An Exploration of Music Production

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Introduction

Music production, that is, the deliberate design, composition, and arrangement of musical elements to create a song by which other artists such as singers perform to, has been instrumental in the rise and growth of modern music (Marcus, n.d.). Hip Hop music in particular depends on the work of producers to create tracks and beats in which rappers rap to—producing is one of its cornerstone elements (Tate, n.d.).

Producing has also been a key activity in the development of other popular music forms in a variety of genres ranging from RnB, to dance, to electronic. Production is known to involve both live instrumentation as well as the practice of sampling, which is the cutting and splicing of audio elements from other sources to be reused and repurposed for new music (Marcus, n.d.).

This project is motivated by a desire to learn and understand the activities and processes around music production. The project intends to explore how members of the music community, mainly producers, engage in their work and how their engagement is related to their experiences, motivations, inspirations, relationships, and styles. It also explores the potential difficulties or challenges producers face in their day-to-day activities.

Through revealing a level of the activity contexts of music producers, I will come to understand how different personal or external factors come together to shape producers into who they are. I can then use this understanding to make design considerations that address the challenges or obstacles they face performing their music production work.

This is a new study exploring an entirely new topic and context outside of my prior projects. As an avid music listener, I have been interested in learning about the processes and activities of music producers as well as what occurs within this community of artists and musicians working to produce valued cultural artifacts.

Methodology

This project was conducted as a short survey. Surveys are effective for reaching out to a mass audience quickly and helps to standardize questions and responses. Surveys are effective for doing quick studies with focused goals and aims (e.g. questions that get to the root of a topic or problem).

Survey was designed to be brief—no longer than fifteen to twenty minutes to complete. Fifteen questions were asked; each was short and no longer than twenty words. I tried to be concise as possible. However, because this is a new study topic, knowing what to ask was difficult. I tried my best to ensure there were no vague questions. Questions were also designed to not bias any particular genre or style of music so that I could get the best data from participants.

Questions and rationale:

- **Q1: Describe style(s) of music do you produce.**
  [Text Input]
  Rationale: This question will be used to identify the style of music the participant produces.

Plan for Analysis: Different music styles may point to different production practices. This question will add to that dimension of analysis. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q2: What region are you from?**
  [Text Input]
  Rationale: This question will be used to identify if the style of music produced varies by region.
  Plan for Analysis: Responses will be qualitatively analyzed and examined in relation to music style.

- **Q3: What equipment do you use to produce your music?**
  [Text Input]
  Rationale: Determine if different software or equipment have an impact on practices.
  Plan for Analysis: Results will aim to show general trends of software or equipment usage. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q4: When you first started out, how easy was your equipment to use?**
  1 (Hard to use) --- 7 (Easy to use)
  Rationale: Explore the nature of ease of use and also explore possible difficulties associated with using equipment or software for music production.
  Plan for Analysis: This likert scale question will allow for simple numerical analysis into how participants perceive the ease of use of their equipment or software.

- **Q5: How do you find samples for your music?**
  [Text Input]

Rationale: Have participants describe their practices when looking for audio and music to use in their production. Sample-finding is one of the fundamental practices of music production. I aim to explore it.
Plan for Analysis: This could be an interesting way to see what participants do and how they behave when searching for music. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q6: How often do you search for samples?**
  Rarely / A few times a month / A few times a week / Every Day / Other
  Rationale: Look into how frequency of practices affects overall practices of music production; perhaps even the quality of music produced?
  Plan for Analysis: This question will result in a simple numerical analysis that intends to reveal how often participants engage in their production activities.

- **Q7: Describe your process for determining what samples to use.**
  [Text Input]
  Rationale: Explore the mental model of designing and producing music.
  Plan for Analysis: Understanding the mental and cognitive processes of decision making and how music is translated from tacit knowledge into a product may be useful for analyzing where difficulties occur or otherwise. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q8: What do you think is most important for producing music?**
  [Text Input]
  Rationale: Explore the mental model of how participants think of their activities from a hierarchical, ordered perspective.
  Plan for Analysis: This question will give support to analysis around the broader scope of participant's mental model of their activities. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q9_A: What do you think is most difficult about producing music?**
  [Text Input]
  Rationale: I want to understand what difficulties occur and also potentially explore how participants overcome their difficulties.
  Plan for Analysis: This section may be used for design considerations based on how participants identify the difficulties they face.

- **Q9_B: What would help you overcome your difficulties?**
  [Text Input]
  Rationale: Explore the participant's mental model of overcoming perceived or real difficulties associated with music production.
  Plan for Analysis: Qualitative analysis shall be used to create a relational mapping of difficulties with processes and potential solutions. Deign considerations will be formed with this data.

- **Q10: What motivates you to be a music producer?**
  Hobby / Side Interest / Professional Career/ Enjoyment / Other
  Rationale: Analysis of motivations may lead to insight into variances in practices and activities. This question is also asked because this survey topic is a change from my usual topic of video games.
  Plan for Analysis: Different motivations may, again, signal different practices.

- **Q11: How involved are you in the production and hip hop community?**
  Not involved / Somewhat / Fairly / Moderately / Very involved
  Rationale: Knowing if a participant is involved in the broader context community will be useful for seeing if relationships influence style and practices around music production.
  Plan for Analysis: This question will involve simple numerical analysis of the radio-button responses to determine average community involvement of the participants.

- **Q12_A: How do you distribute your work?**

  [Text input]

  Rationale: Determine how participants share and distribute their work. Sharing and distribution is critical to the "success" of an artist.

  Plan for Analysis: This will comprise a "sharing methodology" section. Also, knowing how participants share their work may be useful for understanding how successful or unsuccessful they are as producers and where they may encounter difficulties. I will have to conduct qualitative analysis and maybe coding on this set of data.

- **Q12_B: How effective are your methods for distributing your work?**

  1 (Not effective) --- 7 (Very effective)

  Rationale: This is a follow-up to Q12_A to explore the effectiveness of the participant's methods for sharing and exposing their work. Larger or smaller audiences may signal different practices in addition to difficulties associated with music production.

  Plan for Analysis: Design considerations may be developed from analysis of responses to this question. Simple averaging of responses will be conducted.

- **Q13: How do you get yourself inspired to produce?**

  [Text Input]

  Rationale: This question seeks to elicit information on the processes or mental model used by participants when seeking inspiration to create music. As artists, inspiration is a very important for performing work one can be proud of satisfied with.

  Plan for Analysis: This question will be analyzed using qualitative analysis to form a broad picture of producers' activities or processes for attaining inspiration.

- **Q14: How long have you been producing?**
  0 - 2 Years / 2 - 4 Years / 4 - 6 Years / 6 - 8 Years / 8 or more years
  Rationale: This question will be used to identify the level of experience of the participant.
  Plan for Analysis: Used to identify the general demographics of music producers and their relative experience. Perhaps one can look at the differences in practices between experienced and less experienced producers.

- **Q15: Any comments, concerns, or feedback about this survey?**
  [Text Input]
  Rationale: This last question is to help identify problems or issues with the study design that may be encountered on a participant basis.

Selection Criteria

Participants were selected on the basis of whether or not they were producers. Ideal participants could be anyone who produces music as amateurs or professionals or people who produce as a hobby. These participants could be from anywhere in the country and could have varying involvement in the broader music community. Participants must also have internet access in order to use the survey. Criteria for selection were kept minimal to ensure as many participants as possible were capable of participating.

I asked that potential participants pass on the survey link as to allow for snowball sampling. Snowball sampling, I hoped, would be effective for such a broad community. It would also lighten the load of having to decide which online communities to post requests for my survey.

Recording and Analysis

The survey was hosted and conducted using Google Forms. Google Forms was selected as the ideal surveying tool because of my familiarity with using Google Forms and the relative ease of use it affords. Google Forms also works in conjunction with Google Spreadsheets to store data that was recorded using the form. This makes reviewing data simple as recorded data is presented in a spreadsheet format organized by order of question.

The survey began with a simple introduction outlining and summarizing the project and its objectives. Analysis was conducted via qualitative analysis and coding. Reoccurring patterns or interesting insights were recorded on paper for later examination. Major points were summarized and compiled for analysis.

Ethical Considerations

Anonymity of participants was key. No major personal information was asked. Producers also sample music with dubious legality; protecting their work and identity is critical to understanding their work processes. I did not ask for specific sample names or sources. This is called "Sample Snitching" within the community, and it is a practice that is frowned upon by producers and artists (Fleamarketfunk, 2014). If the identity and integrity of participants were not protected, record companies could use my data to seek litigation against artists.

Results

The survey was posted to a number of Facebook pages, shared with known contacts, and posted on target community forums. Twelve participants responded over a week-long period. A diversity of responses was recorded, with participants ranging from inexperienced amateurs to experienced professionals. With only a few responses recorded, much less than anticipated, analysis of results will remain grounded in the data recorded.

Experience

For such a small sample, there was a fair range of experience levels distributed among twelve participants. Five out of twelve participants have produced for 2 to 4 years. Three participants have been producing for eight or more years. Each of the other categories of experience had only one participant. The majority of participants sampled had moderate to high experience as producers (see Figure 1).

Experience with producing	Less than 1 year	1 – 2 years	2 – 4 years	4 – 6 years	6 – 8 years	8 or more years
Number of participants	1	1	5	1	1	3

Figure 1. Range of experience levels among twelve participants

Regionalities

Majority of participants were from the Seattle or the Pacific Northwest (10 of 12). One participant was from Southern California, while another declined to state what region they are from. Regionalities appeared to have no correlation with other factors.

Genres and Styles

Participants work in a broad range of genres such as Hip Hop, Dance, Experimental, House, Industrial, Electronica, Chillwave, Rock, and Soul.

I tend to lean towards the hip-hop genre due to being very influenced by it and many of the samples i use fitting the hip-hop mold. I have tried producing other genre's such as rap, electronica, and chillwave (P1).

Half of participants (6 of 12) worked in two or more genres. Hip Hop was the most common genre of music shared among participants (6 of 12) with some form of

electronic music as the second most common (4 of 12). The remaining participants performed in other niche genres.

Tools and Instruments

Participants used a mix of digital and analog tools and some instruments to compose and produce their music. All participants used some form of digital audio workstation software (DAW) such as Fruity Loops, Garageband, Ableton, Reason, and Logic. Some form of MIDI (Musical Instrument Digital Interface) tool was used by half of participants. Some participants used acoustic guitars and keyboards along with condenser microphones, digital track recorders (known as VSTs, virtual studio technology), and audio mixers. One participant even mentioned using a tape recorder "from time to time."

I own a few midi controllers, a few synthesizers, and I use both Ableton and Fruity Loops along with a variety of VSTs. I also record with a digital 8 track and a tape recorder from time to time (P6).

The average difficulty participants experienced with these tools when they began producing was measured at 2.92 on a scale of 1 to 7.

Sampling Activities

Participants find audio samples from a variety of sources: hearing songs on the radio or in public spaces, CD tracks, music posted on YouTube, and Google searches. One participant, P1, stated they use an audio search tool called Shazzam to search for music they heard between their day-to-day activities.

I once even heard a song playing in Nordstroms that i knew would be a killer sample. So i immediately took out my phone and shazamed it to find out what song it was. I was quite proud of that sample (P1).

Other participants created their own samples through instrumentation or other forms of audio recordings they created themselves.

Participants' frequency of sampling activities was distributed across a range of values. Most participants (5 of 12) stated they search for samples "a few times a week." Four participants stated they rarely search for samples. Two participants stated they search "a few times a month." No participant stated they perform searching activities "every day." One participant (P1) stated they are "semi-retired" (See Figure 2).

Frequency of searches	Rarely	A few times a month	A few times a week	Every day	Other
Number of participants	4	2	5	0	1

Figure 2. Range of sampling activities

One participant (P11) stated they do not sample, while another (P9) did not state how they acquire samples. Both these participants denoted their sampling frequency as "rarely."

Participant's processes for selecting and arranging samples to produce actual music depended on a variety of factors: the quality of a sample, the clarity of a sample, the time signature of the sample, or how often a sample is used. Most participants answered that they simply "had to like it [the sample]" or the sample "caught their attention" and was "catchy."

It generally has to be in 4/4 time, first off. And I just have to like how it sounds. Also, it can't be something someone has used before (P3).

A sample's frequency of usage (related to originality and "freshness") was a recurrent theme among multiple participants.

Other participants stated their process for selecting and composing samples was a "mix of trial and error." Other participants as noted earlier (P9 and P11) do not sample and instead make their own audio content.

Important Factors

Participants were asked to identify factors they felt were important in their sampling activities. Their responses were also diverse. Participants felt the most important factors or "things" about music production revolved around: having inspiration, taking risks, exploring emotions and human relationships, formal music theory skills, enjoyment, being creative, adhering to standards of quality, and pride in one's work.

CREATING. creating is the most important thing. and using those creations to say shit i cant say in words (P2).

Some participants listed multiple factors, others only responded with one factor. Fun and enjoyment was a common theme between some participants (P2, P6, P11). Although some participants produced for a living, money or financial gain was never listed as an important factor.

Difficulties with Producing

Participants also described a diversity of critical difficulties around producing. Finding good samples, ensuring originality, learning and understanding equipment, finding the motivation to finish a song, finding an audience, a lack of technical skills, and a lack of appreciation were among the standout difficulties. Originality was a difficulty shared between multiple participants (P2, P5). Participants who had moderate to high levels of experience mentioned originality and finding inspiration as the most common issues. Participant 10, who had less than one year of

experience in production, encountered a lack of technical skills as their primary difficulty. In short, each participant prioritized unique difficulties, with some correlating with their level of experience or otherwise.

Overcoming Difficulties

To overcome difficulties, participants discussed a variety of potential solutions. These solutions involved finding a community, being unafraid to try new things, being pushed and motivated by others, engaging with other producers, looking for resources online, establishing a smoother workflow, and getting paid for work. Other participants are looking for formal technical and artistic learning experiences as well as quiet spaces to work as to not disturb others and to maintain concentration. The desire for collaboration was to be a common theme among some participants (5 of 12 participants).

Motivations

Participants were asked to select a number of motivations for their production work. These motivations were listed as follows: career, enjoyment, side interest, hobby, and other. In total, twelve participants responded with 28 occurrences. The numbers of repeated occurrences for each motivation are listed in Figure 3.

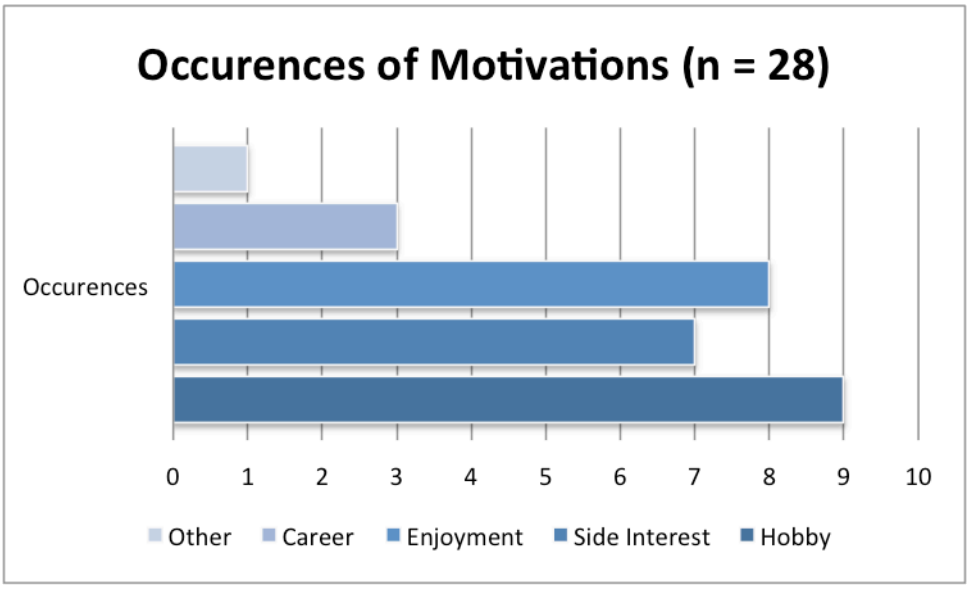

Figure 3. Frequency of occurrence of motivations among participants

As observed, music production as a hobby was the most common motivation among 9 participants. Enjoyment was the second most common at 8 participants, and side interest was third at 7 participants. Multiple motivations could be selected and many participants chose to identify with multiple motivations. One other motivation, "uniqueness," was identified. Music production as a hobby was often selected in conjunction with enjoyment and side interest. P3, a professional producer, identified with all four of the main motivations.

Inspiration

Participants had a range of inspirations for producing their music. Many of these inspirational sources related directly to factors participants felt to be most important for music production. Emotional experiences, life experiences, and human relationships were highly valued as sources of inspiration and motivation to produce. For some, inspiration was a random experience. For others, inspiration came through careful training and constant involvement with music. Constantly listening to music across diverse genres and exploring different forms was important to a number of participants. Hearing different sounds and songs coming together in their mind was an important source of inspiration for P4. For some participants, inspiration came through simply relaxing. P9 described the need to have a moment: *Be in the right place at the right time with the right people.*

Distribution Methods

Distributing music is key to a producer's success. Participants largely use online web services to host and share their music to a wide audience. Soundcloud, Facebook, Bandcamp, and YouTube were some of the most common online services mentioned. Some participants even used vinyl records, CDs, and mixtapes in their methods. The most common method used was posting music on Soundcloud.

Participants were also asked to rate the effectiveness of their distribution methods for sharing and exposing their work. On a scale of 1 to 7, 1 being least effective and 7 being most effective, the average effectiveness of the distributions methods used by

participants was 3.67. This may signal that it is difficult to find success and an audience, even in the digital age where music can be accessed from anywhere.

Community Involvement

Participants had varying levels of involvement with others within the music production community. Responses ranged from not involved to very involved. Responses depended entirely on the participants' mental model of involvement (see Figure 4).

Frequency of involvement	Not involved	Somewhat involved	Fairly involved	Moderately involved	Very involved
Number of participants	1	6	2	0	3

Figure 4. Responses to levels of community involvement among participants

Levels of community involvement could reflect both highly experienced producers with established community ties, or less experienced producers who are seeking out community ties. However, in one case, P1, who had eight or more years of production experience and desired stronger community ties and relations described themselves as somewhat involved in the community.

Discussion and Reflection

Based on participant feedback and additional reflection on behalf of myself, the survey design is not without flaws. Some questions did not align with the participants' practices. For example, the survey was noted to privilege the practice of sampling, which is not always performed in music production. Participants 9 and 11, who both either stated they did not sample or skipped the related question,

commented at the end of the study that the survey questions did not necessarily align with their perception of music production.

Production means different things to different people. I'm not sure our definitions match (P9).

In fact, there may be many more facets and key elements to music production that I am unaware of. Future study design should incorporate the results of this study to determine what other practices occur around music production.

Additionally, question 4 was confusing to some. In retrospect, the question, "When you first started out, how easy was your equipment to use?" in the form of a likert scale was not a very focused or relevant question. Although I aimed to elicit information about participants' difficulties encountered when producing music, that task was already fulfilled by another question. A better question would have been: "what difficulties do you encounter with your equipment?" in the form of a short answer response. That way, the question could be more up-to-date and afford participants to input a detailed response that would have elicited potentially more useful data.

A major flaw of this study was its small sample size. Within the timespan of a week, it was difficult to find a significant amount of participants. Participation was low despite distributing my survey on multiple online communities and requesting participants to share the survey further as to allow for snowball sampling. Without a significant sample size, results and interpretation had to remain grounded in the limited, available data.

Also, I had a difficult time trying to determine how to represent the various forms of responses. Choosing to use direct quotes or tables was a challenge of uncertainty. Multi-valued data that were often recorded using questions that allowed participant to check off multiple values. Without statistical software, correlating multiple data

points was difficult, if not impossible. This issue was further exacerbated by the fact that there was a great diversity of recorded responses despite there being only twelve participants. Common themes in responses existed for some questions, but they were far and few in between. With only a week to complete data gathering and analysis, forming a detailed picture of the target community was difficult.

There was also the challenge of summarizing the diversity of text responses. I was concerned that presenting some participant responses in the form of quotes, while revealing some facets of production, obscured others. I was mindful of this issue and was careful to avoid obscuring participants' unique perspectives. Participants also skipped some questions or provided limited answers, which made analysis and formulating results more challenging.

In retrospect, I also feel the question regarding the effectiveness of the participants' methods for distributing their work could have been better. This question is currently presented in the form of a likert scale. A better approach would be to ask the participant to order their methods from most effective to least effective and ask for a brief description of their thoughts.

The diversity in participant responses signals that the music production community is incredibly diverse and difficult to summarize. Participants prioritized different important factors, sources of difficulty, and inspiration. However, this diversity could also be seen as a strength of the study rather than a weakness. With so few participants, I was at least able to gain some unique and valuable insights into the processes and practices around music production. The objective of this study, which was to learn more about the experiences of music producers, yielded interesting results and identified other practices that I did not initially consider, meaning it was successful in that regard.

Implications for Design

Developing community spaces

A number of participants noted the lack of finding good community spaces for collaboration and engagement. Because having community engagement was important for some participants, community spaces that are active and welcoming should be easy to access and find. The music production is diverse and distributed. A coherent community hub would ideally help producers find others with similar interests and related skills in which to share and develop.

Tools to support production processes

Through the work of this study, there may be other tools that can be designed and developed to support producers' work processes and activities. An application similar to Shazzam to search for and record audio clips encountered in day-to-day life may be a great tool for future work (Shazzam, n.d.). Recognizing that inspiration to create music may be a random experience, developing ways to track the organization of thoughts and ideas on demand may be an effective tool for translating tacit musical thoughts into actual music.

Tailoring workflow for individuals

Because of the diversity and general uniqueness of responses regarding difficulties encountered by each participant, aligning solutions with participants' workflows might have to be a tailored process unique to each individual and their idiosyncrasies. One participant mentioned finding an optimal workspace as a challenge to their work. This issue can be best solved through a tailored design process for that participant. That participant's requirements for their spaces can be researched and evaluated as to form further design recommendations. A tailored workflow may also include processes facilitated by existing technologies and tools such as Shazzam.

Access to resources and training

Participants identified a need for resources and skills for music production. There are many online resources for learning the in's and out's of music production. However, whether or not these resources are effective or easy to learn is uncertain. Recognizing this uncertainty, conducting a study on the effectiveness of these resources may be a valuable endeavor.

Sharing and distribution

Participants' methods for sharing music were rated as relatively ineffective. A better way to share and distribute music with a more guaranteed audience could be envisioned though further research. Perhaps an easier way to share draft music with friends and others using a simple to use smartphone application would be effective for getting attention through taking advantage of a user's existing social networks. However, because of the limiting nature of the related survey question on participants' responses, this design consideration is also limited in its understanding and scope.

Conclusion

As noted before, this study was limited by a small sample size and poorly optimized survey questions. However, it was able to reveal some interesting facets about music production and provided a small window into the larger world of production. The experience gained from this study will be useful for conducting future work into the practices and experiences of music producers.

References

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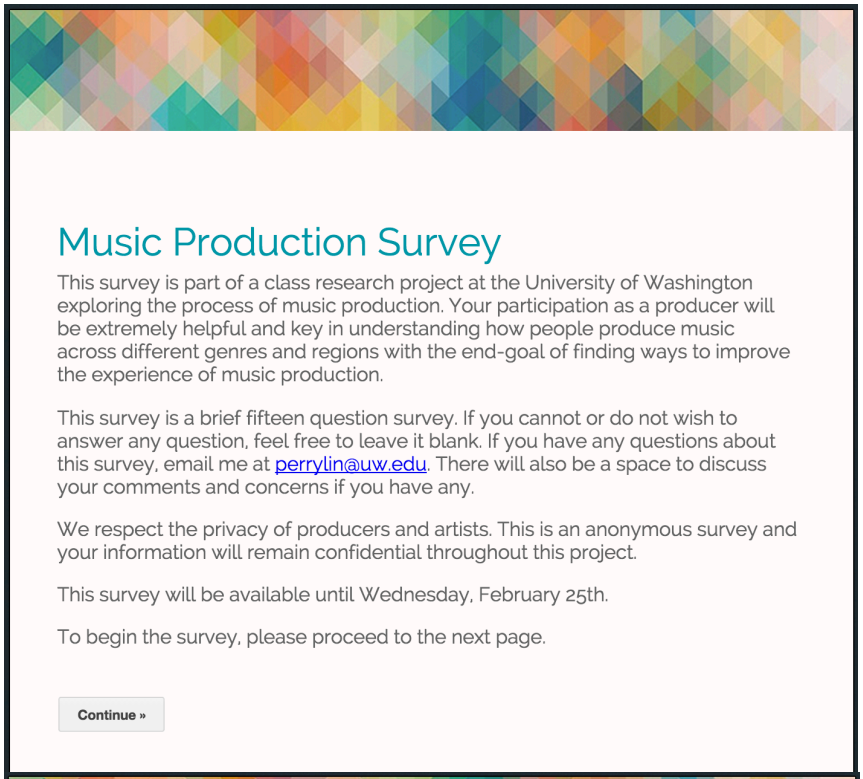
Appendix 1. Survey



Music Production Survey

This survey is part of a class research project at the University of Washington exploring the process of music production. Your participation as a producer will be extremely helpful and key in understanding how people produce music across different genres and regions with the end-goal of finding ways to improve the experience of music production.

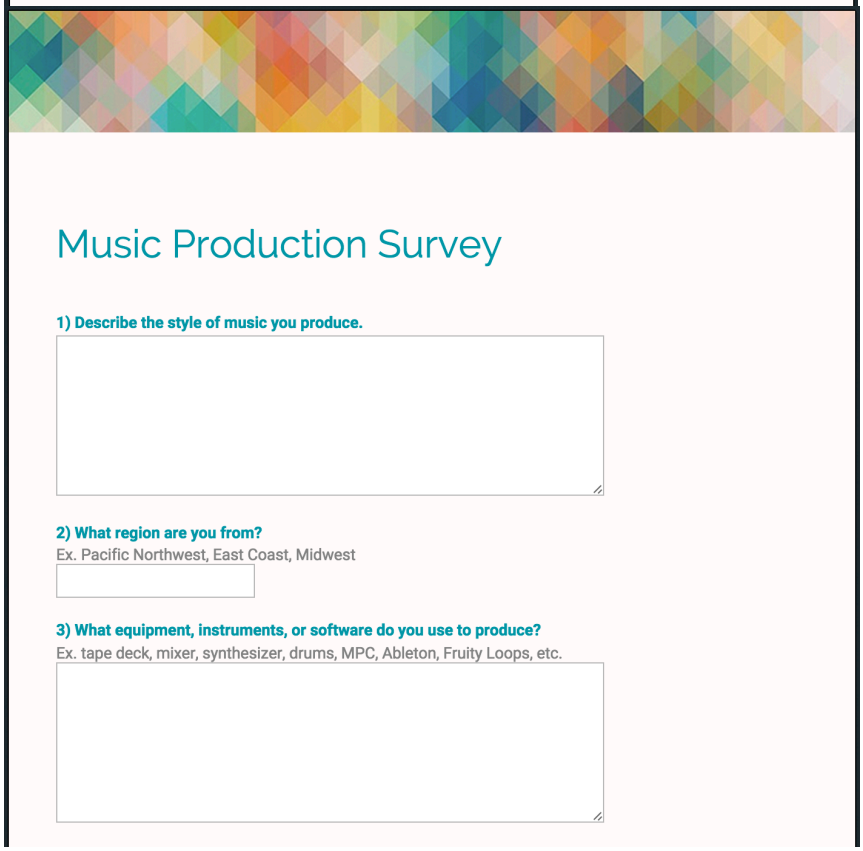
This survey is a brief fifteen question survey. If you cannot or do not wish to answer any question, feel free to leave it blank. If you have any questions about this survey, email me at perrylin@uw.edu. There will also be a space to discuss your comments and concerns if you have any.

We respect the privacy of producers and artists. This is an anonymous survey and your information will remain confidential throughout this project.

This survey will be available until Wednesday, February 25th.

To begin the survey, please proceed to the next page.

Continue »



Music Production Survey

1) Describe the style of music you produce.

2) What region are you from?
Ex. Pacific Northwest, East Coast, Midwest

3) What equipment, instruments, or software do you use to produce?
Ex. tape deck, mixer, synthesizer, drums, MPC, Ableton, Fruity Loops, etc.

4) When you first started out, describe some of the difficulties you encountered.

5) How do you find samples for your music?

6) How often do you search for samples?

- ○ Every day
- ○ A few times a week
- ○ A few times a month
- ○ Rarely
- ○ Other:

7) Describe your process for determining what samples to use.

8) What do you think is most important to you for producing music?

9a) What do you think is most difficult about producing music?

9b) What would help you overcome your difficulties?

10) What motivates you to be a music producer?

- ☐ Hobby
- ☐ Side Interest
- ☐ Professional Career
- ☐ Enjoyment
- ☐ Other:

11) How involved are you in the music production community?

- ◯ Not involved
- ◯ Somewhat
- ◯ Fairly
- ◯ Moderately
- ◯ Very involved

12a) How do you distribute your work?

Ex. Mix Tapes, CD, USB, online forums, Soundcloud, Bandcamp

12b) How effective are your methods for distributing your work?

	1	2	3	4	5	6	7	
Not effective	◯	◯	◯	◯	◯	◯	◯	Very effective

13) How do you get yourself inspired to produce?

14) How long have you been producing?

- ◯ Less than 1 year
- ◯ 1 - 2 years
- ◯ 2 - 4 years
- ◯ 4 - 6 years
- ◯ 6 - 8 years
- ◯ 8 or more years

15) Any comments, concerns, or feedback about this survey?