impostor phenomenon (IP), Facebook intensity, and Facebook social comparison. I then report the results for variables that predict IP to answer Research Question 4. Finally, I describe the qualitative findings from the focus groups used in Phase 2.

4.1 Phase 1

To answer Research Question 1 (To what extent do music education students experience IP, and does it vary by selected demographic variables?), I first tallied surveys and categorized IP scores. Following the instructions provided for the CIPS, I summed the responses for each participant's survey to create a single IP score. According to Clance (1985), the higher the score, the more frequently IP interferes in a person's life. Those with a total score of 40 or less have *few* impostor characteristics. Those scoring between 41 and 60 have *moderate* IP feelings. A score between 61 and 80 indicates that the participant has *frequent* IP experiences and an individual scoring over 80 is displaying *intense* IP. Most participants (77.8%) reported frequent to intense IP symptoms (frequent, n = 65; intense, n = 37). Only one participant reported having few impostor feelings, and 28 fell into the moderate category.

I examined CIPS scores (see Table 4.1) and the breakdown of participants in each category of IP intensity (see Table 4.2) to explore how CIPS scores varied by demographic variables. Overall, the highest CIPS score of any group was seen among participants who

identified as non-binary (*M* = 82.60, *SD* = 12.66), compared to those who identified as a woman (*M* = 73.78, *SD* = 12.38) or a man (*M* = 69.16, *SD* = 14.62). All non-binary respondents and 84.31% of women fell into the frequent or intense IP category, compared to 72.61% of males.

Table 4.1

Descriptive Data of CIPS Categories by Demographic Variables

	Few		Moderate		Frequent		Intense	
	n	%	*n*	%	*n*	%	*n*	%
Gender								
Woman	0	0.00	8	15.69	26	50.98	17	33.33
Man	1	1.37	19	26.03	36	49.32	17	23.29
Non-Binary	0	0.00	0	0.00	2	40.00	3	60.00
Trans Male	0	0.00	1	100.00	0	0.00	0	0.00
Year in School								
First	1	1.72	12	20.69	29	50.00	16	27.59
Second	0	0.00	4	21.05	7	36.84	8	42.11
Third	0	0.00	6	21.43	16	57.14	6	21.43
Fourth	0	0.00	5	23.81	9	42.86	7	33.33
Five or more	0	0.00	1	20.00	4	80.00	0	0.00
Focus Area								
Band	1	1.10	21	23.08	43	47.25	26	28.57
Choir	0	0.00	6	20.00	16	53.33	8	26.67
Orchestra	0	0.00	1	11.11	5	55.56	3	33.33
General Music	0	0.00	0	0.00	1	100.00	0	0.00
Race/Ethnicity								
Hispanic	0	0.00	8	21.05	17	44.74	13	34.21
White	1	1.27	18	22.78	41	51.90	19	24.05
Asian	0	0.00	0	0.00	2	50.00	2	50.00
Black or African American	0	0.00	0	0.00	2	66.67	1	33.33
Two or more	0	0.00	2	28.57	3	42.86	2	28.57
First Generation								
Yes	0	0.00	1	6.67	8	53.33	6	40.00
No	1	0.86	27	23.28	57	49.14	31	26.72

Table 4.2

CIPS Scores by Demographic Variables

Characteristic		M	SD
Gender	Woman	73.78	12.36
	Man	69.16	14.62
	Non-Binary	82.60	12.66
	Trans Male	58.00	0.00
Year in School	First	71.83	14.35
	Second	73.79	14.02
	Third	71.00	14.42
	Fourth	70.00	13.82
	Five or more	67.00	7.38
Focus Area	Band	71.09	14.57
	Choir	70.93	13.19
	Orchestra	76.33	9.73
	General Music	77.00	0.00
Race/Ethnicity	Hispanic	73.97	14.47
	White	70.10	13.93
	Asian	73.75	13.65
	Black or African American	74.67	6.11
	Two or more	70.43	14.32
First-generation	Yes	77.13	10.66
	No	70.72	14.16

CIPS scores were similar for participants in each year of school. Second-year students reported slightly higher CIPS scores (M = 73.79, SD = 14.02) than those in other categories (first-year, M = 71.83, SD = 14.35; third-year, M = 71.00, SD = 14.42; fourth-year, M = 70.00, SD = 13.82; and five-or-more-years, M = 67.00, SD = 7.38). More second-year students (42.11%) fell into the intense IP category compared to all other years of school.

Participants within the music education focus areas of band and choir reported similar

levels of IP (band, *M* = 71.09, *SD* = 14.57; choir, *M* = 70.93, *SD* = 13.19). Those with an orchestra focus reported marginally higher IP (*M* = 76.33, *SD* = 9.73). The single participant with a general music focus reported the highest CIPS score of 77. Examination of IP categories revealed more nuanced differences. Band, choir, and orchestra participants reported intense IP in similar proportions. More participants with a band focus reported few or moderate IP experiences (24.74%) than choir (18.75%) or orchestra (11.11%) participants. All but one orchestra participant fell into the frequent or intense category of IP compared to more even distributions of levels across band and choir participants.

Participants' overall CIPS scores were similar for all races/ethnicities (Hispanic, *M* = 73.97, *SD* = 14.47; White, *M* = 70.10, *SD* = 13.93; Asian, *M* = 73.75, *SD* = 13.65; Black or African American, *M* = 74.67, *SD* = 6.11; two or more races, *M* = 70.43, *SD* = 14.32). However, differences emerged when examining the intensity with which different races/ethnicities experienced IP feelings. Only 24.05% of White participants reported intense IP characteristics compared to 33.33% of Black or African American participants and 34.21% of Hispanic participants.

The mean CIPS score for first-generation college students (*M* = 77.13, *SD* = 10.66) was higher than the means for any other subgroup of demographics. Additionally, 40% of first-generation college students reported intense IP feelings compared to 26.72% of those who were not first-generation students. Furthermore, 93.33% of first-generation college students reported impostor symptoms that ranged from frequent to intense.

Facebook intensity ranged from 0.88 to 4.50, indicating that the extent to which participants engaged in Facebook use was varied and individualistic (see Figure 4.1). Fifteen

participants responded “strongly disagree” to every question on the FBI, suggesting those individuals engaged in little to no Facebook use. An examination of the means within each demographic variable revealed minimal variability among gender, area of music education focus, race/ethnicity, and first-generation college student status (see Table 4.3). Facebook intensity increased as students advanced through years of school (see Figure 4.2).

Figure 4.1

Frequency Distribution of Reported Facebook Intensity

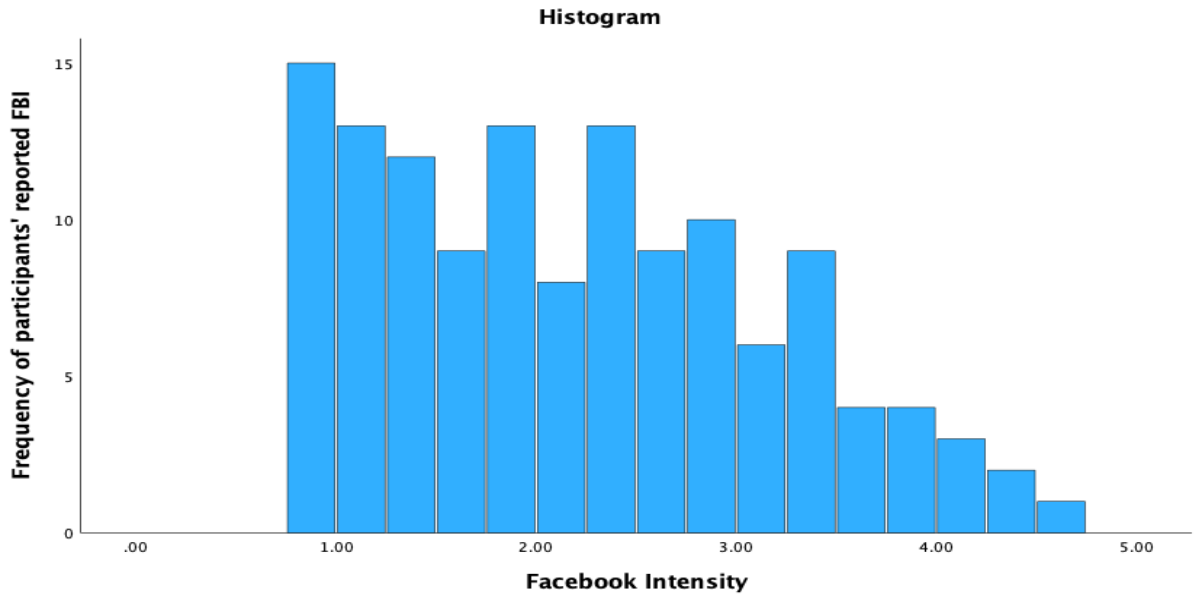


Table 4.3

Facebook Intensity and Facebook Social Comparison by Demographic Variables

	FBI		M-FBI		FBSC	
	M	*SD*	*M*	*SD*	*M*	*SD*
Gender						
Woman	2.12	0.97	1.90	0.82	2.87	1.12
Man	2.14	0.98	1.96	0.85	2.62	1.03
Non-Binary	2.42	1.05	2.13	0.77	2.8	1.18
Trans Male	2.13	0.00	2.13	0.00	1.75	0.0

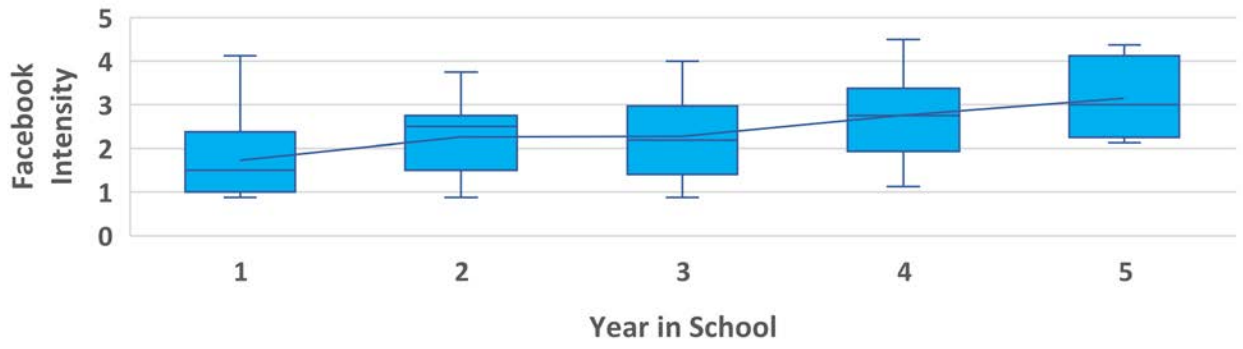
(table continues)

	FBI		M-FBI		FBSC	
	M	*SD*	*M*	*SD*	*M*	*SD*
Year in School						
First	1.73	0.84	1.65	0.77	2.37	1.12
Second	2.26	0.85	2.02	0.68	2.86	1.07
Third	2.28	0.90	1.99	0.77	3.11	0.84
Fourth	2.76	0.93	2.42	0.83	3.04	1.02
Five or more	3.15	0.96	2.85	0.88	2.9	0.68
Focus Area						
Band	2.11	0.93	1.94	0.80	2.69	1.07
Choir	2.25	1.10	1.99	0.93	2.81	1.11
Orchestra	2.17	0.82	2.00	0.72	2.92	0.98
General Music	1.00	0.00	1.00	0.00	1.50	0.00
Race/Ethnicity						
Hispanic	1.87	0.79	1.72	0.65	2.6	1.06
White	2.22	1.03	2.00	0.88	2.75	1.11
Asian	2.94	0.99	2.66	0.91	2.69	0.47
Black or African American	2.29	0.83	2.08	0.85	3.25	0.25
Two or more	2.20	0.85	2.04	0.83	2.93	1.13
First Generation						
Yes	2.25	0.90	2.09	0.82	3.05	1.08
No	2.13	0.97	1.93	0.83	2.68	1.06

Note. FBI and MFBI are scale means. A score < 1 indicates little to no Facebook use; a score > 5 indicates intense use. According to Ernala et al. (2020) FFBSC represents mean scores ranging from 1 (*never)* to 5 (*always*).

Figure 4.2

Facebook Intensity by Year in School



Following the model of Ellison et al. (2011), I calculated a second Facebook intensity score using the estimated number of Facebook friends who were music education students or professionals. The Music-Facebook Intensity score (MFBI) was highly correlated with the general FBI measure (r = .978, p < .001), indicating an almost perfect direct relationship between the two scores. As expected, the impact of demographic variables on the MFBI scores mirrored those of the general FBI scores.

The average frequency of Facebook Social Comparison (FBSC) scores across the four questions in the FBSC was 2.73 on a 5-point scale, just below "sometimes." Like Burke et al. (2020), I categorized participants into those who said they *never* or *rarely* engaged in social comparison on Facebook (FBSC ≤ 2), those who *sometimes* engaged in social comparison (FBSC between 2–4), and those who *often* or *always* engaged in social comparison on Facebook (FBSC ≥ 4; see Table 4.4). Most participants (n = 77, 58.8%) sometimes engaged in social comparison. A substantial number (n = 37, 28.2%) never or rarely engaged in social comparison on Facebook, while a smaller group (n = 17, 13.0%) often or always engaged in social comparison on Facebook.

Table 4.4

Descriptive Data of Facebook Social Comparison Frequency by Demographic Variables

	Never or Rarely		Sometimes		Often or Always	
	n	**%**	***n***	**%**	***n***	**%**
Gender						
Woman	11	21.57	31	60.78	9	17.65
Man	23	31.51	43	58.90	7	9.59
Non-Binary	2	40.00	2	40.00	1	20.00
Trans Male	1	100.00	0	0.00	0	0.00

(table continues)

	Never or Rarely		Sometimes		Often or Always	
	n	%	*n*	%	*n*	%
Year in School						
First	25	43.10	29	50.00	4	6.90
Second	4	21.05	12	63.16	3	15.79
Third	3	10.71	21	75.00	4	14.29
Fourth	4	19.05	11	52.38	6	28.57
Five or more	1	20.00	4	80.00	0	0.00
Focus Area						
Band	28	30.77	52	57.14	11	12.09
Choir	7	23.33	18	60.00	5	16.67
Orchestra	1	11.11	7	77.78	1	11.11
General Music	1	100.00	0	0.00	0	0.00
Race/Ethnicity						
Hispanic	13	34.21	20	52.63	5	13.16
White	22	27.85	46	58.23	11	13.92
Asian	1	25.00	3	75.00	0	0.00
Black or African American	0	0.00	3	100.00	0	0.00
Two or more	1	14.29	5	71.43	1	14.29
First Generation						
Yes	2	13.33	10	66.67	3	20.00
No	35	30.17	67	57.76	14	12.07

Comparison of FBSC scores across demographic variables elucidated several differences. Only 9.5% of men said they often or always engaged in social comparison on Facebook, compared to 17.65% of women and 20% of non-binary participants. A large proportion (43.10%) of first-year students reported that they rarely or never engaged in social comparison on Facebook, compared to a small percentage of all other groups. First-generation students were less likely to report rarely engaging in social comparison on Facebook (13.33%) than non-first-generation students (30.17%). Conversely, 20% of first-generation students fell into the frequent category compared to 12.07% of non-first-generation students.

I analyzed each item of the Facebook Social Comparison Scale to investigate how

participants engaged in online social comparison (see Table 4.5). Participants most often thought about how they presented themselves as musicians or music educators on Facebook. Nearly half of the participants (*n* = 61, 46.60%) indicated that they often (*n* = 39) or always (*n* = 22) thought about how they presented themselves as a musician or music educator. Only 19.8% (*n* = 26) of participants responded that they never observed other musicians or music education students on Facebook to decide how to act. Most participants (*n* = 102, 77.9%) reported that they at least occasionally compared their accomplishments to those of other music educators and music education students on Facebook. Similarly, 71.0% (*n* = 93) reported that, to some degree, they felt worse about themselves after engaging in social comparison on Facebook.

Table 4.5

Item Analysis of the Facebook Social Comparison Scale

Item	*M*	*SD*
Q1. On Facebook, how often do you observe what other music education students or professionals are doing to decide how you should act?	2.51	1.03
Q2. On Facebook, how often do you compare your own accomplishments to the accomplishments of other music education students or professionals?	2.85	1.32
Q3. On Facebook, how often do you think about how you present yourself as a musician or music educator to other people?	3.08	1.39
Q4. On Facebook, how often do you feel worse about yourself after comparing yourself to other music education students or professionals?	2.46	1.26

Note: 5-point scale ranging from *never* (1) to *always* (5)

To answer Research Question 4 (To what extent do the demographic variables of gender, year in school, music education focus area, race, first-generation student status, online social comparison, and intensity of Facebook use predict IP in undergraduate music education students?), I conducted a stepwise multiple regression with CIPS score as the dependent variable. Researchers often use stepwise multiple regression in exploratory studies and when

they seek to determine which predictors from a large set of independent variables make a meaningful contribution to the prediction (Mertler & Vannatta Reinhart, 2017).

Prior to analysis, I screened the data to test the assumptions for multiple regression. Only one participant identified as a transgender female, five as non-binary, and one did not respond to the gender question. Therefore, I included only participants that identified as a Woman or a Man for meaningful comparisons. Similarly, most participants indicated a focus area of band (*n* = 91) or choir (*n* = 30); general music (*n* = 1) and orchestra (*n* = 9) groups were too small to include in statistical analyses. The final sample size was 115 for this portion of the analysis. Within this sample, most participants indicated race/ethnicity as White (*n* = 68) or Hispanic (*n* = 33). The remaining groups were not large enough for even distributions (Asian *n* = 4; Black or African American *n* = 3; two or more races *n* = 7). Accordingly, I excluded race/ethnicity as a predictor variable in the regression analysis.

I examined correlations for all variables to assess the independence of relationships among variables (see Table 4.6). There was a large positive correlation (*r* = .65; Cohen, 2018) between FBI and FBSC. Previous research reported that social comparison was higher among people who spent more time on Facebook and had a larger number of Facebook friends (Burke et al., 2020). Thus, I expected the positive correlation between FBI and FBSC as two components of FBI were time spent on Facebook and number of Facebook friends. The focus of the present study was to investigate the relationship between social comparison and impostor phenomenon; therefore, because of the relationship between FBI and FBSC indicating the constructs were not sufficiently independent, I deleted FBI as a variable and kept FBSC as a predictor variable. Correlations for all other variables were within acceptable levels (Field,

2018). I found no outliers when comparing Mahalanobis distances to the critical chi-square value of 18.47 (*df* = 4, *p* = .001). Tolerance for each independent variable was above .1, confirming that multicollinearity assumptions were met. Kolmogorov-Smirnov and Shapiro-Wilk tests revealed some non-normal distributions; however, visual inspection of normal probability plots indicated that distribution discrepancies were not extreme. I examined residual plots to confirm that assumptions of normality and homoscedasticity were also met.

Table 4.6

Correlations Between Variables

Variable	1	2	3	4	5	6
1. Facebook Intensity	—					
2. FB social comparison	.659*	—				
3. Year in School [a]	.456*	.328*	—			
4. CIPS	.022	.365*	−.021	—		
5. First generation college [b]	−.035	−.108	.009	−.189	—	
6. Gender [c]	.020	-.144	.102	−.172	.076	—

[a] Year in school is a continuous variable. This correlation indicates as year increased, FBI and FBSC increased. [b] Values are point-biserial correlations for self-reported status Yes (0) / No (1). [c] Values are point-biserial correlations for self-reported Female (0) and Male (1) respondents only. * $p < .001$

The model summary indicated that only one of the four variables, Facebook social comparison, was a significant predictor and thus entered into the model (see Table 4.7). Results show that the overall model was significant, $F(1, 113) = 17.36$, $p < .001$, accounting for 13.3% of the variance in CIPS scores. (See Table 4.8 for an ANOVA summary table of the regression model and Table 4.9 for a summary of regression coefficients.) The variables of gender, year-in-school, and first-generation student status were not significant predictors of impostor phenomenon.

Table 4.7

Model Summary Predicting CIPS

R	R^2	Adj. R^2	*SE*	ΔR^2	df^2	df^2	ΔSig. *F*
.365[a]	.133	.125	13.191	.133	1	113	< .001

[a] Predictor: Facebook social comparison

Table 4.8

ANOVA Summary Table

	SS	*df*	*MS*	*F*	*p*
Regression	3020.156	1	3020.156	17.358	< .001
Residual	19661.287	113	173.994		
Total	22681.443	114			

Table 4.9

Coefficients Table

	B	*SE*	β	*t*	*p*	Bivariate *r*	Partial *r*
(Constant)	57.804	3.324		17.390	< .001		
FBSC[a]	4.754	1.141	.365	4.166	<.001	.365	.365

[a]Facebook social comparison

To summarize, quantitative results indicated that most participants experienced frequent to intense impostor feelings. Inspection of CIPS scores across the demographic categories of gender, first-generation college status, and race/ethnicity revealed subtle differences. Non-binary participants were the only demographic group with a mean CIPS score falling into the intense category. On average, participants who identified as a man or woman reported CIPS scores that were similar to each other. CIPS scores; however, a greater proportion of women reported frequent to intense impostor feelings. Participants that were first-generation college

students reported more frequent impostor feelings than their non-first-generation counterparts. Despite the observed differences, none of the demographic variables explored made a meaningful contribution to the overall model predicting IP.

Over 90% of participants indicated that they at least sometimes engaged in social comparison on Facebook. A greater proportion of those who were first-generation college students reported engaging in social comparison on Facebook than those who were not the first in their families to attend college. The extent to which participants compared themselves to others on Facebook increased as they progressed through years in school. Over 40% of first-year students reported that they never or rarely engaged in social comparison on Facebook, compared to approximately 20% of those in their fourth or more year of college. There was a large positive correlation between Facebook intensity and Facebook social comparison indicating that those who used Facebook more intensely also engaged in more social comparison on Facebook. Overall, results revealed that impostor phenomenon and online social comparison on Facebook were prevalent among all demographic variables of participants. Although there were nuanced differences among variables, only Facebook social comparison emerged as a significant predictor of overall CIPS scores, explaining 13.3% of the total variance.

4.2 Phase 2

I conducted two focus groups to investigate Research Question 5 (What are music education students' perceptions of how they engage in online social comparison as related to their professional identity?) and further explore social comparison and IP among

undergraduate music education students. A total of 12 participants engaged in one of two 45-minute focus groups (see Table 4.10).

Table 4.10

Focus Group Participants

Participant[a]	First Gen College	Gender	Year in School	FBI[b]	FBSC	CIPS
Emily	No	Woman	1	3.25	frequent	intense
Gabriel	Yes	Man	1	2.38	frequent	intense
Olivia	No	Woman	1	2.75	moderate	intense
Hannah	No	Woman	2	2.63	moderate	Intense
Jacob	No	Non-Binary	3	3.50	frequent	intense
Alyssa	No	Woman	4	3.25	moderate	Intense
Taylor	No	Woman	4	3.63	moderate	frequent
Ella	No	Woman	2	3.75	frequent	intense
Ethan	No	Man	4	2.38	frequent	frequent
Makayla	No	Woman	3	1.38	moderate	frequent
Megan	No	Woman	1	1.38	moderate	frequent

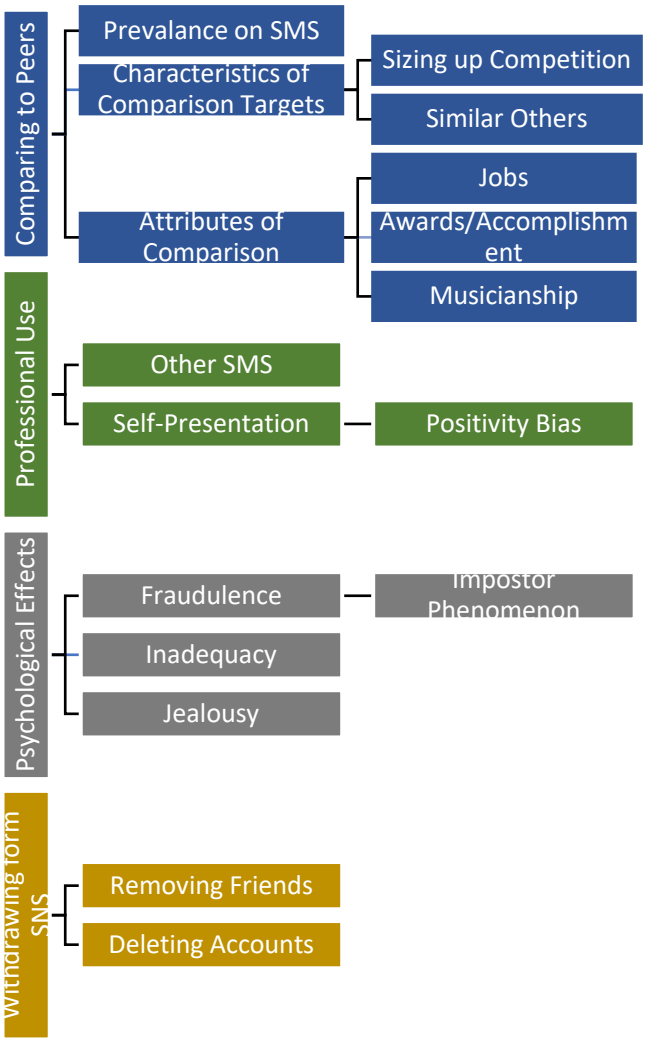
[a]All names are pseudonyms. [b]Facebook Intensity; higher scores indicate more user engagement.

Following the procedures of Creswell and Poth (2018) and Saldaña (2021), I coded the focus group transcripts. I first used structural coding with descriptors derived from the quantitative research questions (e.g., social comparison, impostor phenomenon). I completed a second round of coding in which I applied more detailed descriptive codes within each structural category. Next, I asked two music education researchers to serve as peer reviewers and offer suggestions for revising codes. Using their recommendations, I completed a third round of descriptive coding and then organized and combined codes to identify themes. Four themes emerged: (a) comparing to peers, (b) psychological effects, (c) Facebook for

professional use, and (d) withdrawing from social network sites (SNSs). Within each theme, several secondary themes emerged (see Figure 4.3).

Figure 4.3

Emergent Themes and Codes



4.2.1 Comparing to Peers

Participants made many references to how they compared to peers within the music education program at the university. They indicated that social media was the primary method they used to investigate other students in the program. Several participants noted that

admittance into the collegiate music education program coincided with increased online social comparison. Megan recalled that she would look up students on social media prior to meeting them in person and stated that "it kind of started before I'd even gotten to [the university]—an atmosphere of social comparison." Emily concurred that seeing a person's social media before ever meeting them helped to "contextualize the person in your mind." She disclosed that seeing others' musical accomplishments "made me feel behind." Ella expressed that engagement in comparison was a new phenomenon for her:

> One of the main things is at the beginning of the school year, I was also looking up the people that were coming into [the school], and I think this is the first time I've ever really felt, like, competition with anyone else . . . I've always sort of tried to keep myself away from that as much as possible.

In both focus groups, it became evident that the environment of the music school contributed to participants' engagement in social comparison.

Participants identified several commonalities that they used as points of comparison with others on Facebook. Several noted that they saw peers' Facebook posts announcing their admittance to collegiate music education programs. Megan stated, "They got into a million other places, and I didn't." Olivia noticed that her peers posted primarily positive experiences on Facebook and that it was "easy to forget that and look at all of their accomplishments that they're posting and be like, 'well, I haven't done like any of that—I don't have all these accomplishments to post.'" Others acknowledged seeing peers post about music-related jobs and feeling that their employment was inadequate. Jacob described that they saw Facebook posts in which many of their friends were "starting to do all these summer programs and land these big gigs and auditions" and reflected, "It just kind of made me feel like I'm not doing enough." Olivia observed, "I see a lot of my peers and my friends getting jobs teaching voice

lessons and singing in church choirs and doing all of these music-related jobs." Considering her employment in a non-music-related position, she stated, "I feel like sometimes I'm doing a disservice to myself by not getting a music-related job." Other participants agreed that their observations on Facebook led them to perceive that having a music-related job was an expectation of music students. They voiced concerns that their financial situation kept them from getting a job in the field of music. Additionally, they expressed that jobs within the field of music typically paid less than their current employment. Similarly, Gabriel felt that his need for income prevented him from engaging in musical enrichment activities such as competitions and masterclasses saying, "It's not something I can focus on . . . I need to work because I need to buy a new instrument." Overall, participants perceived that the musical achievement and opportunities their peers posted on Facebook were a source of upward comparison.

Participants frequently mentioned musical ability as a point of comparison on social media. Alaina described, "What I personally struggle with on social media is seeing people's [social media] when they post videos of a jury or departmental—something that is showing their progress throughout the year." Gabriel described watching peers post videos of practice sessions he perceived as "performance ready" and feeling "they were just all better" than him. Similarly, Taylor said she engaged in "doom scrolls" in which she passively watched videos of peers doing "incredible things" musically, which "put [her] in a pit of such anxiety." Olivia agreed, saying, "You look at people your own age that are a lot better than you, and you're like, 'Wow, am I doing something wrong? Am I just not as naturally talented as them?' and then that creates a whole cycle." Ethan described his experience as an older undergraduate student:

> Me being a 22-year-old student, watching people who are like 16, 17, 18 years old, just going into college, playing at astronomical levels, better than what I'm capable of . . .

> that was something that contributed to me dropping out of college for a semester . . . it just made me feel like . . . you know, maybe this isn't exactly for me.

For many in the focus groups, observing what they perceived as superior performances on social media contributed to feelings of inferiority and fraudulence associated with impostor phenomenon.

4.2.2 Professional Use of Facebook

Participants largely agreed that their primary use of Facebook was to engage professionally with peers and colleagues and that they used other forms of social media, such as Instagram, for personal engagement. Olivia explained, "Facebook is more professional, and Instagram is more personal." Alyssa agreed: "Personally, the only reason I use Facebook is for professional use." For many, Facebook engagement increased as they entered college. Taylor described the change:

> When I graduated high school, I maybe had 200 friends on Facebook max, all like family and friends, people that I knew. Now as a senior, I have over 800, and those are, I can guarantee you that like 500 of those 600 that I gained are all professional . . . My Facebook is almost entirely professional. I think of it almost as a more wholesome LinkedIn.

Olivia described a similar experience of arriving at college and peers sharing their Facebook pages with her:

> I'm like, 'What, y'all are my age, and you're using Facebook?' And now, I actively use Facebook. I feel like my mom. I'll scroll through Facebook at the end of the night and see people's jury videos and departmental videos . . . Facebook is kind of [where you post] I went to [the state music convention], here's my jury video, here's my departmental video.

Because participants primarily used Facebook in a professional context, many expressed that they were careful about how they presented themselves on the social media platform.

Makayla noted, “It seems to me that a lot of people who are perhaps older in the industry . . . present themselves in . . . a purely professional way [on Facebook], and so that kind of influences us to do the same.” Alyssa noted that because many of her professors use Facebook, “I’m careful about my presence on there.” Emily was concerned about her image on Facebook in future potential interview situations and wanted to make sure a principal that might see her Facebook would think “she is a good person, but she also is successful.” For most participants, the desire to present a favorable professional profile of themselves on Facebook was a substantial concern.

4.2.3 Psychological Effects

Participants experienced feelings of jealousy, inadequacy, and intimidation due to online social comparison. Taylor noted, “I think there’s a certain aspect of jealousy that’s really unhealthy” that resulted from comparing herself to others on Facebook. She continued, “I can’t help but feel a certain amount of inadequacies by their posts.” Describing her feelings after viewing the Facebook posts of peers displaying their musical experiences, Ella reflected, “It just really made me feel inferior . . . it made me feel like I was missing out on something.” In addition to looking at current posts by Facebook friends, several participants described looking through past posts in their feeds and comparing the past music performance level of others to themselves at similar ages. Emily recalled looking at older posts from upper-level music majors to compare their performance ability when they were younger to her current level. She concluded that she wasn’t as good as the older students were when they were her current age. She remembered thinking, “I’m never going to be as good as they are.” For some participants, comparison led to feelings of fraudulence, causing them to believe they should not be in the

university music program. Ella described a conversation with friends in which they questioned, "How did we get in here?" after viewing musical performances posted on their peers' Facebook feeds. Similarly, Alyssa recounted showing a non-music friend the performance of a colleague on Facebook and telling her, "I don't even know how the heck I got into [this university]." The conflict between how some participants viewed their musical ability and how others viewed them became apparent in an interaction with Alyssa. After Alyssa described that she was hesitant to post videos of her musical performances on Facebook, I questioned, "Do you think you're a good musician?" to which she responded, "I think other people do," confirming the internal feeling of fraudulence. Ella described her experience and identified the prevalence of IP among music education students. She recalled a conversation with a peer in the music program:

> These underclassmen are miles ahead of what we were . . . I've gone through so many conversations with my best friend. Both of us were just constantly, just like being really down, but we passed it off as an average conversation, which I think is so sad—that we've allowed ourselves to get that much of impostor syndrome to where it's like normal to just chat with your friends on an average day about how much you think you suck and how much you don't think you belong in a music program.

Despite all participants in the focus group being admitted to the same highly selective music program, they consistently expressed feelings of self-doubt characteristic of those suffering from impostor phenomenon.

4.2.4 Withdrawing from SNSs

For several participants in the focus groups, negative feelings that resulted from social media use motivated them to withdraw from using SNSs either by removing friends from their feeds or deleting social media accounts. Ella stated, "I actually had to unfollow people on

Facebook, not because they were like super toxic, but just because seeing what they were doing was interfering with how I was feeling about myself." Hannah described the perceived positive effects of temporarily removing her Instagram account. "I just felt so much more secure in myself, like not having to go on social media every day and [think], 'Oh, this person's doing this versus doing that.'" She noted that she could only remove her Instagram account and not her Facebook account because some of the activities within the university program required her to keep a Facebook account for communication. After hearing others in the focus group describe success with removing social media, Megan agreed, "Deleting social media and being able to avoid that altogether—I think can be really helpful." The head nods of many participants confirmed that most agreed that removing or restricting social media use was a good strategy to mitigate negative feelings associated with it.

Results from the qualitative strand suggest that music education students engage in a substantial amount of online social comparison and associate their behavior with several adverse outcomes. As participants entered the music education degree program, they often used social media to "size up" their peers by comparing themselves not only to current Facebook posts of others but also by passively scrolling through others' timelines and making points of comparison to others' past accomplishments. Frequently, participants' descriptions of online interactions involved upward social comparison leading to negative feelings about themselves. Only one participant mentioned experiencing positive benefits of downward social comparison when seeing peers performing worse than themselves. Taylor admitted that sometimes she observed others who "were supposed to be on a higher level" than her and thought "that's something I could do." She said, "That just naturally makes you feel better

about yourself." Participants confirmed they engaged on multiple social media platforms, most commonly referencing Facebook, Instagram, and BeReal. Typically, they used Facebook as a platform for professional networking and reserved other SNSs for their personal lives.

The data provided strong support for the notion that music education students engage in social comparison on Facebook, which may result in feelings associated with IP. The most expressed impostor feeling was that of not belonging or deserving to be in the music education program. Despite having passed a rigorous audition for admission, participants typically had little confidence in their abilities. Although participants rarely labeled their feelings as impostor phenomenon, they described feeling unsuccessful despite their musical successes—a hallmark of those experiencing IP. Participants identified social media as a negative influence on their mental health, demonstrating an awareness of the psychological impact of online social comparison. It was clear from the focus groups that participants routinely engaged in online social comparison related to their professional identity as music education students.

CHAPTER 5

DISCUSSION

In this chapter, I discuss the results by considering to what extent and in what ways the qualitative results explained the quantitative results (Creswell & Plano Clark, 2011). According to Fitzpatrick (2014), "integration, or mixing, of qualitative and quantitative data sets is now considered to be an essential component of mixed methods designs" (p. 216). To integrate the quantitative and qualitative results, I examined the quantitative research questions and used the data collected in focus groups to confirm and expound upon the quantitative data. Additionally, I consider the results in the context of existing research literature. Following the discussion, I consider the implications and limitations of the current study and propose future directions for research.

5.1 Integration

In Research Question 1, I asked, "To what extent do music education students experience IP, and does it vary according to the demographic variables of gender, year in school, music education focus area, race, and first-generation student status?" Both quantitative and qualitative results revealed that music education students experienced substantial feelings of IP. Scores on the CIPS indicated that 77.8% of participants experienced frequent to intense IP symptoms. During focus group sessions, one participant labeled the feelings resulting from online social comparison as "impostor syndrome" and noted that it was so prevalent among music education students that it had become a part of "average conversation" among peers. Although she did not label her symptoms as IP, another participant responded, "Other people think so," when asked if she felt she was a good musician. Her

response is congruent with the conception of IP as the feeling of fraudulence a person feels despite others viewing them as successful (Clance, 1985; Harvey & Katz, 1984). Similarly, as focus group participants conversed with each other, many expressed their disbelief in their own ability and didn't feel they deserved their place among their talented peers at the university. Their statements are consistent with Clance's (1985) assertion that "probably the most dominant characteristic of IP victims is that they . . . can't accept the objective evidence regarding their success or intellectual ability" (p. 88). Several participants in the focus group sessions explained that after viewing peers' social media posts about practicing or participating in musical enrichment opportunities, they felt they were "not doing enough." Olivia explained how seeing posts on Facebook made her feel like she should be working harder, saying, "I'll see, like, someone's in a practice room, and I'm like, I'm just sitting in bed, I should get my ass up and go practice." Harvey and Katz (1984) described the feeling of needing to overwork to feel competent as "the workaholic" type of impostor (p. 36). The outward symptom of feeling a need to over-prepare was a shared experience among participants. The statements and behaviors I observed during the focus groups were congruent with both Clance's (1985) and Harvey's (1984) characterization of impostors.

The qualitative data provided no evidence to confirm or support differences in IP among the demographic variables of gender, race, and first-year college student status. The participants in the focus group did not represent the same diversity as the larger population completing the quantitative portion and I observed no variation in expressed feelings of IP. Unlike the original conception of IP (Clance & Imes, 1978), there was no evidence that gender influenced IP. Gender did not emerge as a predictor variable in quantitative analysis, nor did I

observe differences related to gender in the way participants in the focus groups described impostor feelings. This finding aligns with those of Bravata et al. (2020), who, through a review of recent IP literature, found many studies that reported no gender differences in experiences of IP. In contrast to the original conception of IP as an experience unique to females (Clance & Imes, 1979), the results of this study add to the growing body of literature that reports no differences in IP among male and female participants. There were only a small number of non-binary participants; therefore, it was implausible to make group comparisons. However, it is important to note that, as in previous studies, non-binary participants in this study reported higher levels of IP (Nápoles et al., 2023) and social comparison (Walker, 2022) than other groups.

Overall, quantitative and qualitative data revealed that music education students in this study experienced frequent to intense levels of IP. This result is similar to that of Nápoles et al. (2023), who found that mean IP scores of music education undergraduates fell within the frequent category. The growing body of evidence suggests that IP may be prevalent among music education students and experienced similarly among all demographics within music education programs.

In answer to the second and third research questions concerning the extent to which music education students use Facebook and engage in online social comparison, the quantitative results indicated that 71.8% of participants engaged in social comparison on Facebook. Additionally, a significant positive correlation existed between Facebook intensity and year-in-school ($r = .45$, $p < .001$). Focus group participants confirmed they engaged in online social comparison with peers in the music education program. Consistent with Wheeler's

(1966) similarity hypothesis that an individual is more likely to engage in upward social comparison with a person who shares similar attributes with them, participants in the focus groups often noted that comparing themselves to peers near their experience level and age invoked the strongest feelings of comparison. In many cases, participants used the timeline feature of Facebook to make comparisons with colleagues that were more experienced than them at earlier points in their development. For example, a first-year student might view an old post on a senior friend's Facebook timeline. The first-year student may then compare their current success level with the senior student's post on Facebook from their first year of college and conclude that they were less advanced than the senior student at the same reference point in school. In this instance, using Facebook, an individual can extend the pool of similar others available to all Facebook friends through archived posts on their timelines. Participants revealed many attributes they used for comparison that further explained how they engaged in online comparison, including comparing musical opportunities and awards, job opportunities, and musical performances.

Facebook as a professional SNS emerged as a significant theme in the qualitative data. Some participants said they started using Facebook as college students because professors and administration used it as a communication tool. Because participants used Facebook as a professional networking site, as they progressed through school they often connected with more colleagues in music education, became their friends on Facebook, and thus increased their Facebook intensity. Facebook intensity was highly correlated with social comparison; this evidence supports the finding in the quantitative strand that 43.10% of first-year students

rarely engaged in social comparison on Facebook—over double the percentage of students in any other year of school.

Participants in the quantitative strand indicated that they often thought about how they presented themselves as a musician or music educator on Facebook, which was confirmed by participants in the focus groups. The mean score (M = 3.08) on Question 3 of the Facebook Social Comparison Scale that directly measured self-presentation was the highest among all questions of the scale, indicating that professional self-presentation on Facebook is a salient element of online social comparison for music education students. The qualitative data supported this finding. Several participants referenced a desire to present positive images of themselves on Facebook out of concern for their professional appearance. Relatedly, one participant brought up the unwritten rules that guide Facebook interactions:

> I'm actually kind of bad at social media. I don't understand the unwritten rules. Like, I didn't know that whenever your friend posts, like, a prom pic, you're supposed to go and like hype her up in the comments. Like, I didn't understand that.

Their statement confirmed the rules of Facebook engagement posed by Bryant and Marmo (2012) and corroborates the positivity bias of SNS platforms described by Reinecke and Trepte (2014). The data lend credence to the notion that music education students engage in online social comparison and suggest that Facebook may be the preferred online platform for professional comparison.

During focus groups, I observed that participants often described how they compared themselves to others on social media platforms other than Facebook. Individuals often mentioned Instagram in both focus groups. Specifically, participants described "spam" Instagram accounts that peers maintained in tandem with their "main" accounts. They

perceived that peers' main accounts contained primarily positive images of vacations and accomplishments, while spam accounts were more private, harder to locate, and often expressed more "real feelings." Given this information, it is plausible that the quantitative data does not represent the intensity of online social comparison experienced, as it was specific to Facebook.

The relationship between online social comparison and IP was observed in both the quantitative and qualitative research phases. Analysis of the quantitative data concerning Research Question 4 revealed that Facebook social comparison predicted 13.3% of the variance in CIPS scores and emerged as the only significant predictor among the entered variables. This finding contributes to the growing body of evidence that links social comparison to IP in children (Chayer & Bouffard, 2010), graduate students (Fraenza, 2016), and university faculty (Guillaume et al., 2019; Hutchins & Rainbolt, 2017) by confirming similar relationships in undergraduate music education students. Although causality cannot be inferred from the quantitative data, participants in the focus groups provided some evidence for the direction of the relationship between online social comparison and IP. Like the faculty members in Guillaume et al.'s (2019) study, participants identified social media as an agitator of IP. Alyssa stated:

> I feel like just naturally, as people, and especially musicians, we use other people as gauges, you know, as to how to, like, I'm doing this good compared to this person compared to this person . . . And I just feel like social media, just really has heightened that and our experiences with it . . . If social media didn't exist, we'd only hear each other [in person] every so often. But with social media, we have, like, unlimited access to listening to them . . . because we can just keep replaying it.

As reflected in the qualitative themes, multiple participants reported reducing social media use as a self-care strategy to mitigate impostor feelings. Together, findings supported that online

social comparison may lead to impostor feelings.

5.2 Implications and Reccomendations

The prevalence of IP among music education students and its relationship to online social comparison has multiple implications for music education students and those who support them. For some, the stress associated with IP may manifest in physical symptoms such as headaches, stomachaches, and muscle twitches (Clance, 1985). In addition to the clinical symptoms of anxiety, lack of self-confidence, depression, and personal frustration first identified by Clance and Imes (1978), research has revealed negative relationships between IP and career development (Neureiter & Traut-Mattausch, 2016), and between IP and burnout (Nápoles et al., 2023; Villwock et al., 2016). Individuals experiencing IP may experience increased burnout, might lack the motivation to seek career promotion, and may abstain from serving in leadership roles. Music teacher educators should recognize impostor feelings in students and target individuals experiencing IP with opportunities for leadership. Clance (1985) describes that for many impostors "the fear of failure is so great they underestimate their talent and intelligence, and they aim for goals that are far below their capabilities" (p. 72). Structuring leadership experiences into the music teacher curriculum may provide opportunities for victims of IP that they would not seek of their own volition. Psychologists have recommended that those seeking to support victims of IP use strategies such as validating doubts and fears, directly addressing concerns of failure, and recognizing IP in a group setting to combat feelings of isolation (Matthews & Clance, 1985). Harvey and Katz (1984) agreed that simply naming the phenomenon and talking about it with others is the first step to overcoming IP. It is important that music teacher educators disseminate information and facilitate

discussions about IP. By doing so, music teacher educators may normalize its presence and support students experiencing impostor feelings.

Although the focus groups were not designed as an intervention, several students acknowledged that talking about online social comparison and impostor phenomenon in the group setting helped validate their feelings. As I prompted participants to talk about their experiences, many nodded in agreement and subsequently shared their own feelings similar to those of other participants. Music teacher educators could mimic this model by sharing information regarding the prevalence of IP among music education students and facilitating open conversations in small group settings.

Demographic variables were not a significant predictor of IP in the current study. Still, an examination of the descriptive data suggested several possible differences. Over 93% of participants who were the first in their family to attend college reported frequent to intense impostor feelings, and 80% engaged in moderate to frequent online social comparison—substantially higher percentages than participants who were not first-generation college students. Given similar findings in populations of both undergraduate (Ayesiga, 2021) and graduate students (Sims & Cassidy, 2020), music teacher educators should be aware of the vulnerability to IP in those who are the first in their families to attend college. In her description of special situations that lead to IP, Clance (1985) identified first-generation professionals as a group highly susceptible to IP. She noted that they tend to have substantial guilt about their success because they worry that it will make family members somehow feel uncomfortable or less intelligent. She indicated that finding a successful mentor was an effective treatment for her clients. Given the possible similarity between first-generation professionals and first-

generation college students, it is likely that peer mentor programs would serve as an effective mitigator of IP for those who are their first in their family to pursue a post-secondary degree.

Ayesiga (2021) interviewed first-generation undergraduates experiencing IP who offered several other recommendations for college professors, including creating four-year degree plans during the first year, identifying first-generation students when collecting student information at the start of the semester, and providing verbal affirmations. One participant stated that simply saying, "You belong here. You are deserving of being here" helped to affirm their feelings of belonging (Ayesiga, 2021, p. 124). Research supports participation in student organizations as an effective support mechanism for first-generation students (Demetriou et al., 2017). Because involvement in student groups such as ensembles and performance studios is compulsory at most institutions (Hill et al., 2023), music education programs might be uniquely situated to support those experiencing IP. By emphasizing social connections and mentoring within the structures that already exist in the program, music teacher educators may lessen impostor feelings among first-generation students. For example, experienced students might serve as peer mentors to incoming students. They could share their experiences as music education students, including difficulties and failures they may have experienced as first- and second-year students. Through open dialogue about their educational journey, more advanced students can provide context to younger students' successes and failures that help to mitigate younger students' feelings of fraudulence. Additionally, establishing student-led groups specific to music education, such as collegiate NAfME chapters, may create communities of support that increase feelings of belonging for students.

Before encouraging participation in Facebook groups, music teacher educators should

consider the relationship between online social comparison and IP. Several participants in this study noted that they joined Facebook after starting college and were using it because it was the primary method of communication for some programs required by the music degree. Indeed, in this study, first-year students were much less likely to engage in online social comparison than all other groups. Participants often referenced Facebook pages created for ensembles and other co-curricular student groups as the reason they joined or continued using Facebook. It may be helpful to consider alternative methods to communicate and build community within the collegiate music education program that do not force students to use SNSs. Widely used tools such as the Canvas learning management system provide online environments to engage in academic tasks without integrating popular social media's personal and social aspects. When possible, using academically focused online tools that minimize opportunities for online comparison in place of social media sites may mitigate impostor feelings.

The long-term consequences of IP on music education students' well-being and career development are unknown. Learning to recognize students who are at risk, the common symptoms they present, and strategies to support them is crucial for music teacher educators. However, it is vital for both the impostor and those working to support them to understand that severe IP may require the intervention of a mental health provider.

5.3 Limitations

There are several limitations to the current study. First, the sample represents a population of a large, highly competitive music education program within a single institution and is therefore not generalizable to all undergraduate music education students. It is possible

that students in this environment do not experience IP and social comparison in the same way as those at other institutions. Only one participant reported a CIPS score that fell into the "few" impostor feelings category. Therefore, neither the quantitative nor qualitative results include data from music education students not experiencing IP. Similarly, the focus groups were comprised of participants who reported that they engaged in online comparison and did not represent those who do not compare themselves to others on SNSs. It is possible that participants at other institutions would have different usage patterns regarding SNSs and therefore possibly different distributions of IP symptoms, and delving deeply into those participants' experiences would yield useful data for the profession.

Additionally, it is important to consider the unique experiences of college students during the spring of 2023 when I collected data for this study. Most participants experienced a significant part of their high school or college education in an online or hybrid format because of the global COVID-19 pandemic and the closure of all public schools in the United States (Decker et al., 2020). Several participants referenced their online education as an explanation for what they perceived as their lack of ability. Others felt that the proliferation of online performances during pandemic closures provided unprecedented access to online performances of their peers, which resulted in increased opportunities for online social comparison. Given the finding that sophomores reported higher overall CIPS scores than all other years-in-school, and that most second-year college students at the time of this study experienced full school shutdowns during their junior and senior years of high school, it is possible that the disruption to their schooling during formative years and transition into college may have resulted in higher levels of social media use, social comparison, and IP.

Third, the sample represented participants from a single institution who primarily identified as White, male or female, and whose focus area was band or choir. A more diverse sample may help to illuminate possible differences in demographic variables. The current sample does not provide adequate data to elucidate potential differences in race/ethnicity, non-binary students, or music education focus areas beyond band and choir. Considering the body of existing research that has observed differences in IP among the relationships of these variables, IP levels among the groups reported in this study are not generalizable.

Finally, the instruments used in this study showed good reliability but may not fully capture the extent to which music education students engage in online social comparison. Although Facebook remains the most popular social media platform among young adults (Kemp, 2023), updated instruments that include other popular SNSs are needed. Additionally, participants may lack the introspective ability to honestly report their conditions in self-reported psychological measures (Salters-Pedneault, 2023). Scholars have observed discrepancies between self-reported and actual Facebook use as tracked by computer software (Ernala et al., 2020; Junco, 2013). Research using software to report social media use may provide a more accurate measure of online engagement.

5.4 Future Research

There are numerous opportunities for research on online social comparison and IP within music education. Emerging research in the field has found that many music education students and professionals experience frequent to intense impostor feelings (Nápoles et al., 2023; Ramey, 2022; Sims & Cassidy, 2019, 2020; Sorenson, 2022). Additionally, aside from the

current study, there is no known research within the field of music education on online social comparison.

The current study included only undergraduate music education students. Future studies might investigate the relationship between online social comparison and IP among graduate students, in-service music teachers, and K–12 music students. Given the finding that Facebook intensity increases with year-in-school and that participants use Facebook for professional networking, a replication of this study with in-service music teachers may provide further insight into online social comparison in the field. Many music educators are members of Facebook groups targeted at specific communities of musician-teachers, such as the "I'm a Choir Director" or the "Researchers in Music Education" Facebook group. Scholars have observed that music teachers use Facebook groups as communities of learning to exchange ideas and build professional relationships (Rickels & Brewer, 2017; Wayman, 2016). Future studies that collect data about social comparison from users in music education focused online SNS groups would clarify the effects of online social comparison in online professional communities.

Additional studies with undergraduate populations outside of music education could provide comparison groups to help identify unique ways music education students might engage in social comparison and experience IP. Other scholars have identified higher IP levels in highly competitive environments such as undergraduate honors programs (Lee et al., 2021). Also, although sample sizes have been small, recent studies (Nápoles et al., 2023; Walker, 2022) have found heightened IP levels in populations that did not identify with binary gender roles.

Future investigations with those who identify as non-binary may help to illuminate the extent to which gender identification affects IP.

McCat-Peet and Quan-Haase (2016) noted that different social media platforms "fulfill different uses and gratifications" (p. 11) and that future research should consider how social media platforms differ. The current study focused on interactions on Facebook, but several participants referenced other SNSs, such as Instagram and BeReal. Because engagement on various SNSs continues to increase, future investigators might consider how individuals engage in social comparison on different social media platforms and to what extent SNSs influence the professional life of music educators. Updated measurement instruments using both self-reported and actual social media use can help researchers to better understand the interactions between social media use, online social comparison, and impostor phenomenon. The positive correlation between Facebook intensity and Facebook social comparison found in this study requires further investigation using methods such as path analysis to determine if there is a direct relationship between social media use intensity and impostor phenomenon or if social comparison serves as a mediator variable.

5.5 Conclusion

Social media research in the field of music education is in its infancy. Recent publications such as *The Oxford Handbook of Social Media and Music Learning* (Waldron et al., 2020) and conferences such as the 2022 MayDay Group Colloquium *Social Media for Good or Evil in Music Learning and Teaching,* provide insight into the need for further investigation. Indeed, with over 4.80 billion social media users worldwide as of April 2023 (Kemp, 2023), it is essential that music teacher educators explore the effects of social media on our field.

Online engagement has expanded the individual's personal and professional networks while blurring the lines between private and public information. The opportunity to compare oneself to others, even those outside one's physical network, is constantly available. The findings of this study indicate that music education students frequently engage in comparison with others in online contexts. Effects of comparison include feelings of fraudulence and inadequacy associated with impostor phenomenon. Mental health consequences may lead to a lower sense of well-being, burnout, and decreased motivation in one's professional life. Music teacher educators should acknowledge the positive and negative effects of social media use on students and implement strategies in the curriculum to mitigate its impact on feelings of fraudulence. Presenting one's best performances and high achievements in an online context often does not reflect the daily work, preparation, and struggle accompanying success. Those in the field of music education must acknowledge the consequences of aspiring to be what they perceive others to be and instead work toward a collegial system of encouragement and support that enhances the profession.

APPENDIX A

DEMOGRAPHIC SURVEY AND FOCUS GROUP PROTOCOL

Circle one for each question:

Gender: Woman Man Transgender Female Transgender Male

Non-Binary Prefer not to respond Not listed:_____

Music Education Focus: Band Choir Orchestra General Music

Year in School: 1st 2nd 3rd 4th 5+

Are you the first in your family to attend college? Yes No

Race/ethnicity *circle one)* Hispanic or Latino Not Hispanic or Latino

Indicate one or more of the following:

___ American Indian or Alaska Native ___Native Hawaiian or Other Pacific Islander

___Asian ___White

___Black or African American

If you would be interested in participating in an interview / focus group to discuss Facebook as part of your role as a music education student, please complete the information below. The focus group will take place via Zoom.

Name_____ Email_____

Focus Group Interview Protocol

Welcome: Introduce moderator

Our topic is online social comparison and impostor phenomenon in music education students. The results will be used to help explain data in the research study you participated in regarding Facebook use and impostor phenomenon. You were selected because you indicated you engage in social comparison on Facebook and agreed to be part of the focus group.

Guidelines: There are no right or wrong answers, only differing points of view. I'm recording the session so that I can review the discussion. Your names and responses will be confidential, and the recording will be destroyed after the research project. We're on a first name basis. You don't need to agree with others, but you must listen respectfully as others share their views. My role as moderator will be to guide the discussion.

To get started, let's go around the room and state your name, music education focus, and year in school.

Opening Question: Can you recall a time when you have seen a post by someone else on Facebook that made you feel worse about yourself as a music education student? Can you describe this ?

Possible Follow up questions

- How did it make you feel?
- You said it made you feel *answer*, how long did that feeling last?
- Did you change any behaviors because of seeing the post or how the post made you feel?
- How did it make you feel about the person who made the post?

Closing Question

Moderator summarizes the discussion then asks:

- Is this an adequate summary?
- Is there anything we have missed?

APPENDIX B

INFORMED CONSENT FORMS

Informed Consent for Studies with Adults

TITLE OF RESEARCH STUDY: An examination of online social comparison and impostor phenomenon in undergraduate music education students

RESEARCH TEAM:

Thomas Rinn
Teaching Fellow, Ph.D. Student in Music Education
College of Music
xxx-xxx-xxxx [redacted]
Thomas.Rinn@unt.edu

This project is being conducted as part of the PhD. In Music Education degree under the supervision of:

Jessica Nápoles
Professor of Choral Music Education
940-369-7203
Jessica.napoles@unt.edu

Thomas Rinn, the student investigator for this study, may be known to you either personally or professionally. Your relationship with them will not be affected by your decision to participate in this study.

You are being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will any answer any questions you might have. It is your choice whether or not you take part in this study. If you agree to participate and then choose to withdraw from the study, that is your right, and your decision will not be held against you.

You are being asked to take part in a research study about online social comparison and impostor phenomenon in music education students. You must be a Facebook user in order to participate in this study.

Your participation in this research study involves completion of a survey that will take approximately 20 minutes. At the end of this survey you will have the chance to participate in a focus group. More details will be provided in the next section.

You might want to participate in this study if you are interested in online social comparison and the impostor phenomenon. However, you might not want to participate in this study if you do not have time to complete the survey.

You may choose to participate in this research study if you are a music education major, use Facebook and are at least 18 years old.

The reasonable foreseeable risks or discomforts to you if you choose to take part may include the potential for breach of confidentiality or discomfort when thinking about your experiences of social comparison or impostor phenomenon which you can compare to the possible benefit of providing valuable information for student learning and teacher preparation. You will not receive compensation for participation.

DETAILED INFORMATION ABOUT THIS RESEARCH STUDY: The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY: The purpose of this study is to explore online social comparison, Facebook intensity, and impostor phenomenon among undergraduate music education students.

TIME COMMITMENT: Participation in this research study will take approximately 20 minutes.

STUDY PROCEDURES: You will be asked to complete a survey with questions related to online social comparison, Facebook intensity, and impostor phenomenon. You may choose to participate in a focus group as part of this study. The focus group will take place via Zoom. The focus group discussion will be recorded by the researcher. At the completion of the study, you will be provided the final report and given an opportunity to provide feedback. Should any of the interview questions make you uncomfortable you may choose to not answer the question. In reporting your name will be made confidential.

POSSIBLE BENEFITS: There is no direct benefit to you for participation in this study, but we hope to help others understand impostor phenomenon and online social comparison. Understanding how music education students engage in social comparison and how it influences impostor phenomenon may assist music teacher educators in addressing the needs of students.

POSSIBLE RISKS/DISCOMFORTS:
This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life. However, if you do experience any discomfort, please inform the research team.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security.

Participating in this research study may involve increased risk of exposure to COVID-19 due to in-person interactions with the research team. The study team will follow local regulations and institutional policies, including using personal protective equipment masks) and social distancing guidelines while those regulations and policies are in effect. If you have any questions or concerns, please discuss them with your research team.

If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, emergency mental health support is available 24-hours a day via the UNT Mental Health Emergency line at 940-565-2741.

COMPENSATION: No compensation will be offered for participation in this study.

CONFIDENTIALITY: Efforts will be made by the research team to keep your personal information private and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored on password protected computer in the principal investigator's locked office on the UNT campus and/or a secure UNT server for at least three 3) years past the end of this research. Research records will be labeled with a pseudonym and the master key linking names with codes will be maintained in a separate and secure location.

The results of this study may be published and/or presented without naming you as a participant. The data collected about you for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA federal regulating agencies), the reviewing IRB, and sponsors of the study.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Thomas Rinn, 817-681-3612 or Jessica Nápoles jessica.napoles@unt.edu, 940-369-7203. Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

CONSENT:

- Your signature below indicates that you have read, or have had read to you all of the above.
- You confirm that you have been told the possible benefits, risks, and/or discomforts of the study.
- You understand that you do not have to take part in this study and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits.

- You understand your rights as a research participant and you voluntarily consent to participate in this study; you also understand that the study personnel may choose to stop your participation at any time.
- By signing, you are not waiving any of your legal rights.

Please sign below if you are at least 18 years of age and voluntarily agree to participate in this study.

SIGNATURE OF PARTICIPANT **DATE**

***If you agree to participate, please provide a signed copy of this form to the researcher team. They will provide you with a copy to keep for your records.**

For the Principal Investigator or Designee:
I certify that I have reviewed the contents of this form with the subject signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

_____ _____
Signature of Principal Investigator or Designee Date

Informed Consent for Studies with Adults

TITLE OF RESEARCH STUDY: An examination of online social comparison and impostor phenomenon in undergraduate music education students

RESEARCH TEAM:

Thomas Rinn
Teaching Fellow, Ph.D. Student in Music Education
College of Music
xxx-xxx-xxxx [redacted]
Thomas.Rinn@unt.edu

This project is being conducted as part of the PhD. In Music Education degree under the supervision of:

Jessica Nápoles
Professor of Choral Music Education
940-369-7203
Jessica.napoles@unt.edu

Thomas Rinn, the student investigator for this study, may be known to you either personally or professionally. Your relationship with them will not be affected by your decision to participate in this study.

You are being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will any answer any questions you might have. It is your choice whether or not you take part in this study. If you agree to participate and then choose to withdraw from the study, that is your right, and your decision will not be held against you.

You are being asked to take part in a research study about online social comparison and impostor phenomenon in music education students. You must be a Facebook user in order to participate in this study.

Your participation in this research study involves participation in a focus group that will take approximately 40 minutes. More details will be provided in the next section.

You might want to participate in this study if you are interested in online social comparison and the impostor phenomenon. However, you might not want to participate in this study if you do not have time to participate in the focus group or if speaking with others about these topics makes you uncomfortable.

You may choose to participate in this research study if you are a music education major, use Facebook and are at least 18 years old.

The reasonable foreseeable risks or discomforts to you if you choose to take part may include the potential for breach of confidentiality or discomfort when thinking about your experiences of social comparison or impostor phenomenon which you can compare to the possible benefit of providing valuable information for student learning and teacher preparation. You will not receive compensation for participation.

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TIME COMMITMENT: Participation in this research study will take approximately 40 minutes.

STUDY PROCEDURES: You will be asked to participate in a focus group discussion related to online social comparison, Facebook intensity, and impostor phenomenon. The focus group will take place via Zoom. The focus group discussion will be recorded by the researcher. At the completion of the study, you will be provided the final report and given an opportunity to provide feedback. Should any of the interview questions make you uncomfortable you may choose to not answer the question. In reporting your name will be made confidential.

AUDIO/VIDEO/PHOTOGRAPHY:
☐ **I agree** to be audio recorded during the research study.
☐ **I do not agree** to be audio recorded during the research study.
You may not participate in the focus group if you do not agree to be audio recorded. The recording will be immediately destroyed after transcription.

POSSIBLE BENEFITS: There is no direct benefit to you for participation in this study, but we hope to help others understand impostor phenomenon and online social comparison. Understanding how music education students engage in social comparison and how it influences impostor phenomenon may assist music teacher educators in addressing the needs of students.

POSSIBLE RISKS/DISCOMFORTS:
This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life. However, if you do experience any discomfort, please inform the research team.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security.

Participating in this research study may involve increased risk of exposure to COVID-19 due to in-person interactions with the research team. The study team will follow local regulations and institutional policies, including using personal protective equipment masks) and social distancing guidelines while those regulations and policies are in effect. If you have any questions or concerns, please discuss them with your research team.

If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, emergency mental health support is available 24-hours a day via the UNT Mental Health Emergency line at 940-565-2741.

COMPENSATION: No compensation will be offered for participation in this study.

CONFIDENTIALITY: Efforts will be made by the research team to keep your personal information private and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored on password protected computer in the principal investigator's locked office on the UNT campus and/or a secure UNT server for at least three 3) years past the end of this research. Research records will be labeled with a pseudonym and the master key linking names with codes will be maintained in a separate and secure location.

The results of this study may be published and/or presented without naming you as a participant. The data collected about you for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA federal regulating agencies), the reviewing IRB, and sponsors of the study.
Please be advised that although the researchers will take these steps to maintain confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Thomas Rinn, Thomas.Rinn@unt.edu, 817-681-3612 or Jessica Nápoles jessica.napoles@unt.edu, 940-369-7203. Any questions you have regarding your

rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

CONSENT:

- Your signature below indicates that you have read, or have had read to you all of the above.
- You confirm that you have been told the possible benefits, risks, and/or discomforts of the study.
- You understand that you do not have to take part in this study and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits.
- You understand your rights as a research participant and you voluntarily consent to participate in this study; you also understand that the study personnel may choose to stop your participation at any time.
- By signing, you are not waiving any of your legal rights.

Please sign below if you are at least 18 years of age and voluntarily agree to participate in this study.

SIGNATURE OF PARTICIPANT **DATE**

***If you agree to participate, please provide a signed copy of this form to the researcher team. They will provide you with a copy to keep for your records.**

For the Principal Investigator or Designee:

I certify that I have reviewed the contents of this form with the subject signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

_____ _____

Signature of Principal Investigator or Designee Date

APPENDIX C

FOCUS GROUP TRANSCRIPTS

Focus Group 1: Friday May 12, 2023

Moderator: I'm going to start this morning by telling you again what this study is all about, and letting us all introduce ourselves to each other. The goal is really just to have some conversations. I want you to know that I'm not looking for specific answers to anything. Mostly what I need is to hear your stories about things, and so, as things come to mind, and there's something that you want to share, feel free to do that, even if you find yourself hearing somebody say something and you think, oh, I really agree with that. Feel free to elaborate and tell your story about why you agree and what's going on. That's the kind of information that we want later for the research study. So, I think you all know me in one way or another. I don't know if you know Nicole, who is up in my top left corner with the headphones on there. But Nicole is also a Phd student in music, education. She's not here to participate. She is just helping me moderate and take notes and then to talk with me about it afterward.

As you know, from the survey you did, our topic is social comparison and impostor phenomenon—specifically how we compare to each other online. I've already analyzed the surveys that you have done, and one of the reasons that I invited you to do this is you all to some degree indicated some sense of social comparison that you engage in, in this specific context which we talked about Facebook. We may talk about more than that today. All of you also displayed some sort of symptoms of what we would call impostor phenomenon. Don't feel like you're out of place. Almost 80 percent of the respondents displayed symptoms of impostor phenomenon, which is really high, but that was what we found amongst the people that we surveyed. So that we all feel comfortable and know each other, would you mind just introducing yourself, telling your area of music, education, focus and what year you are at [school . Can I make you start [participant 1].

Participant 1: But my name is [redacted]. I am a fourth-year music education student, but I'll be taking a victory lap and graduating nest year.

Moderator: Your audio was a little bit funky. So to verify, it was music, education, right, choral , and did you say you're in your 5? (Participant holds up 4 fingers in camera) You're in year 4. Okay, I couldn't hear what you said there. Okay, excellent.

Moderator: [Participant 2], introduce yourself.

Participant 2: I'm [redeacted]. I just finished my first year in choral music education. I'm also a double major in vocal performance. I don't know if that's relevant, but…

Moderator: Everything is relevant! All if good. [Participant 3] introduce yourself.

Moderator: Oh, [redacted] froze

Participant 3: So I don't know . . .

Moderator: Oh, there you are! You moved again!

Participant 3: Hello?

Moderator: There you are! Okay, you're moving again. You just froze up for a second.

Participant 3: My name is [redeacted]. I just finished my first year of music education for the band track.

Moderator: So, as you know, from the survey. It really focused on your Facebook use. And we talked about that a little bit. We did the survey, because that's the biggest piece of social media that we all engage on. We will use that as context, but also, if things come up when you're thinking, "I do this beyond Facebook" I want you to feel free to share those sort of things, too. So, the first thing I'm going ask you is just to talk about this a little bit, and so can you think about a time that you have seen something on social media, on Facebook's particular that made you feel better or worse about yourself as a music education student. Is there any specific situation that you can talk about or describe? And we'll just let the conversation emerge from there. Anybody have a thought? I see [participant 1] smiling.

00:04:31.110 -->
Participant 1: Yeah, I was actually explaining this just a couple of weeks ago. This person I knew from high school. We didn't go to the same high school but we were from the same area. They just finished their degree in music education and are going straight into grad school in choral conducting. I was like *makes a shocked face* - was like, one kind of like shocked, thinking oh my gosh, they are so far ahead, we are the same age but they are already pursing graduate studies, that is crazy! And then, that just made me feel like really behind. [Graduate school] may be something that I want to do in the future *pauses*. What does that mean for me? What does that mean for my journey? So that's like the latest example that comes to mind.

Moderator: Sorry I muted myself because I was afraid, was getting feedback from that way. I'm getting a little bit of weird audio. I got the end of what you said, but right at the beginning what did you say? Specifically, you saw on on Facebook before?

Participant 1: I saw someone I knew from the same area where I'm from who is just graduating this spring and then going straight into their master's in choral conducting in the Fall….so….

Moderator: Got it, I understand. So just seeing somebody in it, especially someone that you are familiar with, and relate to immediately going into that

Moderator: Anything from you, [Participant 2] or [Participant 3] that you remember, that you could talk about?

Participant 2: Yeah, I actually really recently I see a lot of like my peers and my friends getting jobs, teaching voice lessons and singing in church choirs and doing all of these music-related

jobs, whereas I've kind of I've had jobs in like the aquatics recreation realm for the past, God, like 3 and a half years because that was - That's what makes me the most money, so I can pay for this. But at the same time I feel like sometimes I'm doing a disservice to myself by not getting a music-related job. And so there is a lot of conflict there, and it kind of makes me feel like. Am I doing the right thing?

Moderator: That makes sense. Do you feel like you see more of that because of social media, or because of Facebook. Or how do you get that information in other ways to?

Participant 2: Yeah. I see a lot of it through Facebook I do see, like, Obviously, around the music school. I hear a lot of it be like, oh, I just started any job. I got a new church job, but I do see a lot of it on Facebook, people being like I love my church job family, or like I just started teaching lessons. If you want. If you have kids interested. Yadda yadda Yada, all that kind of stuff.

Moderator: It makes sense. [Participant 3] Do you have anything you want to share. It's okay. If you don't.

Participant 3: The same way as [Participant 2] I see people like oh, they're getting jobs but also like I see people who have the time to like to participate in like competitions or for master classes which is something that I do want to do later on But I know, like in terms of my skill right now like that's not something I should be worrying with right now. And it's like not something I can focus on, because I just need to like, I need to work because I need to buy a new instrument.

7:54
Moderator: Right? That makes sense. So when you see things like that, can you think of does it make you sort of change in any way, like what you're doing? Does it make you change your actions? Because you saw that, like, for instance, like [participant 2], you said that you see people getting jobs within music? Has it made you like try to pursue that or change your actions? No.

8:15
Participant 2: Yeah, I've actually, I had a friend approached me like being like, hey, we need an alto. And I was really, really close to auditioning for it. Because I was like, this is, you know, because of like the outside pressures I was like, Oh, I'm a music student I wanted - I should, I like should get a job in music. Like, while I'm in college, that's like the expected thing to do, I should do that. But then I came to the conclusion, the church was really far away, I already like I already have two other jobs and that wouldn't have been the best choice for me. But those pressures of like, you're in music school, you need to have a job related to that made me almost do it.

9:04
Moderator: That makes sense. [Participant 1] when you were like looking at that other student that was going into graduate school, like were your thoughts like, oh, you should be doing that,

or what did your did that make you feel about that?

9:15
Participant 1: Well, my thoughts were immediately like, I need to reach out to my high school director and to be like affirmed, you know what I mean? She's definitely like, a person that I always go to…*distorted audio*… Because that's what teachers want to remind the kids that they're loved and that they have value. Anyway, it's just kind of like, Oh, my God, like, this person that was in the same social sphere as me is pursuing these goals. And like, it was just sort of feeling like *hesitates* a need to do something if that makes sense.

10:06
Moderator: Yeah, that makes sense. It makes total sense. I noticed that both of you are talking about always really looking and comparing to people who were sort of like you. Like the same age or you knew them, something like that. Is that where you feel like the this happens the most? Or do you ever look at like, people that are older than you or teachers out there doing things and feel anything about that?

10:29
Participant 1: Well, sometimes, for sure, like, there are things that I see that I'm like, Oh, my God, that's a lot. I could be doing that. But I think in the same way, though, like, I see someone who's a different age than I am, I'm like, immediately, I'm able to kind of put that on a place of like, Oh, they're in a different stage of learning. There's, like, I see you. And I'm like, I'm not like, oh, my gosh, I need to get my PhD tomorrow. Yeah. That's just part of understanding*distorted audio*…. And also, in the same way, like, I look at you [participant 2] because the past two summers, like, I worked at a summer, disability rights, doing music, sort of, but I really didn't focus on like, that made me feel behind. But I'm like, this other thing that you're doing it also helps me learn things - But it's like, it's a little bit of both.

11:39
Moderator: I think those are all kind of normal feelings that we end up having. So it's interesting to hear you all talk about it, and how it works. I wonder when you're seeing what people post, do you have any thoughts about the reality of what they're posting? Do you feel like people are showing their true selves? Are they only sharing positive things? What is your view on that? Or do you have any thoughts about that?

12:05
Participant 2: I think we all like, because people only do post the good things most of the time. And we're like, oh, my gosh, they're doing all of these good things and forget to step back and realize, you know, they're they have ups and downs. They're just sharing what the good parts are. And it's hard. It's easy to forget that and look at all of their accomplishments that they're posting and be like, well, I haven't done like any of that, I don't have all these accomplishments to post. It's <u>really</u> easy to do that.

12:42
Moderator: Yeah, that makes sense to me, too. What about does it? Does it change the way you view the people who are posting Do you have does it? Like if somebody is posting about all their accomplishments? Does it make you have any thoughts or feelings about them?

13:01
Participant 1: I think there's a certain aspect of jealousy that's really unhealthy that all of us feels or at least me… and that's unfortunate, because I don't want to be like anything else *distorted audio* That I know as a good person. But I can't help put feel a certain amount of inadequacies by their posts, and then that makes you kind of like, it kind of makes you try to like diminish this person. Be like, oh, well oh, well, this is what was happening when they did this or like, obviously you know, that's just not there. You should celebrate the achievements but when we don't like share our downfalls and stuff like that try to be supportive through that. It just tempting to this kind of like toxically positive echo chamber of 'look at what I've done'….

14:21
Moderator: Have any of y'all ever really observed people sharing things that aren't positive?

14:30
Participant 2: Not on social media. We you know, like you have moments with your friends, where you talk about really like deep stuff but I've never seen it on social media where someone was like, I didn't get this but like, or I didn't get this role or this job or whatever. But you know, life keeps moving forward. You don't really see that.

14:56
Participant 1: I think I've seen kind of a shift towards more realistic posts specifically on Facebook. Like, as you get older and the College of Music Experience gets more and more intense, like, I admit like I struggled mentally, academically, all of the above, and, like, there are other people that have shared on Facebook, and I like see that and I'm like, that's real. But I've never necessarily taken the risk to like put that out myself.

15:38
Moderator: Talks about that more, why do you call that a risk to be authentic about failures?

15:47
Participant 1: Oh, this is like therapy! If I if I show that I'm struggling with something, then that kind of takes away some of the facade of this perfect image that I try to make myself appear to be.

16:10
Moderator: Do you feel like you are a high achieving musician?

16:21
Participant 1: I think that other people think so.

16:28
Moderator: That makes sense. So you know, when we talk about impostor phenomenon a lot about a lot of what it is, is that we are very high achieving at what we do, but we don't feel that way. Even though other people might. That is by definition, what impostor phenomenon is!

Participant 1: But they are wrong! *laughing

Moderator: Right? No, I 100% understand that. I don't want to cut anybody off so feel free if there's anything you want to say to jump right in and do that. So we asked a lot about Facebook, but do you feel like there are other things that calls this for you or other types of social media or outside of social media? What other things do you use to compare yourself with others?

17:20
Moderator: I know you're thinking maybe a better way to say that if I were to ask these questions… A lot of what I asked you on the other part was about as to how you did this on Facebook? Or how did you do this? And some people would say to me, Well, I don't really use Facebook anymore. Is there something else that you do use? Or do you just don't engage in that way?

17:46
Participant 2: I actually see a lot on I just remember this on people's like spam accounts on Instagram. They, like people have their this is like a, I guess you could say a trend where people have like their main account, where they post like, oh, I went on vacation, or I just got into college or whatever. And then they have a separate account that's normally like, kind of harder to find. Maybe it's not like just their name, it's harder to find, and certainly private and they post like random pictures throughout the day and then say more like real feelings. And this one kind of goes back actually, as I'm talking I realize it goes back to the one before. That's kind of where people are like, it was a hard day or like this week is kind of killing me but it's okay.

18:46
Moderator: So you're saying they do that on their fake accounts more than they do it on their real when

18:51
Participant 2: it's not a fake account? Like it's like you know, it's that person, but it's a private account. And they are very more selective on like who they let in or who they like accept to follow them so it's more like your close friends that you also like actually seeing in person than just like oh, I went to high school with you and now you're following me on Instagram cool….It's not like that.

19:17
Moderator: I understand that I was trying to understand I'm I am not an Instagram user so I was trying to understand how that worked for you all. Nicole was going to explain spam

account…this is why we keep Nicole around. She's a lot younger than me. She understands those things. What else am I missing in this? Is there anything else that you want to that you want to share about the way you engage or talk about?

Participant 1: There is this BeReal app. Yeah, So they take them once a day, like pictures front and back camera. One of the things that I've noticed about BeReal, is like, there'll be people that post and I'm just like normally a very curious person, or about like the people who are in their life. And so people will post that they're like doing something involving music. Or like, they're like on stage on a post or something and I'm like *makes faces as if they are looking at something with curiosity* and I'm like, 'where are they? we didn't know about this, what's going on?' And it's not like, like, they've got an opportunity that I didn't, it's just like, Oh, they got a different opportunity. But like, with BeReal, with them posting that, it's like more of an immediate snapshot of what's going on. And it's also with like no context really, like, that can definitely make me feel inadequate.

20:57
Participant 2: I have a same kind of thing with Bereal. BeReal, will go off at whatever time of day and then like, people start sending those in, I guess. And I'll see like, someone's in a practice room, and I'm like, I'm just sitting in bed, I should get my ass up and go practice. And it's kind of like that, like, Oh, what am I like, what am I doing, I'm just like, sitting here doing nothing. I should go practice I should go, be productive. But whenever I'm like sitting in bed, that's kind of like the only time I have to stop and like not do anything. But I still get that feeling like, oh, I should be doing something I should be practicing, which is like the equivalent of like, studying, you know, but for voice. Like, I should be bettering myself studying more doing whatever.

21:52
Moderator: I'm wondering, I was just thinking, as you said that, I wonder if this, you know, we kind of have this idea of having to be busy all the time and working in order to be successful at what we do. Well, I'm getting head nods now. So you that sort of thing, because it's in your face all the time, as it make it feel like everybody else is, is busy all the time, just because that's what they're sharing. Yeah,

22:16
Participant 2: The only time you see be reels of people in bed is when it goes off at like 9am. And people are literally still in bed. Otherwise, like, a lot of the time during the school year, you see people in class, or you see them inquire a lot. Because I mean, that's where it goes off, you know, but it really does kind of give this phenomenon of like, everyone's always doing something.

22:42
Moderator: Got it, that makes a lot of sense. I don't have any experience with be real at all other than when I ended up on someone's in my work telling me about it. So I'm still learning about that.

22:55
Participant 2: I can show you mine. I actually took it while I was yesterday. *holds phone up to camera* But um, it's like what it is, is it takes a picture of your side. And then like, literally like two seconds later, it turns around to the back camera, and takes a picture of whatever that's showing. And you can add your location. So like mine was like I was at the Rec of grapevine. And then you could add a caption or like something like that. And then you can literally see everyone that you follow. And it's another like scrolling app.

23:39
Moderator: Sounds like a lot even that and when y'all are describing how you use social media is would you say that you a lot of it is just sort of scrolling through and observing versus actually interacting with people on that. Like when you're comparing yourself is it mostly just like I saw that? Are you actually engaging with these people?

23:59
Participant 2: For me, 100% I I'm actually kind of bad at like social media. I don't understand like the unwritten rules. Like, I didn't know that like whenever your friend posts like a prom pic, you're supposed to go and like hype her up in the comments. Like, I didn't understand that. And so I just kind of like I look, whenever I'm on social media, I look and I read but I don't like I'll like it because I've realized like that's what you do to be nice. But I don't really like comment or do any of that or like share it or whatever. I just kind of look at it and then like internalize those feelings the whatever the feelings I have about it are

24:49
Participant 3: I don't really use BeReal that much just because like Oh, whenever it goes off I'm sure she's doing the same thing over and over again. So I like that's too boring, so I just stopped using it. But back to Instagram, something that I've noticed that I've been doing more often is that I keep following a lot of like practice accounts. Or they're like, people are just posting like, things they're working on or practicing, like clips of them getting ready for a recital competition or piece they're working on. And like, it's like a tempo and it's like, performance ready. And like, it's like different ages before, like, who are older than me. People are, that are my age, people are younger than me. And they're, like, just all better. And like, there always seems like they're practicing or doing something. And so then it just forces me to like, practice. And like, I don't really mind, it just, it also gives me a check, I need to practice. But I feel like it's sometimes to a point, I'm like, am I going to be practicing too much.

25:46
Participant 1: There's the aspect of like, Instagram reels that like if you click on one thing, and then you keep swiping, it's like a related video to that same concept. And like, like we used to get in Doom scrolling of like, oh, the world is ending, like, climate change, like I've noticed in the past, like years, so I'll get in doom scrolls, where I just see people like, like, incredible musicians, just like recording things a lot of times is jazz people. And I'm like, Oh, my God, like they're on a totally different level. And, or, like, it's people singing, and it's people my age, like, doing incredible things. And like, you know, I keep scrolling. And then that kind of gives me instead of

like, acting necessarily in that moment, it puts me sort of in like, a, like, pit of such anxiety. And then, like, I ended up sitting there going nothing, which is even worse. That's some of my experiences on Instagram.

26:55
Participant 2: I have like the same thing, I kind of stopped following a lot of those practice accounts. Because like, whenever I look at someone like [participant 1], I expect her to be at a higher level than me because she's at a different stage in development, like her musician, Journey is at a different stage than I am. But I start looking at people my own age, and I'm like, wow, they're way ahead of me. What am I doing? Why am I not there? Or I look at people, like on the flip side, I look at people that are my age, and this is me being really vulnerable, but I'll look at people my age that are not on the same level. And I'll be like, What are they doing? Like, why are they not? Are they just not practicing, like what's going on? But it's, I find it most with people my age, because whenever you see someone younger or older, you expect them to be at a different, like level of development or skill, I guess is what you could say. But you look at people your own age that are a lot better than you and you're like, Wow, am I like, Am I doing something wrong? Am I just not like as naturally talented as them? And then that creates a whole cycle.

28:08
Moderator: I'm glad you said that. I was thinking I was about to ask do we ever have the opposite effect? Do you ever look at what somebody is doing and it makes you feel a little bit better about yourself and how you are doing things?

28:25
Participant 1: Well, it's not even that. But sometimes it's like if they've seen someone that is maybe supposed to be on a higher level than you like someone pursuing graduate work. And you're like, oh, that's something that I could do. You know, like, that just naturally, like makes you feel better about yourself? Because it's like, okay, but you don't even think about like, okay, are they like, what aspect of this where they shine? And also like, is it truly an accurate representation of their studies and like what they're capable of?

29:02
Moderator: That's interesting. Do you do any of you feel like being in music school and being in college? Has that kind of major social media changed from maybe when you were in high school? Or like, the things that you see is different now?

Participant 2: Yes!

29:14
Participant 1: Yes. Like say, like, when I graduated high school, I maybe had like 200 friends on Facebook max, all like family and friends, people that I knew, like, now as a senior, I have over 800 And those are, like, I can guarantee you that like 500 of those like 600 that I gained are all professional. Like, it's kind of crazy because like of how centered, especially the coral world is,

on Facebook, that like you're kind of just expected to participate in it and you definitely do to certain extent, and that just kind of depends Like, but then, like, I mean, I see people that have like 4000 friends on Facebook, and I'm like, Oh my gosh, like, but at this rate, like, if, if there's exponential growth, I'll get that in like five years, which is more fun to think about. But it's definitely like very like, My Facebook is almost entirely professional. I think of it almost as like, a more wholesome LinkedIn. Because I can show that I'm a person. But like, I'm like, Oh, let me make sure that like any principal that would be looking at my Facebook, like during an interview is like, Oh, she's a good person, but she also is successful. You know?

30:51
Participant 2: I remember I went to choral fest, my senior year of high school, and I was meeting all these people. And they're like, yeah, if you ever have questions, just like, message me on Facebook, like, here's my Facebook, and I'm like, what, like, Y'all are my age, and you're using Facebook? And now like, I actively use Facebook, like, I feel like, I kind of feel like my mom, I'll like scroll through Facebook at the end of the night, and see people's like, jury videos and departmental videos, but um, it's really become like, like, Instagram is where you do like, you're kind of like, Oh, I'm a teenager, I'm in my 20s. Like, I'm going and doing like vacationing and like, maybe partying or whatever it is that you do. And then Facebook is kind of like, I went to TMEA, I bettered myself as a musician. Here's my jury video, here's my departmental video. It's kind of more like that. And it's still like, personal. And it's still like your own experience. But it's just kind of like departmentalizing different parts of your life until like, Facebook is more like professional at least this is my experience. Facebook is more professional and Instagram is more personal.

32:02
Moderator: Would you agree with that? [participant 1 and participant 3] I've heard several people kind of say that in the process of doing this?

32:14
Participant 1: Yeah, I would say in the most recent years, Instagram. Stories are good.

Moderator: I'm going to ask one more thing, and then get wrapped up here. Just because you've really brought up that there's this professional community and you start making all of these professional friends on Facebook, that may or may not be people you know. Does it? Or I guess does it is the right way to ask this question. Does it form your opinion of some of these people as professionals, even people that you don't know? Do you sort of form this in your band or choir orchestra world? Does their presence on Facebook make you have opinions about them as a professional?

33:15
Participant 2: It does. Cuz like, I don't know, I actually I think a lot about [redacted] Facebook. He always like posts like, oh, I wouldn't click this choir. Oh, my choir just did this like, and that's great. And it makes me like, form these opinions. Like, obviously, I know him in real life. But like, he's a really, really hard working choir director. He loves what he does. And he works really

hard about it. That's kind of what I get from his Facebook.

33:48
Moderator: I was just curious how that affected you all. So I think And sorry, [participant 1] were you about to talk? Go ahead.

33:54
Participant 3: I would say like, sometimes it does, definitely. Or like, people will, like surprise me in ways, you know, because we all have like our preconceived notions of like what a kind of musician might want to pursue, especially in college. But then as we move away and move into the professional world, like you see them having these achievements. It's definitely like, it's definitely different. And yeah, I don't know, I don't know how to describe the difference, but I think it definitely does have an impact.

34:38
Moderator: Great. Just to summarize a little bit then and we'll get it wrapped up. So the things that I really am hearing from you all, there seems to be as you get engaged in the music profession, and as you get a little bit older through the programs you seem to be describing that you engage a little bit more especially on Facebook, whereas the other social media has been very So for you, Facebook kind of becomes this professional thing that you engage in more as you go through school. Let's see some head nods there that aligns with what I looked at when I analyzed the data from what you did before. So that makes total sense to me that do that. I also hear you talking a lot about I think what you're really describing is feelings of jealousy in some ways by watching other people's, some of it is jealousy. And some of it is, gosh, I'm not as I'm not good enough sort of things. I should be doing more through that as you look at what other people do. And then I also heard you say a few things about sometimes you ask what makes you makes you feel better. Is it a correct summary to say that it's you do more of looking and kind of feeling bad about what you see than you do a feeling better? Or those sorts of equal? I see head nods from everybody, like you definitely lean towards the side of I'm looking and gosh, they're doing better than me. *confirms head nods. That that would also make sense. Is there anything that I've missed that I haven't asked you about that you want to share about those experiences? No, that's great. You've given me some really good stuff. You have said there's some quotes that I can already tell there's some things that you've said that are going to end up being quoted verbatim. Everything will be anonymous, nothing will talk about who you are. Usually, if I use names and something like this, I assign you all pseudonyms and things. A lot of what you said really lines up with what the data was that you filled out on the surveys too. So that makes sense. And it helps us understand it more. If you think of anything after this or just want to share anything with me feel free to email or get in touch with me. I'm happy to talk to you more. But I really appreciate you taking time with us today and going through all of that and sharing some of your ideas. All right, friends, that is all I'm going stop recording and y'all have a fantastic weekend. Thank you. Thank you. Thank you. You're helping me!

Focus Group 2: Monday, May 15, 11 am

0:03
Moderator: Okay, so here's the goal this morning, we'll spend probably about 45 minutes, maybe slightly more, slightly less. You know from the work that you did already on the survey that what I am looking into is talking to people about how we compare ourselves to one another in the context of music education, and what kind of effects that has on us. Specifically, what that looks like, for impostor phenomenon. I know we talked a little bit when I gave out the initial surveys, it's just the idea that probably you're very capable and good at what you do and many people probably think that of you. But, you may not feel that way about yourself. The people that I invited to participate in the focus groups, all from the instrument that you filled out, showed signs of both of those things. You showed that in some instances, you are engaging in some sort of comparison in that way and in some way, you're also showing signs or effects of impostor phenomenon. Also, you're among friends, because nearly 80% of the people—I had about 150 people do my initial survey and almost 80% were showing fairly intense impostor phenomenon symptoms, which is a really high percentage of people. But we kind of expected that within the context of what we do. So specifically, then the idea is to see how we engage online and if that affects this at all. So my goal today is just to talk about that a little bit that and hear what's going on. I want to start this morning, most of you, it tends that I seems that I have all the choral people this morning, mostly, so a lot of you know each other from that. [participant 4]'s raising his eyebrows. If you can just really briefly introduce yourself by saying your name and what your focus area is and maybe what year you are in school, just to remind me. There is no really organized way to do this via Zoom, so since I know your names, I'm just going to kind of go from that way. [Participant 1], will you start for me?

2:18
Participant 1: Hey, guys, my name is [participant 1]. My focus area is choral music education and also now vocal performance as of a few days ago. So yeah,

2:30
Moderator: That's great. That's good. [participant 1] you just finished year 2, is that right?

2:36
Participant 1: Yeah, but I definitely will take more than four years. So….

2:40
Moderator: Welcome to the music degree. It's a good time. [Participant 2]

2:43
Participant 2: My name is [participant 2] and I my concentration is choral music ed and vocal performance, and I just finished my first year. Thanks, [participant 2]. [Participant 3].

3:03
Participant 3: Hi, everyone. I'm [participant 3]. Can y'all hear me okay.*thumbs up from

participants* Okay, cool. But I am focusing in choral music. And I just finished your for going on to your five…still got a minute. Welcome to transfer life.

3:22
Moderator: Yeah, sometimes it takes a while. All good. [participant 4], are you still in Chicago this morning?

3:30
Participant 5: I'll be in Chicago and so I'll probably second week of next month. So, I'll be here for a bit. Not, complaining. It's not as hot up here. So. But anyways, yeah. If you can't see on the screen, my name is [participant 4]. I am not a choral musician, as a matter of fact, I am a trumpet player *holds up trumpet to screen* . So I seem to be the outlier this morning. But anyways, so this is so this is my I just finished my first year here at UNT Music Education major. But this is actually my this is actually going to be my fourth year in college. I just transferred from community college. So, yeah, transfer life.

4:13
Moderator: I get it. I transferred in the middle of my undergrad to understand. [Participant 5], introduce yourself.

4:21
Participant 5: Yeah. My name is [Participant 5] and I am a choral music ed person. And I just finished my second year so two more to go. Hopefully because I am on track.

4:32
Moderator: Perfect. I couldn't remember what year you were. Thank you for that. [Participant 6]

4:38
Participant 6: Hi, I'm [participant 6]. I'm a going into my fourth year of music education and vocal performance. I'm also doing a minor in music theory. So yeah, that's my life.

4:55
Moderator: Even those of you I know I'm learning things about you. [Participant 7]

5:00
Participant 7: Hi, my name is [participant 7], I concentration is choral music ed, and I'll be going into my fourth year.

5:05
Moderator: Great [participant 7]. And finally [Participant 8], down on the bottom of my screen.

5:10
Participant 8: Hi, my name is [Participant 8], I just finished my first year at UNT, and I'm a choral

music education major.

5:16
Moderator: Perfect. Thanks. So it will be relatively casual today, I'll try to make sure and I'll keep my eyes up to if you're trying to, like get a word in. Feel free to unmute and talk in any place, you don't have to wait only. But also, if you're trying to get in and you can't, if you just stick your hand up, I will get you. So where I'd like to start with you this morning is to really think about your context of what you might see on social media. I also understand that the questions that I asked you were specific to Facebook. This conversation may go away from that today, we want to talk about that a little bit, that you may also talk to me about other things, it doesn't have to be specific to that, we'll just make sure that I know what we're talking about. There were reasons we asked you about Facebook, but there may be other things that you do this on. So can you think through some times when you have seen something on Facebook and/or other parts of social media that have caused you to sort of compare yourself as a music education student? That may be that made you feel better about yourself, it may made you feel worse about yourself, or, or maybe neutral, but you just did that. If there's anything that you can recall that you did and are specific that you would be willing to share with the group, we'll use that for a starting place. And then we'll kind of see where the conversation goes. Anything come to mind for anyone?

6:35
Participant 8: If no one else has anything to start off, the first thing that I think of is, before I came to UNT actually when like we got the contact information of upfront families or meeting people on social media before we had met each other in person, mostly on Instagram was what had happened for me, I'm sure with many other things for other people. But I didn't know this person, I would see their name UNT in their bio and click on it and then I would see especially it being the spring, it was a time of lots of senior recitals, lots of acceptances, lots of like all graduation parties, and all those kind of things wonderful times to show off your accomplishments as you should, but it was very much showing off accomplishments. And it kind of started before I'd even gotten to UNT. An atmosphere of comparison, like, Oh, I'm seeing all these videos of this person doing this crazy rep at their recital, or they got into a million other places and I didn't or did and that kind of thing. Just kind of almost sizing each other up before we had met. Even if that wasn't really the case once I met them in person.

7:36
Moderator: Can I ask you like how? What kind of feelings are that make you have? How did you feel about that by seeing that?

7:42
Participant 8: Most of it was like connecting it from meaning them on social media or in person. And even without like social media conversations, just seeing profiles. It kind of made me more intimidated of my peers, even if we were at similar skill levels, but seeing the way that they were presented. And not that it was dishonest in any way necessarily. It just was social media. But seeing the way that they're presented on their pages or other people reposting things and

things like that, I think, Oh, 'I'm gonna have to do XYZ to be able to match what they're doing.' I'm going to have to prove myself to them, instead of proving myself to the faculty or my professors.

8:24
Moderator: Awesome, that makes sense. Anybody else want to jump in? Go ahead, [participant 3].

8:30
Participant 3: The first thing that I thought of is award winners. So whatever you see, like on Facebook up, like, oh, this person just won this Scholar Award. This person just won whatever award for future music educator, you know, whatever the case may be. And a lot of them don't I don't feel like it makes me like, I have to be better than them. It makes me think, Oh crap, should I be doing that too? Like, I think I'm like, oh, man, I need to catch up because I missed something along the way of I should have been doing this a long time ago. But now I'm behind. Is it too far gone for me? Have I missed so many opportunities by missing that? That's usually what goes through my head whenever I see other things like that of people sharing their accomplishments and whatnot. It makes me think, Oh, crap, like, Did I miss something? Is there something that I should have been doing along the way?

9:20
Moderator: Super helpful. [participant 4], was your hand up a second ago. Were you about to talk?

9:24
Participant 5: Yeah, I just kind of want to bounce off of what [participant 3] was just talking about. So I don't know how many of you guys were? Well, actually, all of you pretty much were in college during the COVID years. But being a community college, being at a community college, your access to music performances a lot more limited than it is at a place like UNT so when it when everything kind of started to shut down up in Chicago. There was already not a lot of access to music performance. So, my exposure to other people, other trumpet players in my age group was almost completely exclusively through Instagram. And so during the COVID pandemic, when nobody was performing, everybody kind of started migrating to posting videos of themselves playing on Instagram. And so I tried to do the same thing. I tried opening up my own music account and after listening to enough people play, I immediately deactivated that account. Because me being a 22-year-old student, watching people who are like 16, 17, 18 years old, just going into college, playing at astronomical levels, better than what I'm capable of that was it actually, that was actually something that contributed to me dropping out of college for a semester, just because I was like I am, I'm pretty older, I'm an older student, relatively older student, and I'm listening to all these people who are, you know, definitely put a lot more hours into performing than I have. And it just made me feel like I was like, you know, maybe this isn't exactly for me, because there's a lot of people, it seems as though there's a lot of other people who are putting in a lot more effort than I am. And it was, it was a pretty soul crushing time. But yeah, I mean, just going on Instagram every day and seeing, you know, like a

17-18 year old, high school senior playing a flawless interpretation of the Artinian Trumpet Concerto. And then there's me, you know, barely being able to play through basic, basic technical exercises that was like, What am I doing?

11:50
Moderator: That's great information. Those are the those are the sorts of stories we're trying to parse out here and see how that's affecting people. That's really great. [participant 6], I see your, your virtual hand.

12:00
Participant 6: Yeah, I know. And now its not going down. Okay, there it goes. Okay. I think it was just staying up. I wasn't trying to do that. To bounce off what [participant 4] was saying, I think that's a really good point. Because it's something that I've been experiencing a lot recently. As you know, all of my friends are starting to get really, really good at singing and are starting to do all these summer programs and land these like big gigs and auditions and stuff and I was this whole school year, I've been kind of like compromised in like my health. And in like my, my vocal health has kind of prevented me from like preparing for auditions for those kinds of things. And it just kind of made me feel like I'm not doing enough even though I couldn't have done anything at all to like, prevent what I was experiencing with my vocal health. I don't know if that makes any sense. But it's been kind of like just a little like hard to like, know that I have to wait another, you know, year to get into that like cycle. I'm very excited for all my friends. They're doing stuff, but it's just a little. It's a little weird. On this side.

13:09
Moderator: I think those are normal responses. I'm gonna pause for I have somebody else talk just a minute just to [Participant 9] joined us a little bit late this morning. But just saying hello [Participant 9]. What we're doing right now the question I asked was just people are talking about times in which they saw things online that made them compare themselves as a musician. So at anytime that you want to jump in with something, you're more than welcome to add into that. [participant 1], your hand is up there.

13:35
Participant 1: Hi, um, I'm just kind of gonna bounce off what [participant 6] was just saying. I've definitely like felt the same way. I've also been kind of like battling some like weird vocal health things and like allergies that I don't know what they are and like, it's it's tough to like see other people be able to like, go out and do these things. Back in October, I actually deleted Instagram because it was interfering with like, my mental health so much. And I just re- downloaded it once the school year ended. And I will say this is the year that I felt the most, like stable and my mental health after deleting Instagram. The only social media I kept on my phone was Facebook for upfront. And like, I just kind of got rid of everything else. And I felt like more at peace with myself. And it kind of did suck sometimes because I was like, man, like I wish it would I knew like exactly what people were up to. But like, also, I just I felt so much more secure in myself, like not having to go on social media every day and be like, Oh, this person's doing this this versus doing that and like kind of getting FOMO a little bit. But yeah.

14:46
Moderator: Interesting that you said that I laughed very hard when I was doing this research when I found a full fledged scientific research study about FOMO and social media. {Participant 5} do you want to talk?

14:59
Participant 5: yeah, So I kind of have the same thing as all the people who've just spoken. I actually had to unfollow people on Facebook, not because they were like super toxic, but just because they seeing sort of what they were doing was interfering with how I was feeling about myself. And so I didn't like unfriend them. I just took them off my feed. And I filled my feed with a lot of other things that I was interested in. And I was sort of like hoping that that would help my mental health. And I think it did. One of the main things is the beginning of the school year, I was also looking up the people who were coming in to UNT. And I think this is the first time I've ever really felt like competition with anyone else. Because I've always sort of tried to keep myself away from that as much as possible. But like seeing people conducting their high school choir, like as a senior, I never really like got that experience and seeing so many people do that before they came to UNT to like pursue music ed just really like affected me because I'm like, I never got that and seeing these people get that before they're even coming here. And I haven't even taken my first like conducting class. It just really made me feel like inferior to….Like it made me feel like I was missing out on something even if something that didn't really matter anymore that I wasn't out…I was like a whole year out of like my senior year of high school and I still felt FOMO from back in high school. So it was just so bizarre. But yeah, that's definitely something that I've felt.

16:42
Moderator: These are great inputs. It gives a lot of context to the surveys and the numbers that I've seen from all of you all, it helps me understand things a little bit better. [Participant 7] do you want to talk?

16:53
Participant 7: Yeah, so part of this is somewhat like what [participant 4] had said earlier. But what I personally struggle with in social media is seeing people's when they post videos of like a jury video or like departmental, something that is like showing their progress throughout the year. Especially seeing someone like younger than me now, like going into my senior year and seeing like a freshman Post that. Like, obviously, I'm really proud of them. And like any progress they've made, but immediately just makes me compare myself. And seeing like, oh, like I wasn't there as a freshman, or like, Oh, I'm not there now. Um, and I feel like there was a little bit of like grace given to me not only just like as being a freshman, but as being a freshman going into my first year college in 2020 There was a lot of like, extra grace is kind of given that I feel like have disappeared now. And I'm kind of in this weird spot now to just like, compare myself.

18:03
Moderator: I think it is a natural thing that we do, [participant 2],

18:08
Participant 2: I just wanted to kind of bounce off what [Participant 8] said earlier about, you know, seeing people's social media really like as you meet them or before you meet them. And it really just, you know, helps to like contextualize this person in your mind. And I feel like, yeah, it's just like seeing people like post their senior recitals or them singing this and listen to them. It just made me feel behind, you know, of not necessarily of like a Oh, I wish I was better than them. But just like, Oh, I feel behind her seeing, even like upperclassmen post, like what they were posting whenever they were my age. It was literally kind of what Cassie just said, like, seeing what they posted when, whenever they were my age and me comparing myself to me like, oh, well, I'm not good, as good as they are right now. As they are whenever they're my age. I wonder what I'm never going to be as good as they are. Whenever I'm their age. That makes sense.

Moderator: [Participant 5] go ahead.

19:05
Participant 5: So this kind of made me think about something. It's one thing when you see somebody around your age group or even younger than you post something that is just absolutely phenomenal, musically and artistically. It's one person if you've never one, sorry, one thing if you've never met that person, but it definitely hits a lot harder if you know that person. So in particular, there's this one, there's one guy I know who one of my best friends Great guy, great trumpet player. I was a senior in high school, he was a freshman. And when he was a freshman, he was about average, you know, average skill level as any middle schooler moving into high school. But seeing him now because--He's now a trumpet performance major and he was playing in the Chicago Youth Symphony Orchestra and doing all that type of stuff when he was a senior in high school, and definitely seeing him posting his playing now, and seeing his improvement from 2019 to 2023 just through social media was definitely like a 'oh, my god' I did not make anywhere near that type of improvement over four years. Just because I had played with them almost every day in a symphonic band and now seeing is level of playing now knowing him personally and knowing how much he's improved. I was like, Oh, my God. Why couldn't I have done that? You know, what was I doing wrong? What am I still doing wrong?

20:48
Moderator: I'm keep writing down questions. I want to let y'all keep talking. But there's a couple things you've said I have questions about to [participant 2]. Go ahead.

20:55
Participant 3: No, I just wanted, I just wanted to add on to what [participant 4] just said, I feel like just naturally, as people and especially musicians, we use other people as gauges, you know, as to how to like, Oh, I'm doing this good compared to this person compared to this person. Okay, like, I'm doing okay, you know, or whatever that may mean. And I just feel like social media just really has like, heighten that and our experiences with it.

21:23
Moderator: Would you, [participant 2]? This kind of applies to everybody. But or would you say that with you, you wouldn't really know this about these people if it were not for social media? Is that a way to frame that?

21:32
Participant 3: Yeah, I think it gives us like, if social media, if social media didn't exist, we'd only hear each other sing like at departmental or recitals or whatever, every so often, but with social media, we have like, unlimited access to listening to them sing as much as we want, because we can just keep replaying it. And so I think it can get kind of harmful in that way.

21:55
Moderator: I'm going to say this out loud and we'll swing back to it to the other things I keep, if I'm understanding you correctly, I'm hearing a lot of you talk about not just sort of seeing what people are posting currently, but going back, like, don't like going back and looking through their feeds in the past, which is not even something I've considered until you brought it up. That's an interesting discussion to [participant 3], go ahead.

22:19
Participant 3: I think another use that I find with social media and comparing experiences is I find myself like to my non music friends, I find myself comparing myself like to them by telling them like, oh my god, like, look at this person, like, I'm talking to them. And I'm, like, look at them. Like, I don't even know how the heck I got into UNT. like, this is what I'm talking about when I talk about, like, my stuff. And I find myself like trying to prove myself of like, look, this is what I'm talking about, of how I don't belong here. And I find myself doing that a lot with my non music friends, because my non music friends, it's pretty objectively easy to hear, like, oh, this person's good, or this person's not, you know, a lot of stuff doesn't filter through quite the same way that it would for us. But I even find myself with my parents, you know, my, my dad until he came to like a Grand Chorus concert, like, didn't believe me on why I was like having this impostor syndrome at UNT. I was like, Dad, no, this place is insane. Like, I don't know how I got here. And he's like, what? And then he came to a Grand Chorus concert. He was like, I know what you're talking about. Now, the music schools insane here. And I'm like, that's what I'm talking about. Like, everyone's so good here. It's almost like how it first off, how did I get here? Second off, like, how do I continue staying here? I feel like I can't keep up with these people. Especially I can relate a lot to [participant 4] and being an older person. I'm only like, a little bit older than y'all but being in so many different places, and transferring and whatnot, you think man, I have all these experiences, but so many of them weren't musical because they weren't allowed to be at the time or they…I was I was a different major at a different time. And it's just this constant I gotta keep up I gotta keep it up. I gotta keep up and in social media I feel like it's really easy to look at that and compare yourself on those sorts of levels.

24:22
Moderator: I can relate to being the oldest person in the class. I understand. [Participant 5], go ahead.

24:29
Participant 5: So I really related to telling your friends I have a lot of music friends, but they're not music, Ed, their vocal performance. And so I've I remember I multiple times have told them like how did I get in here and like we literally go back and forth and we're just like, how did we get in here? And we're like, we're not this we're not this there's this person who knows better than us all these underclassmen are like miles ahead of what we were and so I've just remember I've gone through so many like Conversations with like, my best friend of both of us were just constantly just like being really down. But we passed it off as like an average conversation, which I think is so sad that we've allowed ourselves to get that much of impostor syndrome to where it's like normal to just chat with your friends on an average day about how much you think you suck and how much you don't think you belong in a music program. So anyways, that's all

25:27
Moderator: I wonder, I see [participant 1's] hand up. I'll let her talk. But I wonder… kind of be thinking… a lot of you are talking about very specifically, because of the environment of UNT. I wonder if there's something about the environment being really competitive, and a really advanced type of place that really contributes to some of this. [Participant 1], go ahead.

25:48
Participant 1: Yeah, so I think something that like has been a struggle for me, like kind of going off of like casting Aidan booth said with COVID. Like, we feel like we're at a different level. But we had so many my walls put up for us to be able to, like, move forward with our progress. And I feel like social media has kind of heightened that because we had this like blip of time where nothing was happening. And then now all of a sudden, we're like, oh, my gosh, we're doing this. And we're doing that and look at me, like I'm posting this thing. And I'm doing this and you're like, why didn't I do that? This like this, unless you're like, Oh, COVID. And like, I feel like, we still need to give ourselves a little bit of grace for that. But it's hard, because we're seeing all these things that are being posted. And I also remember, like, when I first got to UNT I'm pretty sure it was you who told me like you came from, like, where you are big fish in a small pond. And now you're a big fish in a big pond. So we all feel like, we're kind of running to the finish line. And it really gets heightened on social media as well.

26:55
Moderator: [Participant 9], go ahead

Participant 9: Um, hi, I went to to go off what you said about, maybe it is the environment of UNT and like going to an advanced place. I transferred from Amarillo College as a junior. And I think that that does have something to do with it. Because I did not use Facebook, I had not logged into Facebook since like 2017, before I got to UNT and that was for up front for like some like social events and things like that. And once I started doing that, again, I felt like all of these comparative feelings, all of this, like inferiority that I really hadn't felt before because I wasn't using social media, as a gauge or anything like that. And so I think that not only is it like, the reliance on social media, because we have to rely on it. But just like, I think it is inherently

like kind of toxic. And it kind of like promotes the mindset of using other people as a gauge and things like that, because I really hadn't felt that before. Until I…until I was kind of indoctrinated and had to use it for for classes and things. So yeah.

28:22
Moderator: Thank you for sharing that. That's a fascinating thought here is we're really talking about research. Because I know for many of you, you don't necessarily use Facebook, but then you come and we're using it for things that you have to be a part of and so that just made my brain think about like, are we forcing you into this as college professors and making you making the problem worse? That's great information I have. [Participant 8], go ahead.

28:51
Participant 8: I just wanted to bounce off of what [Participant 9] was saying. I think it brings up a really interesting perspective that I hadn't thought of before that social media is more of like a product than a source of all of this competitiveness and just comparing each other it being that we already have these things because of the environment, at UNT and then we go to social media for that external validation that as musicians, a lot of us kind of run on. And whether it be us posting about our own accomplishments, like see somebody telling me that I'm good enough, or looking at other people's posts and seeing like, Okay, where am I compared to them? And I'm wondering if I think steps like I forgot who said I think was [participant 1] that said like deleting social media and being able to avoid that altogether, I think can be really helpful. And so you kind of can get yourself out of that cycle. But I'm wondering if a lot of those and I guess it would be better for [participant 1] to talk about that since you experienced it. But if those comparative feelings were still there, just based on the environment, in choir in just like at departmental or those kinds of things where we are more not actually competing against each other but so has that environment as if we are kind of thing.

30:09
Moderator: My instinct would say that it exists in a lot of things. You know, as I have learned more about this, the original theories about social comparison come out of the 60s and 70s, long before social media existed. But in the last 10 or 15 years, they've been doing a lot of research within the context of social media, because it's just sort of exacerbated everything. A couple questions to ponder as I'm thinking, one I hear, it seems that a lot of you have brought up Instagram, which is good information for us to have, because in a student population, perhaps that's something else that we should look at. And then a lot of you as you start talking about Facebook, I heard this from you today and I saw this kind of conversations, as we were doing the surveys of maybe Facebook sort of becomes this thing that you're using professionally, whereas Instagram and things were something you were using more in your, in your personal social media, and how those, how those things interplay… I saw some head shaking. What would you have to say about that kind of thing?

31:21
Participant 3: Got it. Personally, the only reason why I have Facebook is for like professional use. Because, you know, like, I've been told, like networking, it's important, because you know,

all your professors are on there, all your friends are on there. And so like, I really feel like I'm careful about my presence on there. Not that and then I have like, my Instagram where I post like, my fun stuff, and I use that more for fun.

31:47
Moderator: I'm hearing that as a theme, you know, as I, I have lived in the education world for a long time. So like most of my stuff exists on Facebook, but also I don't really even use it for personal things. It's a lot of work type related stuff. [Participant 9].

32:02
I just want to say that it seems to me that a lot of like, people who are perhaps older in the industry, and things like that, that they present themselves in a way on Facebook, and like a purely professional way. And so that like kind of influences us to do the same. Like for instance, like my, like my old teachers from Amarillo College, were purely on Facebook, they didn't understand how to use Instagram and things like that. So it was like, because they were on it, it kind of like forced us to present a like, it's kind of professionally on Facebook, whereas on Instagram, because I feel like the population of like older members of the industry and older educators and things is lower, we feel free to just kind of go buck wild. So that's it.

33:01
That makes total sense. I understand that. For sure. This may be a vulnerable question to ask, but does it ever go the opposite direction for you? Do you ever see the performance of somebody on Facebook and be like, well, that made me feel better about myself? Because I'm better than that. Does that happen? I see some thumbs up. I know, that's something that's weird to talk about. But just curious how that works, [participant 1], yeah?

33:29
Participant 1: yeah, so yes, I'm not gonna lie about that. But I feel like we all have felt that way. If we feel like, oh, this person is better than me, we're obviously going to put ourselves somewhere in that category. There's always going to be someone who you feel is doing better than you. And there's always going to be someone who you feel is doing not as great as you and I feel like that's just kind of the reality and it's really heightened on social media, when somebody will post something and you're like, wow, like, that was good. But like, I think I could do that better. Like kind of attitude. Like I think it's really easy to become arrogant, especially as musicians. Because especially like, even like with your….when we get older and like have our own like ensembles. Like it's really easy to get arrogant, like, okay, like that ensemble sounded better than mine did, or mine sounded better than theirs did. And like, I feel like I see that a lot. Like from a third person perspective, like of choir directors, posting their choirs and like kind of hyping… hyping them themselves up and then like kind of crapping on other people. So I don't know.

34:37
Moderator: Yeah, it's a thing, like making lots of pictures that posted with our trophies and things, [participant 3]?

34:48
Participant 3: I definitely agree with this. And I don't think it's talked about as much I mean, if you think about things like the TIKTOK challenges like the RIF challenge of like all of these different things like the whole concept Double it is can you do it better than this person just did? Or can you do it better than how this person originally did? Or can you do it? Can you measure up to how this person originally did, like have a Mariah Carey run or someone that you see as like a pinnacle in musical history of some sort. And I just, I feel like it's like something in, I'm sorry, I've been really cynical of society lately. So this is kind of, I'm putting it a lot on, like we're in a society of, but anyways, we are in a society where we constantly feel like we have to put ourselves at a certain rank. And so I find myself like, oh, well, I could be better than this person, but I'm not as good as this person. Where am I measuring up to? Okay, so if they're like a 123, I might be a four, this person might be a five, you know, so I feel like a lot of like, I mean, you look at like class ranks in schools. I mean, it's I think it's been engrained in our brains for a long time. But I think a lot of it that just as much as we measure ourselves up to people that are very competitive, or people that are very seem to be very good in our field, we have the privilege of doing that since we go to UNT. But I can even speak from experience of when I was at Collin College, you know, I think there was maybe like, in my studio alone, I think there was maybe five, maybe three people that were college age, we had a lot of high school students. And so there are a lot of high school age students. And so it's easy to be like, oh, yeah, well, I'm better than them. Or like, yeah, I've come a long way compared to them. But at the same time, it's not quite the same. And so I feel like at UNT, we just experienced the latter more because we are in an advanced college and whatnot. But the other I think, is definitely just as prevalent.

36:43
Moderator: I'm sure that it happens in all sorts of situations. I wonder, kind of pivoting that just a little bit in our last few minutes. I wonder, does it when you see people post things, how does it change your opinions about them? Does it make you do you think positively or negatively of other people for the kind of things that they post? Or what they say? Do you have any thoughts on that at all?

37:12
Participant 3: I would say it depends of the nature of their post, you know, if it if it goes out of the norm of like, the professionalism aspect of like, at least Facebook, but it does, it does, like, it's still like positive or like, show some type of their personality in a positive way. I feel like I think higher of them. Yeah, but yeah, but I would say that, like, the way people present themselves on social media like and my subconsciousness definitely, like, affects the way I view them as a person, unfortunately.

37:45
Moderator: [participant 4], were you about to say something? *having an audio problem*

37:51
Participant 6: I can say something, I think I can't really give any, like specific examples of this. But just because I know that I do this, but couldn't like place when I do it. And I feel like

sometimes I pick stuff apart a little bit when other people post up on social media, like I'm trying to find like, holes or problems or something with whatever they're doing, which is so which is so silly and stupid, but it just kind of happens when it comes to the comparison thing. It's like what? I don't know, that's something that I find myself doing frequently. I guess. Yeah.

38:24
Moderator: I hear that for sure. Go ahead, [participant 5]

Participant 5: I'm sorry. I had some computer trouble a second ago. But, uh, so this is an interesting, it's an interesting question. Because, I mean, it's easy. It's pretty easy to go on social media and, you know, either be discouraged or encouraged by someone. So I remember during COVID I, there are a couple trumpet accounts that I stumbled across where I was like, I can probably play a little bit better than some of these players. But there's one player that put out a video and I was like, oh, okay, yeah, I can, I can definitely play better than that so I attempted to I actually attempted to put out my own recording. But the thing is, is I couldn't put it out because I kept getting frustrated in the practice session. And I could not play better than said person and I couldn't get out of recording. So it was an interesting experience. Having my perspective changed on that. I was like, Okay, well, not two hours ago, I was mentally, you know, quote, unquote, trashing this person in my head. But they at least put out a recording, they at least have the confidence to actually record themselves and put it out for other people to listen to. I didn't have that confidence to do so. So what does that say about me? What does that say about them?

39:44
Moderator: That's a very interesting perspective. I hadn’t thought about that concept either [participant 8] go ahead.

39:52
Participant 8: Um, I catch myself, especially with like preconceived. More negative motions like being intimidated if someone who I think is better than me, or, and like someone who would be involved in drama or just any like negative preconceived notion, whether it's founded or not, of somebody, I catch myself trying to validate what I already feel about somebody on their social media, seeing somebody make mistake, like, Oh, thank God, they're human too. I can make a mistake and like, oh, I can, I don't have to see them at this, like they're so good kind of limelight. And kind of like what you're talking about for seeing someone like, Oh, I could play better than them, but also feeling a sense of relief, seeing somebody who I thought was better than me make a mistake, just because they're human, and be like, okay, they're good. They're human too, and kind of validate my, what I already thought for myself, just from their social media. And I think that's also both like with any musical performances that could be posted, but also just more personal, particularly on Instagram being more like personal posts that are being made any of their just anything in general opinions or stories or anything like that, that I could use to see like, okay, they're human to kind of thing, I catch myself kind of grabbing out instead of wanting people that I'm intimidated of, or feel that I need to prove myself to wanting them to put out their best light. And not that you shouldn't be posting anything that has mistakes,

because those are natural, but instead of wanting them to do the best that they possibly can, I'm like, okay, they made a mistake to thank God, and kind of validating myself from their posts.

41:43
Moderator: I think that's a pretty natural reaction. This should be a brief question that just something that has crossed my mind, it seems a lot of you are speaking to me about as you came into music school, and like kind of investigating your peers via social media as that happens, how did …what my mind started thinking is how do you know who those people are? Is the reason that you even know what's going on with that? Because the like, for instance, I've noticed recently, the School of Music keeps posting pictures of all the incoming people. Is that where you are getting that information? Or how did you? How are you picking those people to compare to?

42:21
Participant 1: A lot of them we get from upfront, like, especially when I became like a upfront parent, we were given a spreadsheet of all the incoming freshmen that were music ed. So like, it had their social media on it, it had their I think it had their phone number or like some way of contacting them. So like, it was really easy for us to be like, Okay, let's go, let's go stalk this person on social media, like it made it really easy. And I don't know if there's a better way to do that. I think it's cool that we get to see them, but it also has negative aspects, obviously. So yeah, cuz like I formed opinions of the freshman before even let them and like, some were good, and some were bad. And that's just that's just because of social media. And because of how it looks to me and how I perceived it.

43:13
Moderator: That's a normal reaction, I'm would be lying to you. If I didn't tell you when I was interviewing people for jobs if I didn't go through the resumes and look up their social media accounts to see to see what I could learn about them before I interviewed them. That's a very normal thing. [Participant 5], Go ahead.

43:29
Participant 5: I was just gonna bounce off of [participant 1]. I actually got my information earlier than that, because I volunteered for College of Music auditions after my freshman year of college, which was probably one of the worst decisions that I probably would have made. It was cool running the audition. Like, don't get me wrong. But he being able to hear those people because not only did you check them in, you heard their name, you heard them sing. You even sometimes heard them answer questions. And so getting all that information, like right off the bat, was just kind of like overwhelming because not only did I have that I also had a rep sheet that was right in front of me that had what they were singing. And so I could like…if I think I looked up a couple of people on like Facebook and Instagram, so I was like, these people are like really, really good. Like, and I remember just sitting there and being like, I didn't sound this good in my audition. Like, I was like, I don't know how I really got here because all these people just sound so good. And all the rep is so much better than what I presented. I was like, Well, what happened to singing something out of 24 Italian Arias, like all these people are singing

stuff that's like so much more advanced and like, yeah, and then I saw those people later who like, had gotten that I was able to like see audition and I was just like I don't really know how I got here.

45:00

Moderator: Wow, y'all have shared a lot of stuff, I don't want to keep you longer than I said, I would, I'll just kind of wrap things up. It seems like this is a real thing for most of you, for sure. And a lot of what I hear you talking about is, is, in many ways, sizing yourself up with the peers around you, and seeing how that makes you feel, which all of this makes total sense as to why the information that I got from the survey that I did was as it was. And so as I use this, a lot of the things that you've said, everything that's going to be anonymous, but a lot of things that you've said, I've heard quotes today and things that are probably about to go in my dissertation in his research paper to help explain some of the stuff that was happening. Is there anything that I just haven't asked about or that I've missed that you feel like that you should share with me, or we kind of hit the things? *acknowledged the nonverbal feedback* Good. I'm glad that we have done this. It really isn't. There's lots of research about this. But there's really not research about this within music education. So a lot of the things that you're saying are confirming some things that seemed like they were probably true, but we didn't have any evidence of things. And so this is kind of our first shot at looking and getting a little bit of evidence about it. And we will probably follow up with some different research studies, as we go a little bit further into this. But it's been really, really helpful. So I appreciate you taking time out of your summer to do this, and be a part of it. I appreciate you all being here. Thank you. Yeah, thank you have a great summer. Everyone. Thank you!

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