

Margaret Mahaney

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App for Dancers Dealing with Isolation at Home

STEM Commercialization Plan

Part 1. Elevator Pitch:

An app made specifically for dancers to easily share ideas and communicate with each other would be revolutionary for the arts during a pandemic. Dance requires clear and simple communication whether it is in-person or over the internet. This app will provide a simple way for dancers to keep up with other dancers when they cannot be in a room together.

Part 2. Executive Summary:

Working and collaborating with friends and teachers from a distance has proved to be a struggle for dancers during the pandemic. This distance causes feelings of loneliness and low confidence levels that can easily create a struggle in everyday life. Most dancers have used online video chat systems to try and communicate with each other, but they are not ideal. An app where dancers can easily be social and communicate with each other could solve many problems that dancers face while being alone at home. This app would allow dancers to share posts or ideas with each other and talk to each other while still keeping a distance. Interviews and research conducted on dancers facing feelings of loneliness have shown that communicating with fellow dancers does make them feel more hopeful and confident. This solution has the potential to help the dance community in these hard times.

Part 3. Problem Summary and Proposed Solution:

Dancers need to stay active and have a positive mindset at all times. This can be especially hard when they do not have access to in-person classes or a way to safely meet up with friends. Sure, it may be easy to send someone a text message, but it still is not the same as actually being with the people you enjoy being around. Current dancers struggling with staying positive are also experiencing low motivation and low confidence. This problem is affecting many dancers, whether they are students or teachers. Unfortunately, fixing confidence and motivation issues is not always easy, but it is possible. An app targeted at dancers that is meant to be motivating, easy to use, and social could help eliminate lonely and unmotivated feelings. The app would feature a space to view posts from your friends, a place to see your notifications, and your own profile. In addition, the app will include a direct message space to communicate with other dancers, a spot to see suggested ideas or posts, and a place for you to create and post your own content. This solution could help all of the dancers that take advantage of the app.

Part 4. STEM Concepts and Principles Underlying the Overall Plan:

The proposed solution incorporates concepts from technology, math, color, and design. Donald A. Norman's book, *The Design of Everyday Things*, says that design is an act of communication. Design psychology assists in creating designs that will help the users. Gestalt Principles explore visual perception of elements for the user (Tubik, 2017). The principles used to make the app appealing for the user are similarity, continuation, and proximity. Users connect similar shapes, colors, sizes, and textures to find coherence in design elements by using similarity. Continuation allows the human eye to move from one object to another object by using curved lines, and objects placed close together are viewed as a group by using proximity. These principles will allow design principles of motivation, easy to use, and social actions to be presented in my solution. Color psychology can affect how the user feels when using a product. In Interaction Design Foundation's article on color theory, "How they react to color choices depends on factors such as gender, experience, age and culture" explains that the demographics of the audience can change how they feel about colors (Interaction Design). The colors I would use in the solution would be red, purple, and orange. Red shows confidence, purple shows creativity, and orange shows enthusiasm. The final concept relevant to the application is Math. According to Calli Wright, "Mathematics provide the foundation for the other STEM subjects" (Mind Research Institute, 2018). Coding for apps involves algebra as the app is being tested and created.

Part 5. Commercialization Assessment of the Overall Plan:

Problem, pain point or market opportunity:

During the beginning of the pandemic, before in-person activities returned, dancers needed ways to stay active and keep a positive mindset. The majority of these dancers have dealt with feeling alone, unmotivated, and having lower confidence than before the pandemic. According to research done in My Analytical Annotated Bibliography, almost all of the dancers interviewed experienced a lack of space at home and a lack of communication with their fellow dancers. I learned that although a lack of space can make dancing extremely difficult, having poor communication with your classmates and teachers lead to feeling a loss of support and

inspiration. Since this seemed to be a common problem for dancers, it would be best to create a platform where dancers can easily communicate with each other.

Proposed solution:

The proposed solution uses some kind of app that will allow dancers to easily communicate with each other. The solution would be a platform where the user could post for other users on the app, have conversations, and share things amongst each other. I believe that this solution is the best for the users and the problem; dancers feel unmotivated and alone when they don't have an easy way to communicate with their classmates and teachers.

Target customers and intended users:

The target customers are dancers, mostly in high school and college similarly to the ones interviewed. The focus for the proposed solution would be to have the targeted customers easily communicate with each other and feel a sense of community, even when they can not actually be with each other. High school and college students are good with technology and use it as a key form of communication with their peers, so they would be perfect users.

Competitors:

The competitors of this product would be already existing apps like Instagram or Snapchat. Apps like the two previously mentioned are already highly used by teenagers and college students. This age group primarily uses Instagram and Snapchat for communicating with people, so they are good examples for what the app could be like.

Customer value proposition & competitive advantage:

Instagram and Snapchat are very popular social media platforms, but they do not show specific things for one group of people. Sure you can go on either of these platforms and search things that you might want to see or be interested in, but it is not the same as having one whole app dedicated to what you want. The difference between these platforms and my proposed solution is that anyone can make a social media account and do whatever they want on it (like on an

Instagram or Snapchat account) but my solution is targeted at a specific group and has specific goals of what it wants it to accomplish. A user could open the app for the proposed solution and see or get to what you want faster and easier than you could on a platform like Instagram or Snapchat.

Principal revenue streams expected:

The components required to create my proposed solution are some kind of app making help and the research I conducted before proposing a solution. The solution is an app, so it could cost money to download or have advertisements for the users in the app. Having a free app would be ideal so that more dancers struggling with feeling alone and unmotivated could access the platform and use it to their advantage. Advertisers in the app could also be helpful to the users. Some kinds of advertisements in the proposed solutions are for dancewear, local studios or shows, and other apps that help with physical or mental health.

Principal startup and operating costs expected to be incurred:

There are costs to set up a mobile app for existing iOS and Android technologies to put your app on. The cost of developing an app is never just one solid number. The type of platform you choose to build your app can affect the cost of development, along with how much work or how many special things you plan on putting in it. Apps with web servers, which could include social media apps, could potentially cost anywhere from \$8,000 to \$50,000. This large cost range depends on if the app is developed independently or outsourced to someone else to build. Prices will continue to vary depending on how much detail you put into the app.

Part 6. Science and Technology Proof of Concept:

Review and assessment of scientific literature:

A review of scientific literature revealed several articles that described what dance conditions are like at home. The dancers of American Ballet Theatre dance in crowded spaces at home where they can only see their friends over a screen. According to Marina Harss, “Almost all the dancers are solo, with just a few lucky couples thrown in.” (Harss 2020). The methods used for

dancing at home have worked for a while, but are not ideal. A dancer I interviewed in September 2021 explained that there was so much frustration while dancing at home, so returning to a studio and seeing her friends again was so exciting.

Discussion of findings:

Through research done before deciding to make an app as my solution, I interviewed several dancers and read many articles. The dancers I interviewed struggled with their confidence, staying active, and communicating with fellow dancers while at home. All of this information is from My Analytical Annotated Bibliography created in September 2020. While proposing my problem over the summer before my senior year, I read two articles. The first article was from The New Yorker and written by Marina Harss. She discussed how professional dancers were working at home during the beginning of the pandemic. This article and My Analytical Annotated Bibliography helped me get a better understanding of how other dancers could relate to what I had experienced dancing at home by myself. The second article I read was about dance conditions when returning to the studio. From the interviews I conducted, I learned that some dancers were scared of getting injured when attempting to dance full out again, and the article from Johns Hopkins Medicine helped give some advice on how to avoid these injuries.

Testable hypothesis:

The research led to creating a testable hypothesis. Dancers need ways to stay active and keep a positive mindset during times when they don't have access to in-person classes because dancers felt alone and unmotivated during the pandemic before in-person classes returned. If an app is created for dancers that is motivating, easy to use, and social, then 50% of the dancers using the products will feel more comfortable, confident, and motivated.

Inquiry or design based discussion:

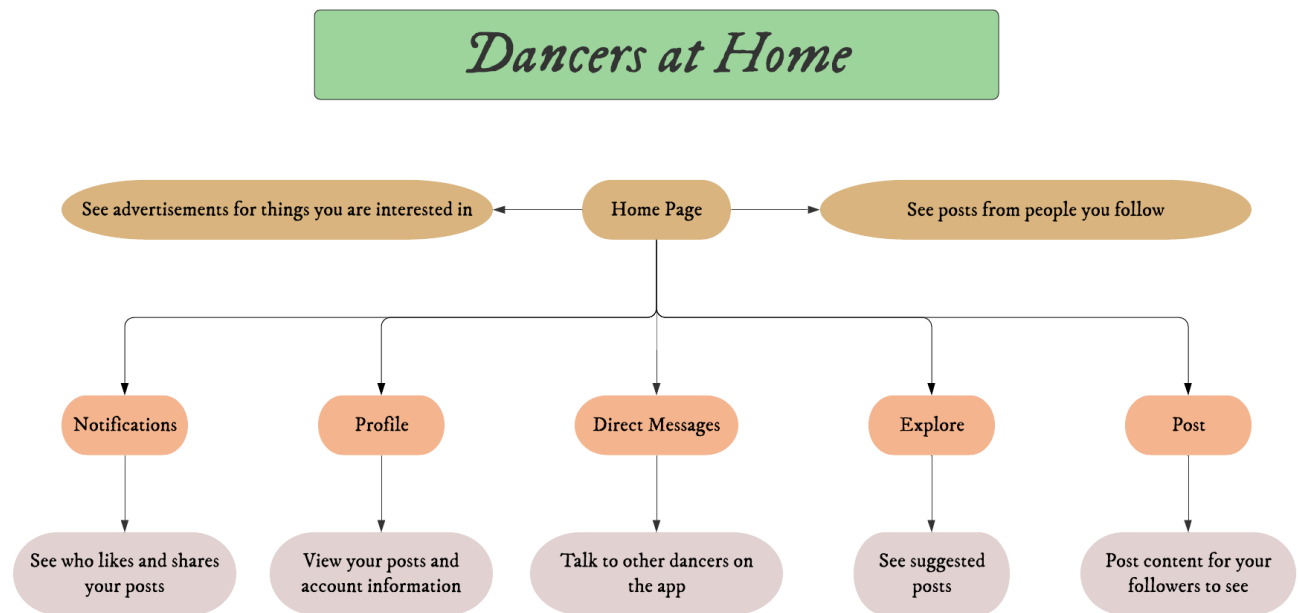
The solution involves an app that is motivating, easy to use, and social. This app would include a home page where users can see posts from people you follow and targeted advertisements. The next accessible page would be notifications where you can see who likes and shares your posts.

After the notifications page, there is a tab where you can view your profile to see your posts and account information. Your direct messages will be after your profile. Here is where you will be able to communicate with other dancers in the app. Next after your direct messages is an explore tab where you can view suggested posts. Finally, there will be a post tab where you can post content for your followers to see.

To fully use and understand the app, I have gone through the five E's of user experience. These are entice, enter, engage, exit, and extend. First, to entice my user to use the app, advertisements for it will be seen on other social medias. Second, my user will enter the app by downloading it from an app store and accessing the app from their home screen. Then the user will engage in the app by posting and sharing content, communicating with others in the app, and viewing content posted by others. Next, my user will be able to exit the app by closing it whenever they wish. Finally, to extend my user's experience, my user will be able to use notifications to see when other people in the app contact them or when someone posts something new that they might be interested in.

Wireframing:

Figure 1



This is my flowchart for how my pages in the app would work together.

Part 7. Acknowledgments:

I am thankful for the following individuals who have contributed to the success of my project.

- The participants who allowed me to interview them for this project.
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