LEARNING & THERAPY GUIDE OVERVIEW
FOR JAM STUDIO VR INTERACTIVE VIRTUAL MUSIC APPLICATION

OVERVIEW

The Jam Studio VR interactive virtual music application (The App) provides users with a variety of life skills, education & therapy opportunities while they are simply enjoying the interactive music and just having fun. This includes a wide variety of physical, cognitive, sensory, communicative, and social/emotional activities and benefits. This skill development can be emphasized and tailored for each user depending on their abilities and life situation, such as individuals with a wide range of special needs and disabilities, children of different ages, individuals undergoing rehabilitation, seniors, and the like. A professional or family member can use the following usage scenarios and activities to create and tailor programs and benefits for each unique set of circumstances and abilities. More detailed Life Skills and Education Lesson Plans, and more detailed Therapy protocols, are available separately via in-app purchases.

APP SETUP

There are a variety of setup choices for the App that can be tailored to the capabilities, goals, and individual circumstances of the user, as well as the planned interaction with a professional, family member, and/or friends. First, the audio can be linked to an external speaker so an observer can hear the music that is being played along with the user. Second, a mirror image of the App can be set up on the computer screen, allowing any observer to watch what the user is seeing in the VR environment. Next, the App includes twelve 3D instrument ICON choices for each song. The number of 3D ICONS displayed can be reduced and their location in the VR environment can be reconfigured thus providing the opportunity to tailor the number of ICON choices and their location as deemed best for each individual user. In addition, there are a variety of background environment choices for playing the App – a simple black background (with or without a sky environment - Skydome), a Cityscape background, a Music Studio Background, and a Sound Stage Background. Each has different sensory, cognitive, stimulation and other effects, so again, the background deemed best for each individual can be chosen. Finally, there is a wide variety of music, music genres, and lesson plans to choose from. After experimenting with the different options, one or more playlists can be created to work best for each individual user.

PHYSICAL

Description & Activities

- The App offers opportunities for many levels of play - beginner, intermediate, advanced play and beyond. The individual can start playing the Beamz through free exploration and move on to creating and recording their own music.
- The App provides a large margin of error. The user can be successful making music with any voluntary or involuntary movement through the large trigger 3D ICON areas.
- Moving to the rhythm of the App sounds can encourage large muscle movements.
- The App can be configured and played in different positions for successful play – standing, sitting, tight location, wide location, etc.
- The App supports gross motor skill development by playing different 3D ICONS across a large area.
- The App supports fine motor skills with its one-shot music notes that can be triggered in short quick hand motions, by playing multiple 3D ICON in a fine controlled manner, or by playing and holding the Apps pulse music triggers.

Example Skills

- When using a variety of songs, the user must swipe the 3D ICON when it is time to include various items in the song. This encourages coordinated and cooperative hand movements.

- Vocalizations can be encouraged while playing the App. There are many sound effects that can be mimicked. For example, the user can mimic sounds from the song, "That's a Rap" like "yeah" or "uh."
- Children and individuals may enhance gross and fine motor planning skills when playing the App.
- Eye-hand coordination is promoted as the user watches the 3D ICON glow and disperse musical notes when triggered.
- Reaching and arm extension are promoted as children can reach out to swipe a 3D ICON and play the App.
- Users can be encouraged to engage in their non-dominant side. For example, using only the left hand for the left side 3D ICONS and only using the right hand for the right side 3D ICONS as opposed to only using the dominant hand. This will strengthen a user's weaker side and promote bilateral coordination.

Sensory

- **Description & Activities** The App is auditorily stimulating with a variety of songs, sound effects, and vocals that vary from popular radio hits to classics and kids' songs.
- The App is visually appealing with exciting 3D graphics and ICONS. There are a number of stunning alternative 3D background environments to choose from.
- The App can be used to introduce different tones, chords and sounds to a wide variety of children and individuals.
- Each song has 12 different musical instruments or sound effects and a background track to hear and explore. Several songs have video and vocal accompaniment as well.
- The App provides a wide volume range that can be controlled by using the 3D slider.
- A broad variety of songs, along with the ability to download many additional educational andtherapysongs for stimulating and encouraging sensory development.
- The life skills educational lesson plans include songs that require the user to guess which instruments they hear.
- Users can be encouraged to explore the different features in the App by choosing different songs and styles of music, choosing vocals and sound effects, etc., which can assist in auditory attention and processing. *Caution: Be sensitive to over-stimulation.*

Example Skills

- When using certain songs, the user must swipe the 3D ICON when it is time to include a sound or effect for the song. This will encourage auditory processing and attention.
- Users may enhance motor planning skills when playing the Beamz.
- Music is an avenue to express individual creativity. Any Individualcan use the App to express themselves.
- Auditory processing is a part of play when the user strikes the 3D ICON and listens to the response.
- Visual processing and tracking can be enhanced when the user is interacting with the App. Triggering the 3D ICON in the VR environment causes a visual response.

Cognitive

Description & Activities
- The App design and alternative immersive background environments are visually appealing and create many areas of interest and awareness.
- Creating music through the App is an inclusive activity that individuals with different levels of capabilities and with or without disabilities can enjoy.
- The App provides an open-ended play opportunity; there is no right or wrong way to play and there are infinite ways to create music.
- The App offers opportunities for many levels of play - beginner, intermediate, advanced play and beyond. The user can start playing the Beamz through free exploration and move on to create their own masterpieces and recording them for future enjoyment and sharing.
- Play duration can be altered according to an individual's needs.

- The App can be used for self-expression in many different facets as music is a way to express individual creativity.
- Music and creativity through instruments can help children and individuals express and release anger and frustration.
- Each song has 12 different musical instruments or sound effects and a background track to hear and explore. Many songs have video and vocal accompaniment as well.
- A broad variety of songs, along with the ability to download additional educational & therapy songs, stimulate and encourage cognitive development.

Example Skills

- The App encourages imagination through alternative music genres, bands, and world famous musicians in the App's broad music and video library.
- Cause and effect learning takes place as individuals swipe the 3D ICONS to see and hear an immediate response.
- Locational learning takes place as individuals play the App and trigger the sounds coming from different 3D ICONS in different locations.
- When using songs such as, "DJ VIP" or "DJ Dubstepper", the individual can trigger the various sounds and effects in time with the beat of the rhythm playing. This will encourage auditory attention and sequential thought processing.
- The App can assist with early literacy skills and word association when children or individuals hear the vocals, instruments and sound effects made through the 3D ICONS and see the corresponding written words on the video screen.
- The App may heighten an individual's self-esteem when users make and record their own creation and can proudly play it back for themselves and others.
- Children and other users can be encouraged to pretend that they are in a band or are a music conductor, etc.
- Math can be incorporated during play by dividing and counting out the beats in the song rhythms- "1 and a 2 and a…" For individuals who are easily over-stimulated, reduce the number of sounds you present by adjusting the number of 3D ICONS in the VR play area. Gradually increase the sounds that are available as the individual's ability and frustration levels permit.

Communicative

Description & Activities

- The App may encourage social interactions through music and singing. While not being in the virtual reality environment with the user, friends, family members or professionals can be next to the user and can see what the user is seeing on a computer screen therefore experiencing the music with the user by using a speaker system instead of the audio headphones.
- Play duration can be altered according to the individual's needs, and can be managed with a friend, family member, or professional.
- Music and creativity through instruments can help children and individuals express and release anger and frustration.
- Music is an avenue for an individual to express themselves through creativity and song - the App has many features and choices to create and record songs that can be shared with others.
- When playing rhythms on most songs, songs will continue to loop until the user turns off the rhythm.

Example Skills

- The App can assist with pre-literacy skills and word association when a user hears the vocals, instruments, and sound effects made through the 3D ICONS and sees the corresponding written sound description on the video screen.
- Vocalizations can be encouraged while playing the Beamz. Suggest songs and sound effects for the user to mimic. For example, the user can mimic sounds from the song, "That's a Rap" like "yeah" or "uh."
- Pretend play can become a part of the App as children and users pretend to be in a rock band or pretend to be a famous musician. This can be encouraged by friends, family members, and professionals.
- The App can help develop and strengthen auditory processing when the user triggers multiple 3D ICONS.

- Following auditory directions is reinforced during play when watching the educational and tutorial videos that play with select songs.
- The user can be encouraged to create their own personal playlist on the App so that all of their favorite music is easily accessible to play and share with friends by taking turns and playing the App with an external speaker enabling everyone to hear the music.
- For individuals that are easily over-stimulated, reduce the number of 3D ICON sounds you set up in the VR environment and choose a simple background environment. Gradually increase the sounds and background stimulation as the individual's ability and frustration levels permit.

Social/Emotional

Description & Activities

- The App allows for open-ended play; there is no right or wrong way to play and there are infinite ways to create music.
- The App offers freedom to explore and create music allowing the user to be independent with choices and length of play.
- The App can be played with a friend, family member, or professional. While only one person can be in the VR environment at a time, the other parties see what's going on in VR on the computer screen. They can hear the music and talk with the user. They can also take turns playing in VR.
- Play duration can be altered according to individual needs.
- The user can express themselves in several different ways as music is a way to express individual creativity.
- Music and creativity through instruments can help children express and release anger and frustration.
- The App may encourage social interactions through music and singing with the participation of professionals, family members, and friends that are present with them.
- The App provides a large margin of error as a user can be successful making music in any fashion by reaching out to the 3D ICONS with their hands.
- Rhythms are automatically looped/repeated giving a user further time to hear, see and retain the song and beats for future recollection.
- Playing the App can be as simple or elaborate as a user's ability and frustration levels permit.

Example Skills

- The App may heighten an individual's self-esteem when they make and record their own creation and proudly play it back for themselves and others. Depending on their abilities, they can email it or post it to their social media site.
- Music is an avenue to express individual creativity, allowing Individuals to use the App to express themselves.
- The App encourages exploration and discovery allowing the user to build confidence while learning.
- Individuals can become more self-aware of how they act and react to others when experiencing music together.
- When an individual records their own song creation in the App, they can wish someone a happy birthday, or send them a personal greeting through email or other means of electronic communication
- Two individuals can play the App together, taking turns with each song, sharing & experiencing songs, sounds effects and the like.
- The individual can create their own personal "moods" playlists in the App so that all of their favorite music is easily accessible to play when feeling different emotions.

Education & Life Skill Lesson Plans

Description & Activities

The Education & Life Skill Lesson Plans, offered separately as an in-app purchase, offers a variety of life skills, learning, and education opportunities in a variety of areas:

- Young children and individuals with special needs are provided with a variety of basic literacy and math interactive learning songs and experiences, such as phonics letter sounds and words or math fractions and counting.
- Individuals with special needs are provided with a variety of life skill learning songs, such as safety signs, automobile sounds, and animal names and sounds.
- By learning songs and games, individuals of all ages and abilities are provided with music fundamentals (e.g. the basics of notes, etc.) and instrument fundamentals (e.g. different guitar sounds, world instrument sounds, etc.).
- Math can be incorporated in several songs during play by dividing and counting out the beats in the song rhythms- "1 and a 2 and a…" For individuals who are easily over-stimulated, reduce the number of sounds you present by adjusting the number of 3D ICONS in the VR play area. Gradually increase the sounds that are available as the individual's ability and frustration levels permit.

Example Skills

- Users can learn basic alphabet, basic counting, and basic literacy and math principles.
- The App can assist with pre-literacy skills and word association when a user hears the vocals, instruments, and sound effects made through the 3D ICONS and sees the corresponding written sound description on the video screen.
- Users can learn to identify the sounds or a broad variety of different instruments.
- Individuals can learn a variety of basic life skills such as safety signs, car sounds, and different animal sounds.