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The Skills and Knowledge Gap in Higher Music Education: An Exploratory Empirical Study

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Abstract

Research claims that entrepreneurial skills and knowledge are important for the careers of musicians (Bennett, 2016; Breivik, Selvik, Bakke, Welde & Jermstad, 2015; Coulson, 2012). Alumni of higher music education (HME) report “a gap between the perceived importance of such [entrepreneurial] skills and their acquisition” (Miller, Dumford & Johnson 2017, p. 11). As a response, institutes of HME have integrated arts entrepreneurship education to help music students acquire these skills and knowledge to a greater extent (Beckman, 2005, 2007). Yet, specifically which entrepreneurial skills and knowledge (Lackeus, 2015) arts entrepreneurship education helps students acquire lacks empirical support and articulation. In this exploratory pilot study, I create, disseminate and use exploratory data analysis (Tukey, 1977) to understand the descriptive statistics of survey

responses from teachers and students of HME in Norway. Respondents rated the perceived importance and acquisition of a variety of skills and knowledge while considering students' future careers. Students also reported to what extent they felt they learned entrepreneurship through their current study program. Consistent with previous research, the findings show a "gap between the perceived acquisition of skills and the importance of such skills" (Miller et al., 2017, p. 11) in HME. The largest gaps in this study are for the following specific skills and knowledge: sales/marketing, market/industry, financial, social media, and business planning. Additionally, as students report they felt they learned entrepreneurship to increasingly larger extents, this gap is closed and narrowed. This shared tendency between the increased extent of entrepreneurship learned by music students and the perceived increase in the acquisition of various skills and knowledge is new insight for the field. Implications for arts entrepreneurship practitioners are discussed in addition to some ideas for future in-depth research.

Music Careers and Enforced Entrepreneurship

Students in the performing arts will often have "portfolio" careers which consist of a never-ending, self-managed series of simultaneous and overlapping employment engagements (Cawsey, 1995; Teague & Smith, 2015). These engagements vary according to the spectrum and diversity of employers, but also to the type of work undertaken. Musicians, for example, often maintain portfolio careers as music teachers, freelancers, and performers, in which they depend on a set of entrepreneurial skills to network, recognize opportunities, and maintain a livelihood (Bennett, 2016; Breivik et al., 2015; Coulson, 2012).

Over 42 percent of surveyed musicians in Germany claim their career is made possible through self-employment (Dangel & Piorkowsky, 2006); musicians in Australia on average held more than one music industry role and often "don't know any musicians who do only one thing" (Bennett, 2007); over 90 percent of the studied UK musicians hold a secondary occupation; and in Denmark, 6 percent of music graduates worked solely in performance, with half of them working in both performance and teaching (Traasdahl, 1996). Being self-employed and generating their own work means that individuals have to use various skills beyond the scope of the "conservatory model" in higher music education (HME), where the main focus of training has been teaching "music through instrumental skills" (Orning, 2017, p. 3). This model is "narrow and extremely focused on the skills of performing." (Cutietta, 2010, p. 13). This may be considered a problem if music graduates often maintain portfolio careers consisting of a patchwork of professional roles and become "enforced entrepreneurs" upon graduation (Bennett & Bridgstock, 2015, p. 263).

Arts Entrepreneurship Education

Since “most artists find themselves entrepreneurs by default immediately [when] they begin searching for work” (Bennett, 2009, p. 323), it may be understandable why the “increasing importance of professional development is one of the most dynamic trends emerging in the arts within higher education. Publicly funded institutions in particular are increasingly relying on entrepreneurship as a means to prepare students for musical careers” (Beckman, 2005, p. 13). Beckman first wrote about this trend in 2005 and later conducted a study which mapped at least 37 U.S. higher education institutions offering arts entrepreneurship education (Beckman, 2007). Integration of arts entrepreneurship in the U.S. has increased since then: In 2016, Essig and Guevara (2016) mapped 372 offerings by 168 institutions in the U.S. Arts entrepreneurship education is also offered in countries outside of the U.S., such as Australia, Germany, the Netherlands, Norway, and the UK (Brandenburg, Roosen & Veenstra, 2016; Pollard & Wilson, 2013; Thom, 2017; Toscher & Bjørnø, 2019; Watne & Nymoene, 2017).

Despite this, there is no consensus on what an arts entrepreneurship offering is and which specific knowledge and skills it teaches. In 2005, Beckman studied musical entrepreneurship in HME and wrote that they could not find “consensus on how to approach entrepreneurship curricula this environment” (p. 13). Eight years later, White (2013) noted there were still “no formally recognized outcomes for arts entrepreneurship by an accreditation organization” in the U.S. (p. 35). This could be because it is a “transdiscipline,” as Essig and Guevara (2016) describe it; or it could be, because arts entrepreneurship has been specific to the economic, cultural, and educational contexts in which it is taught, a contextual approach which has been advocated for by Beckman (2007). In either case, it may appear that educational institutions have implemented arts entrepreneurship education in response to their interpretation that some general level of entrepreneurial skills are needed for their students’ careers, yet what these specific entrepreneurial skills are is the subject of continuous inquiry.

Even in the broader field of entrepreneurship education there are a variety of curricular offerings with “shifting definition, pedagogical approaches and varying emphasis on theory over practice” (p. 8, Lackeus, 2015). In their paper *Entrepreneurship in Education: What, Why, When, How*, Lackeus defined entrepreneurial competencies as “knowledge, skills and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation” (p. 12). The main goal of most such education is for students to develop a level of these knowledge, skills, and/or attitudes, whether in an offering which is “about, for, or through entrepreneurship” (p. 10). Lackeus then theoretically articulated these specific skills and knowledge and how they relate to a more generalized notion of entrepreneurial skills and knowledge, but empirical data supporting this relation is lacking.

Empirical research has contextualized and further defined these entrepreneurial skills and knowledge alongside the educational and cultural contexts in which arts entrepreneurship is being offered. In the Netherlands, Brandenburg et al. (2016) determined the “six most essential entrepreneurial skills for Art & Technology students” (p. 25) and evaluated a selection of business modeling methods based on the extent to which they contributed to mastering these skills. Thom (2016) surveyed 208 lecturers of the fine arts (who were also working artists) from 89 higher education institutions in the UK and Germany to rank the 16 most “crucial skills for the entrepreneurial success” (p. 3) of artists.

Miller et al. (2017) published a study in the *International Journal of Education & the Arts* in which 16,317 music performance, music theory, and music education alumni from U.S. higher education institutions rated the perceived professional importance for 16 different categories of skills and knowledge and their perceptions of their acquisition of these skills and knowledge during their music education. They found that:

...the average ratings of importance for business and entrepreneurial skills are quite high across all three majors, with music performance majors rating them significantly higher. This gap between the perceived acquisition of skills and the importance of such skills in the workplace should be a concern for music faculty and administrators. Music students of all major types need increased exposure to business and entrepreneurial skills to be better prepared for the logistic and practical components of work in their field. Trends in the arts economy suggest that since many artists are self-employed, they need direct instruction in entrepreneurial experiences such as marketing, budgeting, taxes, and strategic planning (Haase & Lautenschläger, 2011). Since we also see that music performance majors are more likely to be self-employed, this is a place where more curriculum reform might aid in the development of music professionals. (p. 11)

In a similar study, Skaggs, Frenette, Gaskill & Miller (2017) found music alumni perceived their acquisition of skills were significantly lower than their importance in a similar fashion to Miller et al. (2017), with the biggest gaps being for business and financial skills (-58%) and entrepreneurial skills (-43%).

The Need for Further Study

While these studies individually inquire into how various entrepreneurial skills are viewed as “essential” (Brandenburg et al., 2016), “crucial” (Thom, 2016), or “important” for artists (Miller et al., 2017) in different cultural, educational, and artistic contexts, they fall short of their potential to provide a more thorough, contextualized exploration of these skills, how they relate to a more generalized notion of entrepreneurial skills, and how arts entrepreneurship

education is related to their acquisition. However, these studies do provide some guidance for conducting such a study in the following ways.

These studies provide an empirically derived list of entrepreneurial skills and knowledge which could be the basis for a study examining the perceptions of such skills and knowledge. Additionally, both Brandenburg et al. and Miller et al. present findings from the perspectives of students. Thom presents the perspective of faculty. Yet none of these studies present the perspectives from both students and faculty within one cultural, educational, and temporal context, nor directly compare them. Miller et al. acknowledge that “gathering data from current students and faculty is vital” (p. 14). Miller et al. noted that the “gap between the perceived acquisition of skills and the importance of such skills in the workplace should be a concern for music faculty and administrators” (p. 11) and concluded that “future research should continue to bridge the gap between acquired skills and career demands” (p. 14).

This skills and knowledge gap is the main focus of this paper and is defined as the difference between the perceived professional importance of skills and knowledge and the perceived acquisition of said skills and knowledge. Such a skills gap may be an example of what some say is a HME curriculum and education in “crisis” (Orning, 2017).

No research has compared the perceived importance and perceived acquisition of various skills from both the student and faculty perspective within the same cultural, educational, and temporal setting. Thus, a preliminary exploration which compares these perspectives may be useful to guide future inquiry, which answers questions related to which specific skills and knowledge are being acquired in an arts entrepreneurship education within a specific individual context. This may lead to answering normative questions of which skills should be the focus of such education, as the addition of arts entrepreneurship courses to a curriculum is “often a zero-sum game,” which result in reductions in budget or course offerings elsewhere (Essig & Guevara, 2016, p. 28).

Exploring and Clarifying Skill Acquisition Outcomes in Arts Entrepreneurship

In Norway, entrepreneurship has been increasingly taught in HME since 2011. In 2017 it was reported that at least 35 courses had entrepreneurship as a stated competency goal and 49 obligatory courses had entrepreneurship as either a minor or major part coursework (Watne & Nymoen, 2017). But besides this more generalized notion of entrepreneurship, it is unknown what skills students may be acquiring. From elsewhere, there is little research which has looked at the learning outcomes of arts entrepreneurship in arts education using empirical data. Thus, accounting for students’ exposure to arts entrepreneurship education while also considering their perceptions of the importance and acquisition of various skills and knowledge may help close this research gap.

First, it may provide preliminary evidence clarifying which specific entrepreneurial skills are being acquired through the entrepreneurship courses being taught at the HMEs in this study. Lackeus (2015) performed work to stratify the general construct of entrepreneurial skills into a set of more specific skills and knowledge, yet previous research (Miller et al., 2017; Skaggs et al., 2017) has still reported findings related to this more generalized construct of entrepreneurial skills. In the absence of data verifying that students have attended specific arts entrepreneurship courses, students could report the extent they felt they learned about entrepreneurship through their current study program (from a very small extent to a very large extent) (hereafter referred to as “EE subsamples”). These EE subsamples would then report the perceived acquisition of specific skills. We may then begin to see which specific skills and knowledge of the entrepreneurial (Lackeus, 2015) type they may be developing by observing which specific skills students feel they acquire to increasing extents as they learn more entrepreneurship. Second, while Lackeus’ entrepreneurial competencies includes most of the skills that have been previously studied by Miller et. al (2017), Brandenburg et al. (2016), and Thom (2016, 2017), a scarcity of empirical research relates the more generalized notion of entrepreneurship and entrepreneurial skills to a more clearly articulated set of skills and knowledge theoretically presented by Lackeus. The research design proposed above may provide some insight here.

However, in order to contextualize the perceptions of how both students and faculty perceive the importance of various skills for their careers, it might be useful to first understand how they define and conceptualize such careers. In addition to defining career success, career hopes and expectations have been acknowledged as one way to approach such a conceptualization (Bennett and Bridgstock, 2015). As Smith, a music educator and researcher, (2013) writes:

The challenge for those of us working in music education is to recognise and incorporate contemporary understandings of the work patterns of successful music professionals, and, where necessary, to alter discourses accordingly. As teachers, the personal narratives that we offer our students about life as musicians are thus essential – reflecting success for the majority of musicians in our culture and supportively guiding students towards realistic expectations of how they will likely work. (Smith, 2013, p. 34)

Research Questions

Thus, this paper is an exploratory pilot study that attempts to answer the following research questions:

RQ1. What are music students’ definitions of career success, as well as their career hopes and expectations?

RQ2. How do music students and faculty report and rate the perceived importance of various skills and knowledge for students’ careers? How do they rate perceived acquisition of those same skills?

RQ3. To what extent do music students feel they have learned entrepreneurship through their current study program? What do the subsequently derived EE subsamples reveal when used to explore findings from RQ2?

Empirical Data – A Cross Sectional Survey

Using a list of skills and knowledge taken from the previous empirical studies conducted by Miller et al. (2017) and Thom (2016), a cross-sectional survey was distributed to music students enrolled at 5 institutes of HME in Norway (see Tables 1 and 2). The list of skills and knowledge provided to students are the following: creativity, networking, music specific/theory, technology, sales/marketing, market knowledge, communication/presentation, strategy/planning, financial, leadership, decision-making, problem-solving, teamwork, social media/IT, and business planning.

First, students were asked to state what they hope and expect to do in their careers after graduation, and faculty were asked to state what they expect their students to do in their careers after graduation. Both students and faculty were asked to define a successful career in music.

Tables 1 (Left) and 2 (Right)

Left. *Institutes of HME in the Study*. Right. *Study Programs of Student Respondents*

	Number of Student Respondents	Number of Faculty Respondents	Do They Offer Courses in Entrepreneurship?
HME Institute #1	25	4	No
HME Institute #2	7	4	No
HME Institute #3	40	3	Yes
HME Institute #4	11	0	Yes
HME Institute #5	31	26	Yes
	114	37	

Study Programs of Student Respondents - % of total Sample	
Conducting	1%
Music technology	12%
Musicology	13%
Pedagogy	5%
Performance	59%
Music Therapy	10%
	100%

Respondents (students and faculty) were then asked to rate how they perceived the importance of various skills and knowledge for their students' future careers. For the importance rating, respondents made their rating ranging from "Very Unimportant" to "Very Important" along a 5-category Likert-type scale, with each category having an increasing ordinal value (from 1 to 5) (Boone & Boone, 2012). Afterwards, they were asked to what extent they perceive to have acquired these skills and knowledge through their studies. For the acquisition rating, respondents made their rating ranging from "To a Very Small Extent" and "To a Very Large Extent" along a 5-category Likert-type scale with each category having an increasing ordinal value (from 1 to 5).

Additionally, student respondents were asked "To what extent they felt they learned entrepreneurship through their current study program?" and responded on a 5-category Likert-type scale, ranging from "To a Very Small Extent" to "To a Very Large Extent." Since there has been much discussion in the literature about the assessment of arts and entrepreneurship education (Miller et al., 2017; White, 2013), the responses to this question are then used in sorting out student respondents into EE subsamples for exploration of their subsequent perceptions of the importance and acquisition of various skills and knowledge.

While these self-reported perceptions are subjective, other studies on self-reporting in higher education indicate that self-report and abilities are positively related (Anaya, 1999; Hayek, Carini, O'Day & Kuh, 2002; Laing, Swayer & Noble, 1989; Pike, 1995) and the method of having students self-assess their skills and importance in order to determine and analyze gaps within a curriculum an unprecedented practice (Davis, Misra & Van Auken, 2002; Lamb, Shipp & Moncrief, 1995).

The survey was disseminated through a variety of informal and formal channels such as social networks and e-mail lists. 114 responses were received from students ($N_s = 114$) and 37 ($N_f = 37$) responses from faculty, which includes administration and teaching staff. Direct access to a list of e-mails with a specific count of potential respondents was not available. The best estimate of the amount of music students in HME in Norway is 1,500 (Arnesen, Waagene, Hovdhaugen & Støren, 2014) and the amount of faculty to be 371.¹ Assuming the survey reached all possible respondents, it is estimated the theoretical response rate for N_s is approximately 7.6% and the response rate for N_f is approximately 9.9%. This project was reported to the Norwegian Data Protection Official for Research and received approval. All

¹ The total amount of faculty in HME in Norway is unavailable. However, the amount of faculty and students at Norway's largest HME, *Norges Musikkhøgskole*, is available. As of May 2, 2018, there were 731 students and 181 faculty, for a ratio of 4.04 students / faculty member (NSD, 2018). This ratio is applied to the estimate of 1,500 students in HME in Norway in order to calculate an estimate of total faculty.

respondents agreed to participate in this survey, were informed of their rights in accordance with this approval, and that their responses would be used in research.

Method – Exploratory Data Analysis

In this study, I use a form of exploratory data analysis (EDA) (Tukey, 1977). This analytical approach has been partially characterized by Behrens to include: (a) an emphasis on graphic representations of data, (b) use of subset analysis, (c) a focus on understanding “what is going on here?”; and (d) “the broadening of data analysis to incorporate a wide range of attitudes and techniques appropriate to the different stages and questions in scientific work” (Behrens, 1997, p. 132). Further, EDA emphasizes that “at different stages of research there are different types of questions, different levels of hypothesis specificity used, and different levels of conclusion specificity that are warranted” (Behrens, 1997, p. 134).

Miller et al. (2017) found in their study that there was a “gap between the perceived acquisition of skills and the importance of such skills” (p. 11). Based on their finding, this paper primarily uses EDA to further understand “what is going on here?” with this gap. One way to explore data from the survey is by considering this skills and knowledge gap across many perspectives. For example, the following perspectives in Table 3 can be used to explore data:

Table 3

Different Types of Perspectives to Explore the Perceived Knowledge and Skills Gap.

Perspective	Explanation
Student Perspective	Student Perceived Importance compared to Student Perceived Acquisition
Faculty Perspective	Faculty Perceived Importance compared to Faculty Perceived Acquisition
Cross Student-Faculty Perspective #1	Student Perceived Importance compared to Faculty Perceived Acquisition
Cross Student-Faculty Perspective #2	Faculty Perceived Importance compared to Student Perceived Acquisition
Student Perspective, Subsampled According to Extent of Entrepreneurship Learned	Student Perceived Importance compared to Student Perceived Acquisition, subsampled according to the extent of entrepreneurship they felt they learned through their current study program

While it could be argued that the perceived importance and perceived acquisition are two different categories that cannot be compared, and acquisition cannot be subtracted from

importance, these two categories have already been qualitatively compared with each other by Miller et al. (2017). Further, I do not perform mathematical operations involving both of these categories of data at the same time. Second, it is possible that when asking a respondent to rate their perceived *importance* of something, then subsequently state their perceived *acquisition* of that very thing, it is possible that a difference between the two may be interpreted to be (by either the respondent or an observer), as Miller et al. writes, a “concern” (p. 11).

Finally, it is not the intention of this exploratory paper to investigate statistical relationships related to causation or correlation, statistical significance, hypothesis generation, or other aspects of confirmatory data analysis. As statistician John Tukey wrote: “exploratory data analysis can never be the whole story, but nothing else can serve as the foundation stone – as the first step” (p. 3). Thus, I present descriptive statistics of the empirical survey data. Such statistics are used to “descriptively to describe the characteristics of a group of observations... simply the numerical procedures or graphical techniques used to organize and describe the characteristics or factors of a given sample” (Fisher & Marshall, 2009, p. 93). The descriptive statistics presented include the statistical mode, which is representative of a central tendency for a sample (Jamieson, 2004) and frequency distributions. Though Miller et al. (2017) describe the skills gap using the statistical means from their sample, this graph is explored graphically using the statistical mode as well as through frequency distributions as seen in Tables 7 and 8. Given that the survey consisted of Likert-type scales which result in ordinal values, I take a statistically and methodologically conservative approach by not converting these responses to numerical interval values when exploring the findings (Cohen, Manion & Morrison, 2007). Further, I do not make generalizable claims or infer findings to a broader population other than those respondents that actually participated in the survey. Besides the EE subset analysis, the units of analysis in this study are the student respondents (in their entirety) and the faculty respondents (in their entirety).

Findings

In this section, I present findings from the cross-sectional survey and the subsequent EDA. For discussion and interpretation of these descriptive statistics, please refer to the Discussion section.

RQ1. What are music students’ and faculty’s definitions of career success, as well as their career hopes and expectations?

Table 4 presents the findings from how the respondents (students and faculty) defined career success. Table 5 displays a comparison of students’ hopes and expectations for their own careers, and Table 6 compares student and faculty expectations for the students’ careers.

Table 4

Student and Faculty Definitions of Career Success.

	<i>Students</i>	<i>Faculty</i>
	% of sample	
To get rich	2 %	0 %
To get famous	7 %	3 %
To make a living out of music	72 %	73 %
To do something unique	38 %	43 %
To be independent	46 %	32 %
To be involved in music for as long as you wish	57 %	0 %

Table 5

Students' Hopes and Expectations for their own Careers.

	<i>Hopes</i>	<i>Expectations</i>
	% of sample	
Teaching	46 %	62 %
Performing - orchestra	25 %	22 %
Performing - studio	22 %	18 %
Performing - band/solo	52 %	39 %
Composing	28 %	18 %
Producing	29 %	20 %
Conducting	15 %	15 %
Therapy	16 %	14 %
Don't know	4 %	12 %

Table 6

Student and Faculty Expectations for Students' Careers.

	<i>Students</i>	<i>Faculty</i>
	<i>% of sample</i>	
Teaching	62 %	38 %
Performing - studio	18 %	41 %
Performing - band/solo	39 %	43 %
Composing	18 %	14 %
Producing	20 %	14 %
Conducting	15 %	19 %
Therapy	14 %	11 %
Freelance/Portfolio Careers	89 %	68 %
Don't know	12 %	8 %

RQ2. How do music students and faculty report and rate the perceived importance of various skills and knowledge for students' careers? How do they rate perceived acquisition of those same skills?

Figure 1 is a graphical representation of how both students and faculty perceive and rate the importance and acquisition of the knowledge and skills provided in the survey form. This figure can be examined to explore any of the perspectives previously described in Table 3. In Figure 1, the statistical mode of the responses provided by the respondents is plotted against various skills and knowledge in the x axis. These statistical modes represent the most commonly provided response to the 5-category Likert-type scales presented to respondents. Note that the y axis plots the ordinal values of the responses, which makes this figure easier to interpret. Table 7 presents a frequency distribution of the responses showing how respondents perceive the importance of the various skills and knowledge, while Table 8 presents a frequency distribution of the responses showing how respondents perceived the students' acquisition of those same skills and knowledge.

Perceived Importance and Acquisition of Various Skills and Knowledge

For Importance, Ordinal Value of 1 = "Very Unimportant", 2 = "Unimportant", 3 = "Neutral", 4 = "Important", 5 = "Very Important"

For Acquisition, Ordinal Value of: 1 = "To a Very Small Extent", 2 = "To a Small Extent", 3 = "To Some Extent", 4 = "To a Large Extent", 5 = "To a Very Large Extent"

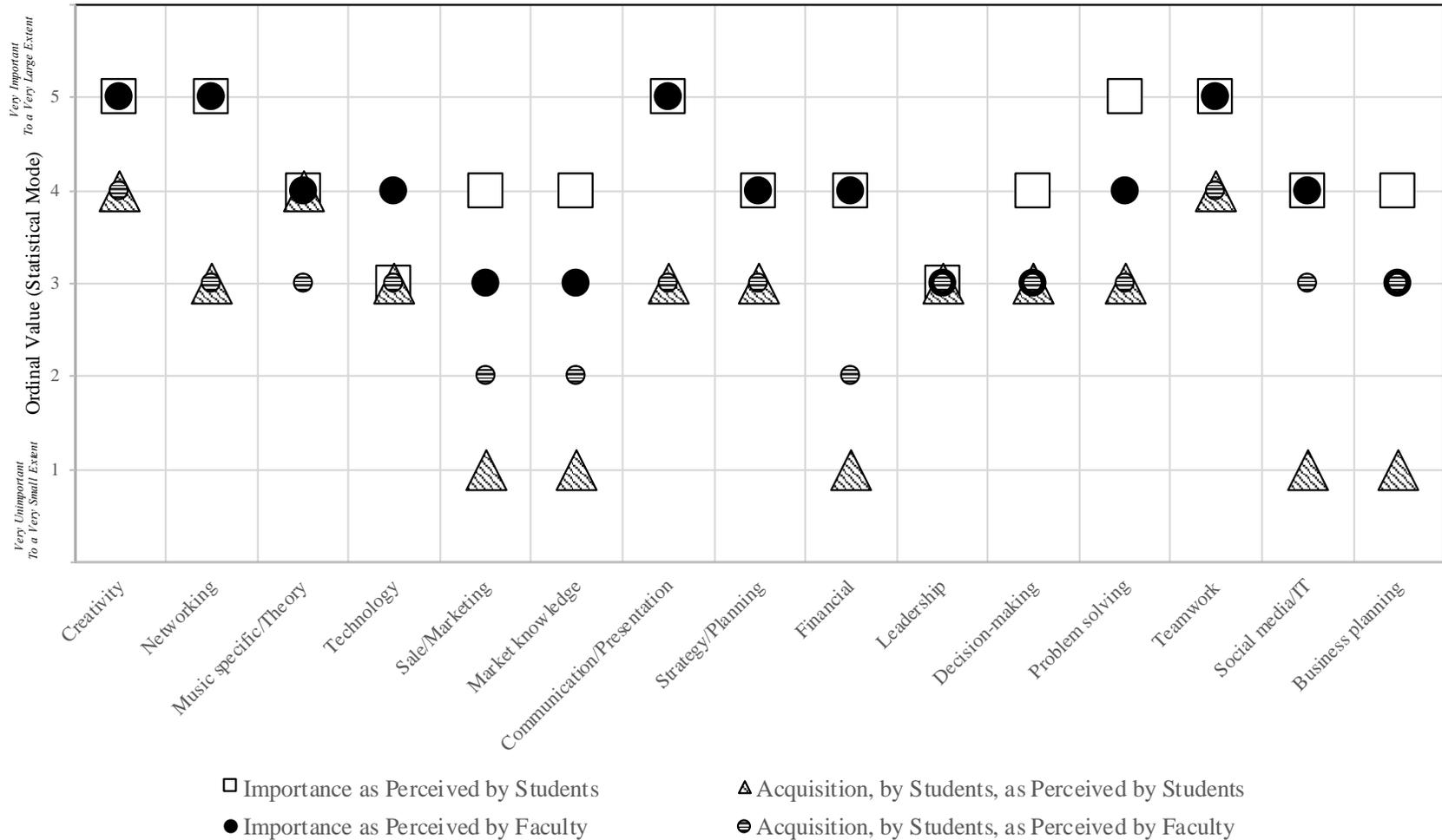


Figure 1. Graphical Representation of the Knowledge and Skills Gap Found in this Study

Table 7

Frequency Distribution of the Responses Showing How Respondents Perceive the Importance of the Various Skills and Knowledge.

	Perceived Importance of Various Skills and Knowledge for Students' Careers - Frequency Distribution									
	Students (N _s = 114)					Faculty (N _f = 37)				
	Very Unimportant	Unimportant	Neutral	Important	Very Important	Very Unimportant	Unimportant	Neutral	Important	Very Important
Creativity	0 %	1 %	3 %	33 %	63 %	0 %	0 %	5 %	27 %	68 %
Networking	0 %	0 %	4 %	35 %	61 %	0 %	0 %	8 %	35 %	57 %
Music specific/Theory	1 %	6 %	27 %	44 %	22 %	0 %	0 %	27 %	57 %	16 %
Technology	1 %	16 %	40 %	33 %	10 %	0 %	3 %	30 %	57 %	11 %
Sale/Marketing	2 %	10 %	25 %	39 %	25 %	0 %	3 %	49 %	46 %	3 %
Market knowledge	2 %	10 %	29 %	39 %	20 %	0 %	0 %	51 %	46 %	3 %
Communication/Presentation	0 %	1 %	13 %	41 %	45 %	0 %	0 %	8 %	43 %	49 %
Strategy/Planning	0 %	1 %	20 %	45 %	34 %	0 %	3 %	19 %	51 %	27 %
Financial	0 %	7 %	28 %	43 %	22 %	0 %	3 %	38 %	43 %	16 %
Leadership	0 %	8 %	36 %	32 %	24 %	0 %	5 %	57 %	38 %	0 %
Decision-making	0 %	4 %	22 %	46 %	27 %	0 %	3 %	49 %	35 %	14 %
Problem solving	0 %	5 %	17 %	34 %	44 %	0 %	0 %	22 %	51 %	27 %
Teamwork	0 %	4 %	2 %	24 %	70 %	0 %	0 %	3 %	24 %	73 %
Social media/IT	1 %	12 %	32 %	34 %	21 %	0 %	3 %	32 %	54 %	11 %
Business planning	4 %	18 %	32 %	35 %	11 %	0 %	3 %	57 %	38 %	3 %

Table 8

Frequency Distribution of the Responses Showing How Respondents Perceive Students' Acquisition of the Various Skills and Knowledge.

	Perceived Acquisition of Various Skills and Knowledge by Students - Frequency Distribution									
	Students' Perception of their Own Acquisition (N _s = 114)					Faculty's Perception of Students' Acquisition (N _f = 26)				
	To a Very Small Extent	To a Small Extent	To Some Extent	To a Large Extent	To a Very Large Extent	To a Very Small Extent	To a Small Extent	To Some Extent	To a Large Extent	To a Very Large Extent
Creativity	3 %	7 %	31 %	39 %	21 %	8 %	0 %	27 %	46 %	19 %
Networking	18 %	28 %	36 %	16 %	3 %	8 %	19 %	62 %	8 %	4 %
Music specific/Theory	0 %	8 %	15 %	42 %	35 %	0 %	4 %	46 %	38 %	12 %
Technology	13 %	27 %	34 %	18 %	7 %	4 %	15 %	54 %	23 %	4 %
Sale/Marketing	37 %	32 %	23 %	7 %	1 %	19 %	38 %	35 %	4 %	4 %
Market knowledge	35 %	26 %	30 %	8 %	1 %	12 %	38 %	38 %	8 %	4 %
Communication/Presentation	9 %	28 %	35 %	24 %	4 %	0 %	0 %	58 %	35 %	8 %
Strategy/Planning	16 %	28 %	38 %	18 %	1 %	0 %	23 %	62 %	8 %	8 %
Financial	46 %	32 %	17 %	4 %	1 %	19 %	42 %	31 %	4 %	4 %
Leadership	30 %	24 %	33 %	11 %	3 %	4 %	31 %	58 %	4 %	4 %
Decision-making	21 %	27 %	29 %	20 %	3 %	4 %	27 %	54 %	12 %	4 %
Problem solving	14 %	26 %	34 %	18 %	8 %	0 %	4 %	58 %	35 %	4 %
Teamwork	8 %	11 %	22 %	37 %	22 %	0 %	0 %	15 %	58 %	27 %
Social media/IT	51 %	29 %	15 %	4 %	1 %	4 %	35 %	42 %	19 %	0 %
Business planning	50 %	25 %	21 %	3 %	2 %	27 %	23 %	46 %	4 %	0 %

RQ3. To what extent do music students feel they have learned entrepreneurship through their current study program? What do the subsequently derived EE subsamples reveal when used to explore findings from RQ2?

The following statistics present findings from student responses after they have been sorted into EE subsamples. Table 9 presents statistics that show the extents to which students felt they have learned entrepreneurship through their current study program. These represent the 5 EE subsamples which are then used in the EDA and presented in Figures 2 and 3. Figure 2 is a graphical representation displaying the perceived importance of skills and knowledge according to these 5 EE subsamples of students. Figure 3 is also a graphical representation, however it displays the perceived acquisition of skills and knowledge across the same 5 subsamples of students. Table 10 presents the statistical modes of responses provided by students, sorted according to these 5 subsamples. For the purposes of easier interpretation of Table 9, these responses are displayed by their ordinal value (e.g. an ordinal value of 1 for importance = “Very Unimportant”, and ordinal value of 5 for importance = “Very Important”). It is easier to interpret a potential “closing” or “opening” of the knowledge and skills gap with numerical values rather than the words they represent.

Table 9

EE Subsamples, based on the Extents to Which Students Felt They Have Learned Entrepreneurship through their Current Study Program.

Students were asked: "To what extent do you feel you learned entrepreneurship through your current study program?"		
	Number of Students	%
To a Very Small Extent	32	28 %
To a Small Extent	30	26 %
To Some Extent	41	36 %
To a Large Extent	9	8 %
To a Very Large Extent	2	2 %
<i>Total</i>	114	100 %

Perceived Importance of Various Skills and Knowledge According to the Felt Extent of Entrepreneurship Learned Through Current Study Program

For Importance, Ordinal Value of 1 = "Very Unimportant", 2 = "Unimportant", 3 = "Neutral", 4 = "Important", 5 = "Very Important"

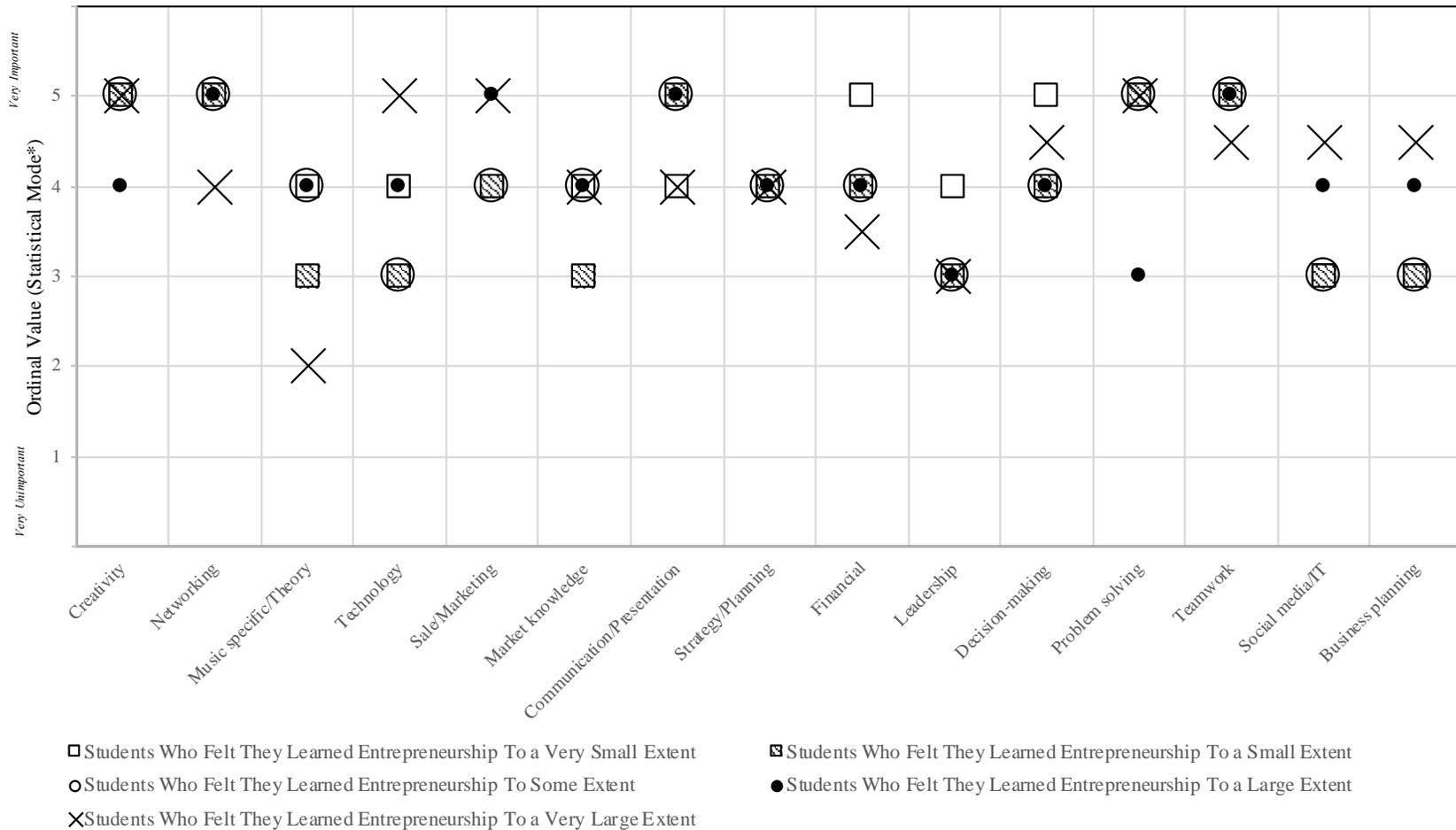


Figure 2. Graphical Representation of Students Perceptions of Importance of Skills and Knowledge, by EE Subsample.

Perceived Acquisition of Various Skills and Knowledge According to the Felt Extent of Entrepreneurship Learned Through Current Study Program

For Acquisition, Ordinal Value of: 1 = "To a Very Small Extent", 2 = "To a Small Extent", 3 = "To Some Extent", 4 = "To a Large Extent", 5 = "To A Very Large Extent"

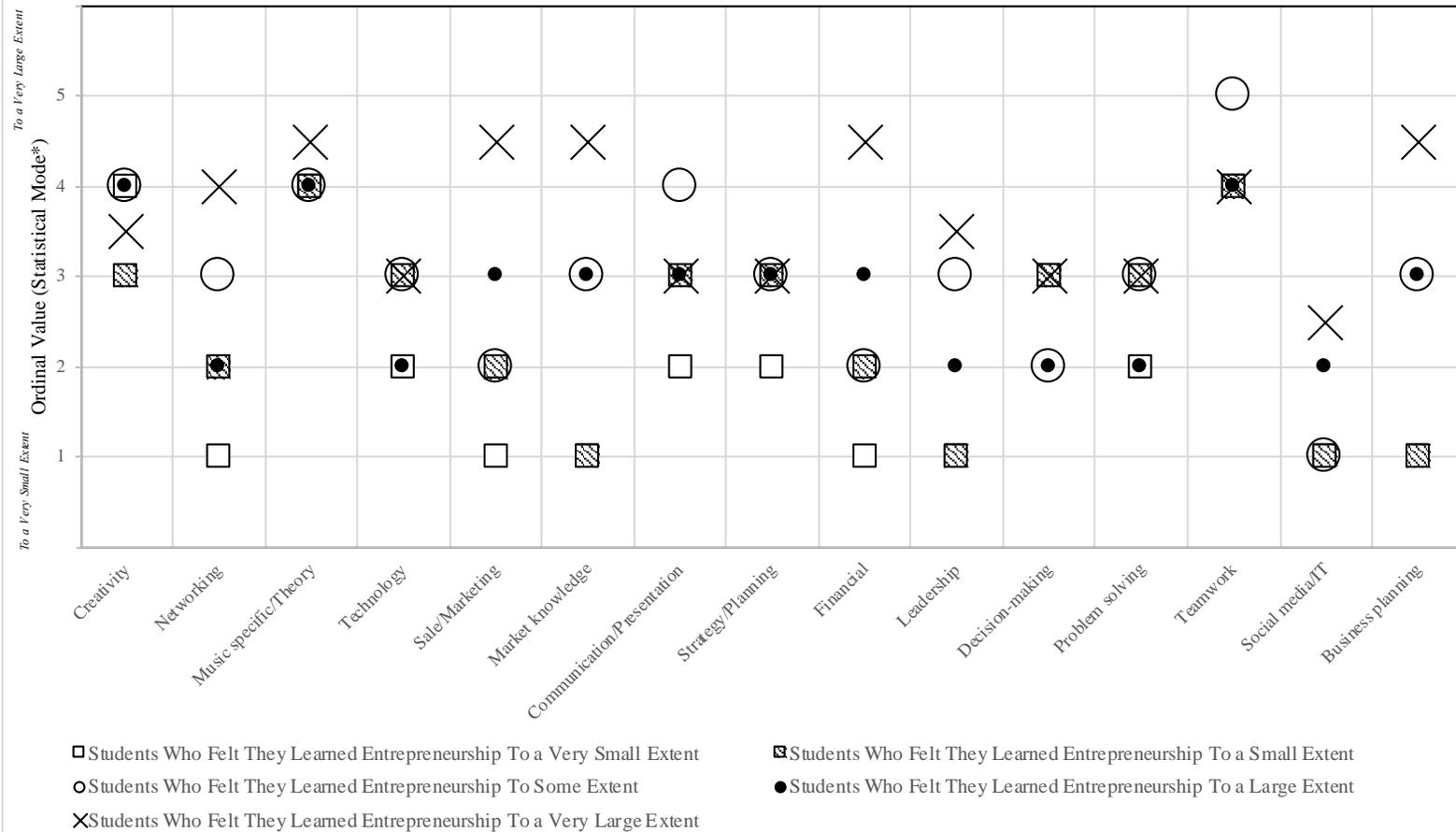


Figure 3. Graphical Representation of Students Perceptions of Acquisition of Skills and Knowledge, by EE Subsample.

Table 10

Statistical Modes of Responses Provided by Students, Sorted According to the 5 EE Subsamples.

Students Were Asked: "To What Extent Do You Feel You've Learned Entrepreneurship Through Your Current Study Program?"										
	To a Very Small Extent		To a Small Extent		To Some Extent		To a Large Extent		To a Very Large Extent	
	Perceived Importance	Perceived Acquisition	Perceived Importance	Perceived Acquisition	Perceived Importance	Perceived Acquisition	Perceived Importance	Perceived Acquisition	Perceived Importance	Perceived Acquisition
Creativity	5	4	5	3	5	4	4	4	5	3,5*
Networking	5	1	5	2	5	3	5	2	4	4
Music specific/Theory	4	4	3	4	4	4	4	4	2	4,5*
Technology	4	2	3	3	3	3	4	2	5	3
Sale/Marketing	4	1	4	2	4	2	5	3	5	4,5*
Market knowledge	4	1	3	1	4	3	4	3	4	4,5*
Communication/Presentation	4	2	5	3	5	4	5	3	4	3
Strategy/Planning	4	2	4	3	4	3	4	3	4	3
Financial	5	1	4	2	4	2	4	3	3,5*	4,5*
Leadership	4	1	3	1	3	3	3	2	3	3,5*
Decision-making	5	3	4	3	4	2	4	2	4,5*	3
Problem solving	5	2	5	3	5	3	3	2	5	3
Teamwork	5	4	5	4	5	5	5	4	4,5*	4
Social media/IT	3	1	3	1	3	1	4	2	4,5*	2,5*
Business planning	3	1	3	1	3	3	4	3	4,5*	4,5*

Values displayed are the statistical mode of the ordinal values provided by respondents, where for For Importance, Ordinal Value of 1 = "Very Unimportant", 2 = "Unimportant", 3 = "Neutral", 4 = "Important", 5 = "Very Important", and for Acquisition, ordinal value of 1 = "To a Very Small Extent", 2 = "To a Small Extent", 3 = "To Some Extent", 4 = "To A Large Extent", 5 = "To a Very Large Extent". *Here the statistical median is taking, since there were only 2 respondents

Discussion

RQ1. What are music students' definitions of career success, as well as their career hopes and expectations?

As can be seen in Table 4, the majority of students (72%) and faculty (73%) defined career success as making a living out of music. This is a strong contrast to the percentage (Students 2% - Faculty 0%) who responded that career success means "to get rich". Similarly, only 7% of students and 3% of faculty defined success as getting "famous". Thirty-eight percent of students defined success as doing something unique, compared to forty-three percent of faculty.

These statistics can be interpreted a few ways. First, the nearly identical percentage of students and faculty who define success as making a living out of music indicates that both groups of respondents share a roughly similar idea of what a successful career means to them. Similarly, they do not respond that success as becoming rich and famous. Originating from Bandura's (2001) Social Cognitive Theory, Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 1994) proposes that goals play an important role in decision-making and self-regulation of behavior – one may wonder then if this definitional common ground may mean the academic environment is aligned with helping students successfully achieving their goals.

SCCT (Lent, Brown & Hackett, 1994) also considers outcome expectations to be an important role in career decision making, such as the choice of whether or not to attend higher education due to career related motivations (Dennis, Phinney & Chuateco, 2005). Referencing Table 5, it is interesting to note that besides teaching (where 46% of students hoped to teach, compared to 62% of students expected to teach), an equal or higher percentage of students hoped to be performing music during their career than expected to. The other exception is for those students who responded with a degree of uncertainty and answered "don't know" – for this response, there was a higher percentage of respondents who expected to not know what they would be doing in their career. These findings are consistent with Bennett and Bridgstock (2015), who recommended career preview for music students to provide a more realistic perspective on their potential careers. Similar to this study, Bennett and Bridgstock discovered that hopes tended to exceed the expectations of the music students they studied and often performance hopes were "absent" or replaced with "teaching" or "teacher training" (p. 268). Interestingly, they also found that more students expected to teach than hoped to.

When comparing the career expectations of students' careers from both student and faculty perspectives in Table 6, I note that most of the expectations are roughly similar, with the

exception of teaching and freelance/portfolio careers. A higher percentage of students (62%) expect to be teaching than their faculty (38%) expect them to. While 89% of students expect to have freelance/portfolio careers, 68% of the responding faculty expect the same outcome. The high percentage of students who expect to freelance is indicative, perhaps, that the students already have an idea of the career patterns inherent to a musician's career as discussed in other literature (Bennett, 2009; Miller & Baker, 2007).

RQ2. How do music students and faculty report and rate the perceived importance and of various skills and knowledge for students' careers? How do they rate perceived acquisition of those same skills?

As can be seen in Figure 1, there exists a gap between the perceived importance and acquisition of a variety of skills and knowledge across multiple perspectives. In other words, the respondents consistently rated the perceived importance of skills and knowledge higher than their acquisition. In Figure 1 we cannot observe an instance where the opposite was true and acquisition is higher than importance, however for several skills and knowledge there is a parity (music specific/theory, leadership). From the student perspective, this gap appears to be the largest for sales/marketing, market/industry, financial, social media, and business planning.

On the other hand, this gap appears to be the smallest for creativity, music specific/theory, and teamwork. Part of the social mission of one institute in this study is to give students "a broad competence of performing, creative, and pedagogical skills," (Norwegian Academy of Music, 2019, p. 6). Similarly, another institute included in this study describes its music performance studies as "half part of student work is connected to their main instrument and the other consists of courses that will support performance, understanding of repertoire and the music in its contemporary time. Students develop skills on a professional level [and] a personal artistic expression" (NTNU, 2019). I note that the majority of respondents have come from these institutes. In addition to these stated missions, Watne and Nymo (2017) found that the majority of leaders of Norwegian HME institutes they surveyed viewed music skills as being more important than entrepreneurial skills when considering their institutions' strategic plans for education. The narrower gaps for creativity, music specific/theory, and teamwork skills could be interpreted that these institutes are delivering on core parts of their mission. However, one caveat is that the skills and knowledge category provided to respondents is a bit broader than the skills described by the institutes themselves.

From the faculty perspective, this gap appears largest for networking, financial, and presentation skills. The importance of networking for professional musicians has been the subject of research in recent years (Coulson 2010, 2012), and has been claimed to be an

essential entrepreneurial skill for musicians (Coulson, 2012). Other researchers have shown that networking was the most important need amongst artist entrepreneurs (Welsh, Onishi, DeHoog & Syed, 2014). Considering that both students and faculty regarded networking as “Very Important,” this could be a specific skill which future curriculum or research could address.

As mentioned earlier, it is possible to interpret the findings from many different cross student-faculty perspectives. A limitation in using these perspectives, however, is that the majority of respondent faculty came from one institute. Compared to the distribution of student respondents across all five institutes of HME, this may result in some biased weighting of the faculty perspectives due to concentration in one institutional environment. That being said, while it is difficult to extract a precise meaning from these cross student-faculty perspectives, what is notable is that from whichever perspective one uses to explore the data, the gap appears to be the smallest related to music specific/theory, leadership, teamwork, and decision-making skills.

RQ3. To what extent do music students feel they have learned entrepreneurship through their current study program? What do the subsequently derived EE subsamples reveal when used to explore findings from RQ2?

What does the extent that students feel they have learned about entrepreneurship reveal about the perceived skills and knowledge gaps that are discussed above? While Table 9 is a straightforward presentation of the extents students felt they learned about entrepreneurship, Figure 3 contextualizes these results and tells an interesting story: as students felt they learned more about entrepreneurship, the skills and knowledge gap seems to close and narrow. The converse is true as well: the lesser felt extent of entrepreneurship learned, the greater the gap seems to widen.

Take networking, for instance. Students who felt they learned the least entrepreneurship rated their acquisition of networking skills the lowest; students who felt they learned the most entrepreneurship rated their acquisition of networking skills the highest. The same observation applies for sales/marketing, financial, and business planning skills. In fact, with the exception of creativity, communication/presentation, and teamwork, those who felt they learned entrepreneurship to the greatest extent perceived that they also acquired all other skills and knowledge to the greatest extent.

Table 10 also tells the same story, though it presents the statistical modes of student responses instead of being a graphical representation like in Figure 3. By reading across the financial skills row, one can see that as the extent of entrepreneurship learned increases, so does the

perception of financial skill acquisition. The same is also observed for networking and other skills. This evidence could mean that within those institutes that participated in this study, it is possible an outcome of arts entrepreneurship is a narrowing or closing of this gap.

While there does appear to be some interesting observations between the felt extent of entrepreneurship learned and the perceived importance of various skills (see Table 10) – such as the decrease in importance of leadership and decision-making as entrepreneurship learned increases, or the increase in the importance of business planning – the story is a bit noisier here and difficult to extract meaning from.

One explanation of these findings could be that as students feel they have learned entrepreneurship to a greater extent through their study program, they may indeed be more confident in their entrepreneurial (sales/marketing, financial, and business planning) skills. Whether or not this confidence biases their self-reporting of their possession of such skills, it should be noted that a significant aspect of Social Cognitive Career Theory is the concept of self-efficacy, which is “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). These self-efficacy perceptions are “postulated as helping to determine one’s choice of activities and environments, as well as one’s effort expenditure, persistence, thought patterns, and emotional reactions when confronted by obstacles” (Lent, Hackett, & Brown, 1994, p. 83). Given the challenges and uncertainty associated with the likely careers waiting for the student respondents in this study, SCCT would posit that such self-efficacy would be a benefit to them.

Limitations

There are several limitations to this study. First, these are self-reported assessments. It is possible that faculty might rate the acquisition of skills of their students higher, since they may be concerned with how the results are perceived and how this would subsequently affect the evaluation of their own performance. Only 26 out of 37 Faculty answered the questions about skill acquisition, compared to 37 out of 37 responding to importance questions. Students may be biased to rate the acquisition of skills lower since they may have a change agenda against their institution for some reason and saw this survey as an opportunity to implement such change.

Though the survey had 114 students and 37 faculty as participants, the response rate was lower than expected. One institute of HME had many more respondents than the other four institutes of HME, both due to its size and the ability to distribute the survey through e-mail and official channels. This could have skewed the results to reflect that particular institution’s curriculum and its subsequent impact on student skills development. In addition, I note that

only two student respondents felt they learned entrepreneurship to a very large extent. While it is outside the methods of this study to generalize to large populations and be concerned with subsample sizes, I do note that their responses are influential in the interpretation of the narrowing of the skills and knowledge gap.

Definitions of the skills listed in this survey were not provided to respondents in order to administer a survey which respondents could finish completely in a reasonable amount of time. Though the skills and definitions are derived from comprehensive studies performed by Miller et al. (2017) and Thom (2016), the definitions were not provided to respondents. Thus, it is assumed that the respondents had a generalized and homogenous understanding of what each of these skills meant.

Further, obtaining a list detailing which student respondents had attended particular entrepreneurship courses at the HME institutes in this study would have been a more precise method to examine the relationship between skill acquisition and the extent entrepreneurship was learned. However, such a list could not be obtained.

Finally, this survey was answered by students who were at various points during their studies – whether 3rd year of their bachelors, 1st year of their masters, 4th year of their bachelors, etc. While it is possible this may have some impact on the accuracy with which they can make an assessment about their skill acquisition, this limitation is somewhat mitigated by analyzing the sample of students as a whole population.

Implications for Research and Practice

First, the explorations of data in this study indicate that arts entrepreneurship educators should consider focusing on sales/marketing, market/industry, financial, social media, and business planning, as this is where the skills gap was observed to be the largest. These are broad skill and knowledge areas, and a starting place for arts entrepreneurship educators to learn more about specific skills and curricular options to help students acquire the skills could be within the existing literature (e.g. *Journal of Marketing Education* or *Marketing Education Review*). Further, these types of skills can be developed through curriculum which is either “for” or “through” entrepreneurship (Lackeus, 2015), with the latter occurring through action-based educational programs (Rasmussen & Sørheim, 2006) and the former through in-class simulations. While in-class simulations may help students develop such skills, educators may consider the possibility of taking a more experiential approach to their classes and have students self-direct their learning activities which have real-world consequences and enhance their self-efficacy, such as activities having a direct effect on the student’s own career (Neck & Corbett, 2018; Lent, Hackett, & Brown, 1994). One example of such an experiential activity with direct implications for self-efficacy in arts entrepreneurship has been described

by Beeching (2016), in which music students at Julliard School arrive at their seminar and are given two hours to book a concert in New York City. The exercise is one in “networking, negotiation, resourcefulness, and communication skills” (p. 397).

Second, this exploratory study may be a starting point for future in-depth research in both the context studied in this article and in new contexts. Except for the subsamples, the units of analysis in this study were the student respondents as a whole and faculty as a whole. A possible next step could be to use both existing results and newly gathered results of a sample targeted to specific institutions and study programs. This reissuance of the survey to new respondents could help ensure a sufficient size of such a targeted sample, which is limited given the size of the current dataset. Then, the curriculum, learning activities, learning goals, and lesson plan of these targeted courses and study programs could be studied and used as parameters to further examine exactly which marketing, networking, social media, and financial skills and knowledge that students acquired. The survey from this study could also be sent to other institutions in other cultural, economic, and educational contexts to test whether the perceived knowledge and skills gap is also observed there.

Since this study appears to articulate to a greater extent which entrepreneurial skills are being acquired in arts entrepreneurship education, it would be interesting to further examine the narrowing of the gap I observed. While this study does not causally prove that entrepreneurship directly increases skills, findings reveal there is a shared tendency between the increased extent of entrepreneurship learned by music students and the perceived increase in the acquisition of various skills and knowledge. Further research could be done to understand what was the design of the arts entrepreneurship curricula taken by respondents in this study? In relation to their perceived acquisition of various skills, what aspects of these courses were relevant? What were not relevant? Further, could it be possible to set up a controlled experiment at one or several of the institutions included in this survey? In such a possible setup, pre- and post-surveys could be given to three groups of students: one group that does not take any courses in arts entrepreneurship, one group that does take courses in arts entrepreneurship, and a randomized control group. The pre-survey would be a rating of importance and current level of skills and knowledge before the course/degree, while the post-survey would rate the importance and current level of skills after the course/degree. This type of narrowly focused inquiry could help build a body of evidence to move towards the consensus, accreditation, and standards that some in arts entrepreneurship research argue for (Beckman, 2005; White, 2013).

Conclusion

In summary, this study has presented exploratory data analysis of a survey distributed to students and faculty at HME institutes in Norway. Both students and faculty seemed to be in

consensus as the majority defined a successful career in music as “making a living out of music.” Evidence has been presented that shows students’ expectations for their careers were different from their hopes, and that the majority of students expected to have portfolio careers. Further, it finds that there exists a gap between the perceived professional importance and acquisition of various skills and knowledge as they relate to students’ careers, and that as students feel that they learn entrepreneurship to a greater extent, this gap narrows and closes. This observation may indicate that within this study, increased exposure to arts entrepreneurship education coincides with increased acquisition of the various skills students perceive will be important for their careers. This finding, in addition to empirically drawing a relation between such skills and the more generalized notion of entrepreneurial skills, are new insights for the field. Arts entrepreneurship educators are recommended to consider sales/marketing, market/industry, financial, social media, and business planning as knowledge and skill areas which should be the focus of a curricular offering, though should not overlook the opportunity to implement experiential learning activities that could target the student’s own sense of self-efficacy and personal agency (Bandura, 1986).

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