

Hope



Love



Peace



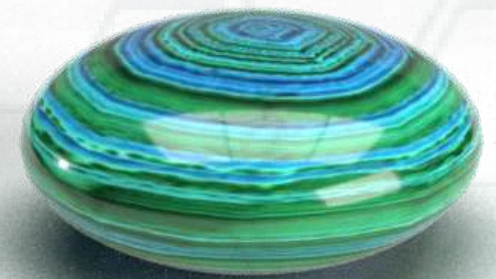
Happiness



Positivity



Kindness



AR Design: Gratitude for Well-being

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Module: Experiential Practice (38907)

Module No. DESN5182M

Introduction

The term gratitude was introduced in English in the 16th century originated from the Latin adjective *gratus*, meaning pleasing or thankful (Emmons and Shelton, 2002). According to Emmons and Shelton (2002), gratitude can be described as a psychological state of appreciation towards life in general for everything that an individual receives be it tangible or intangible, directed towards self or others, human or non-humans.

Empirically, gratitude has been observed as a positive state of mind correlating to pleasant emotions such as, hope, happiness, pride (Overwalle et al., 1995) and contentment (Walker and Pitts, 1998). Studies in the field of positive psychology deeply associate gratitude with increased happiness and wellbeing. A Gallup survey (1998) on American adults and young adults revealed that 90% of its participants responded feeling “extremely happy” or “somewhat happy” on expression of gratitude. Research by Emmons and McCullough (2003) uncovered that consciously exercising gratitude on a weekly basis can increase happiness of an individual up to 25% making their lives more fulfilling and purposeful. This study performed at Harvard found that daily practice of gratitude does not only support the psychological health of people by making them more optimistic and improving relationships but also encouraged them to make more positive choices such as eating well, sleeping well, exercising and so on that contribute to their physical wellbeing (Emmons and McCullough, 2003).

Thus, we can say that expressing gratitude enables people to cultivate a positive mindset, deal with hardships, foster strong relations, enhance their health and have appreciation for life experiences by simply shifting their focus from what they lack to what they have. This thankful state of mind only gets stronger with conscious practice.

A study done at Harvard found that not only has daily **gratitude** practice been shown to help us make more positive choices, like eating well or exercising, it's also **shown to make people more optimistic and improve relationships.**

@DRMARKHYMAN

Idea Generation

Research

There are many tools available to help people consciously exercise gratitude for their personal well-being. After performing an extensive desk research, reviewing several web blogs, e-books and studies in the field of positive psychology, it was found that one of the most popularly recommended approaches to practice gratitude on a daily basis is maintaining a gratitude journal making a note of everything one has been grateful for each day. However, this technique has not been found to be sustainable over a longer period of time because people often found themselves listing down the same things, they were grateful for each day due to which the exercise begins to lose its impact. Alternately, an effective means to practice gratitude has been the use of gratitude rocks or stones.

Gratitude stones are a great way to immediately pull you back in the present by re-channelizing one's thoughts and emotions, also known as flipping your feelings (Hilary, 2021), bringing attention to things that makes one feel grateful for in the present moment. It helps people learn how to count their blessings in the present moment and restore appreciation for everything that is going well in their lives when they find themselves feeling discouraged experiencing negative emotions. They act as an instant reminder to be grateful shifting perspective of self-talk optimistically leaving one feel better about life immediately by simply holding on to them.

Gratitude stones are small and portable and can be easily carried around in a pocket. However, if one does not wish to carry them everywhere they go they can even place them in a space that they have regular access to such as a desk or a bed side table and decorate it with a word or a phrase which has a calming effect on them and reminds them to be grateful. People use these rocks when they feel low, anxious or worried. They simply hold on to the stone and repeat the word or positive affirmation associated with it until they begin to feel calm and then think of three things that they feel grateful about in their lives in the present moment. A mindfulness practice such as exercising gratitude has shown to have a positive impact on people's mental health and well-being.



Creator: tigerstrawberry
Creator: Asya mix
Credit: Getty Images/Stockphoto

Idea Generation

Opportunity

While the gratitude stones are highly portable, for those who derive their positive state anchoring on more than one rock with multiple words or affirmations, it can become cumbersome to accumulate and carry with them everywhere they go. For this purpose, a convenient design solution was ideated involving a mobile AR platform for practicing gratitude by creating virtual gratitude stones while using them in the real world. Further research was carried out on what were the types of gratitude stones that were popularly used by people for exercising this technique. It was found that while gratitude stones can be made of any kind of hard rock, some people encouraged the use of crystals with specific healing properties beneficial for this technique.

Subsequently, we have identified six types of gratitude stones with their symbolism for creating the augmented reality experience:

1. Rose Quartz for **Love**.
2. Aquamarine for **Hope**.
3. Chrysocolla for **Kindness**.
4. Amethyst for **Positivity**.
5. Citrine for **Happiness**.
6. Larimar for **Peace**.

Digital Sketch

A digital sketch using Microsoft Whiteboard was made for the visualization of how users can be engaged in exercising gratitude using the virtual gratitude rocks in the AR experience. Basis the sketch it was easier to identify the scale, positioning, exploration, objects and interactions that needed to be included in this experience (ARCore Documentation, 2021).



DIGITAL SKETCH

Deveopment

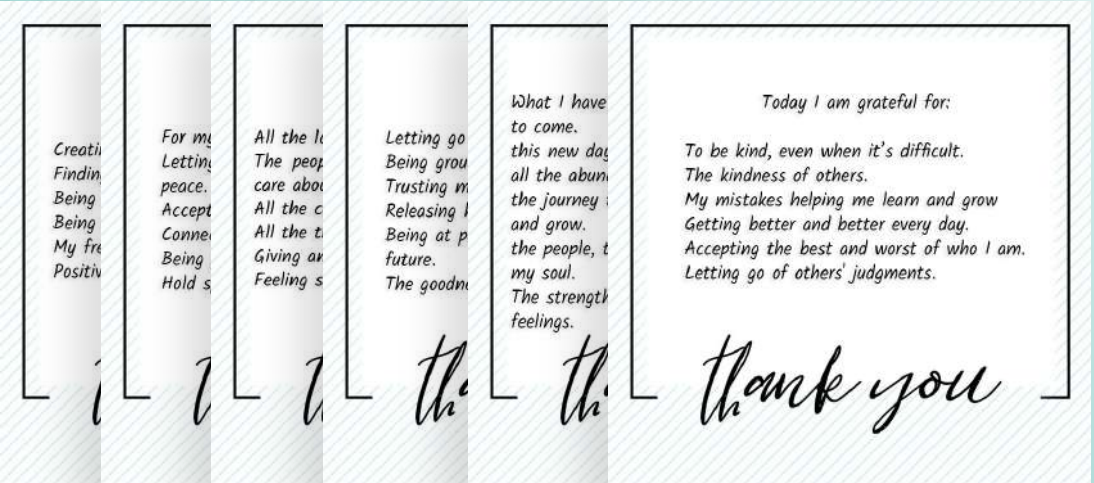
The development of a working prototype for this mobile AR experience was done using Adobe Aero comprising the following tasks:

Design

Firstly, 3D models of all the six unique gratitude rocks were prepared using Adobe dimensions. Reference images were extracted from google images for modelling and materials of the stones. Some stones had a crystal-like texture while some had a pebble like texture and all the stones have been carefully curated to mirror realism as far as possible. Additionally, the symbolism of each gratitude rock was also modelled in 3D text and the same material and textures were applied to the 3D text in line with the stones they were associated with. The 3D assets were exported in formats compatible with Adobe Aero.

Secondly, PNG image files of the gratitude cards consisting of thankful affirmations for each stone was designed on Adobe Photoshop and exported to Adobe Aero.

GRATITUDE CARDS



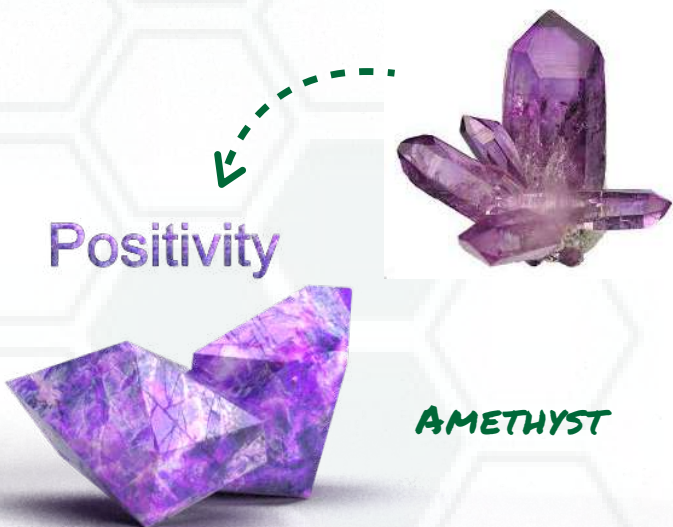
ROSE QUARTZ



AQUAMARINE



CHRYSOCOLLA



AMETHYST

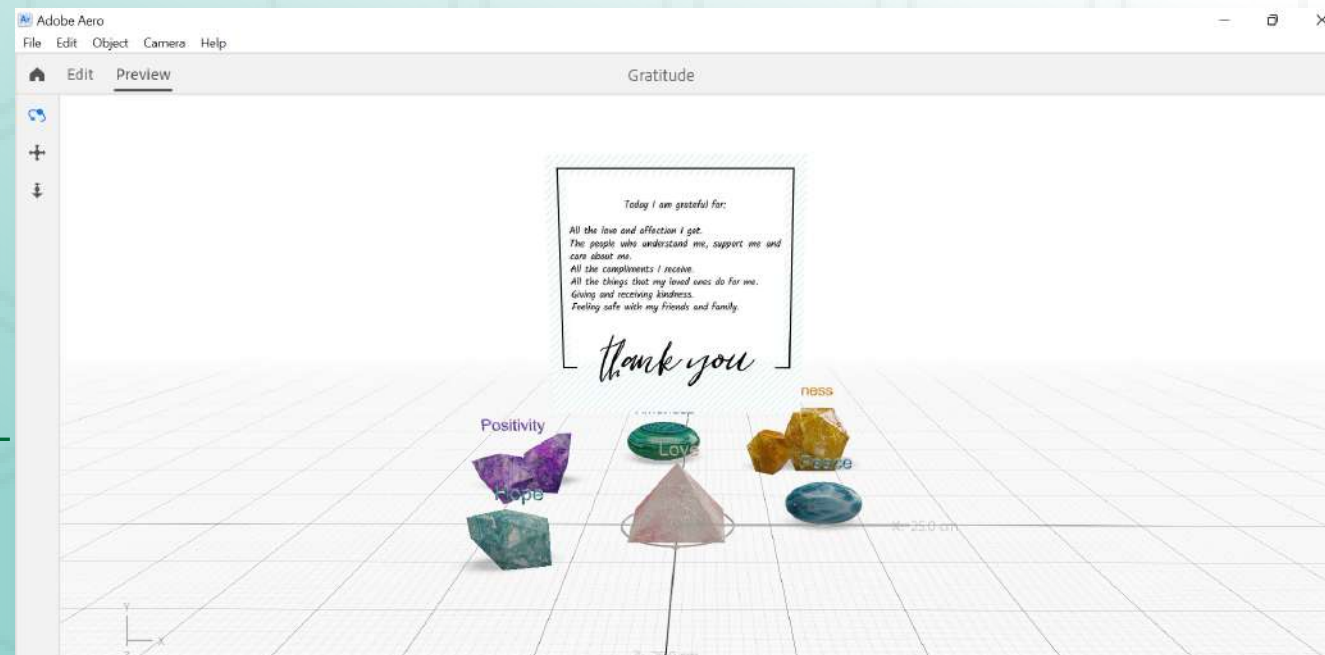
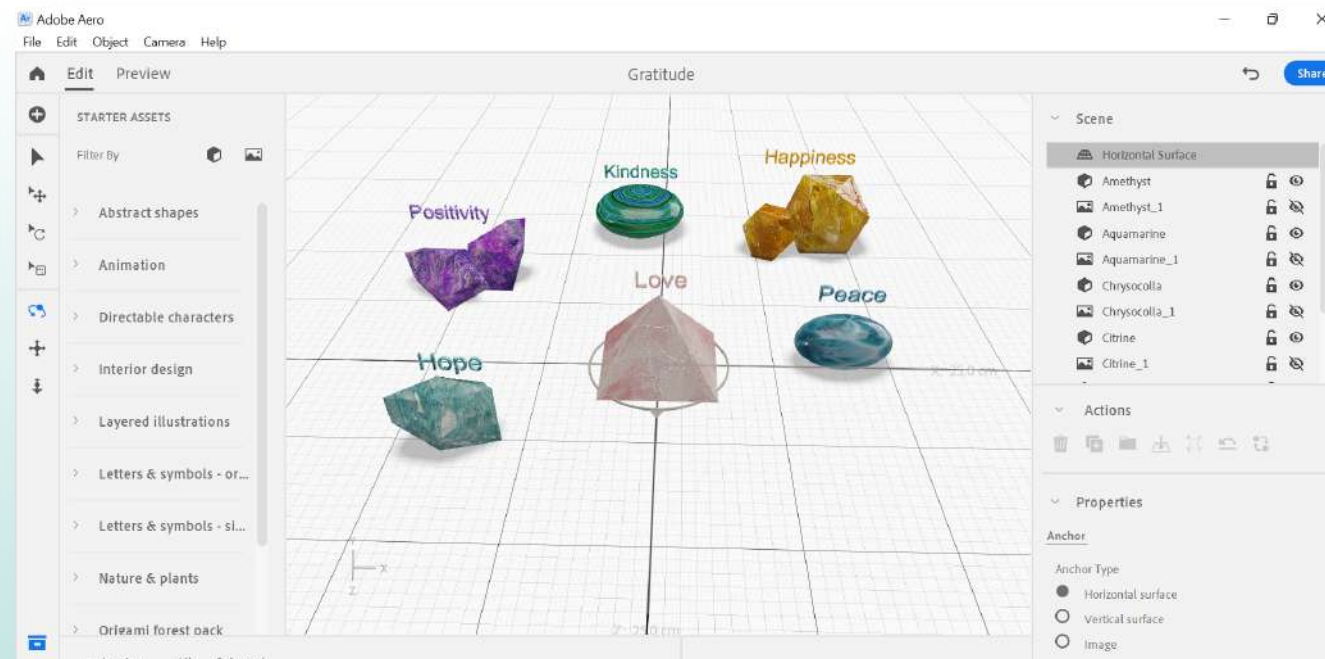


CITRINE



LARIMAR

Development



PROTOTYPING ON ADOBE AERO

Prototype

Once all the assets were imported into the work space of Adobe Aero, each asset was carefully positioned and scaled. A tabletop size AR scene was created on a horizontal surface detection. Subsequently, behaviours using tap triggers were integrated to execute show and hide interactions of the gratitude cards associated with respective gratitude stones for the implementation of user engagement with the AR experience.

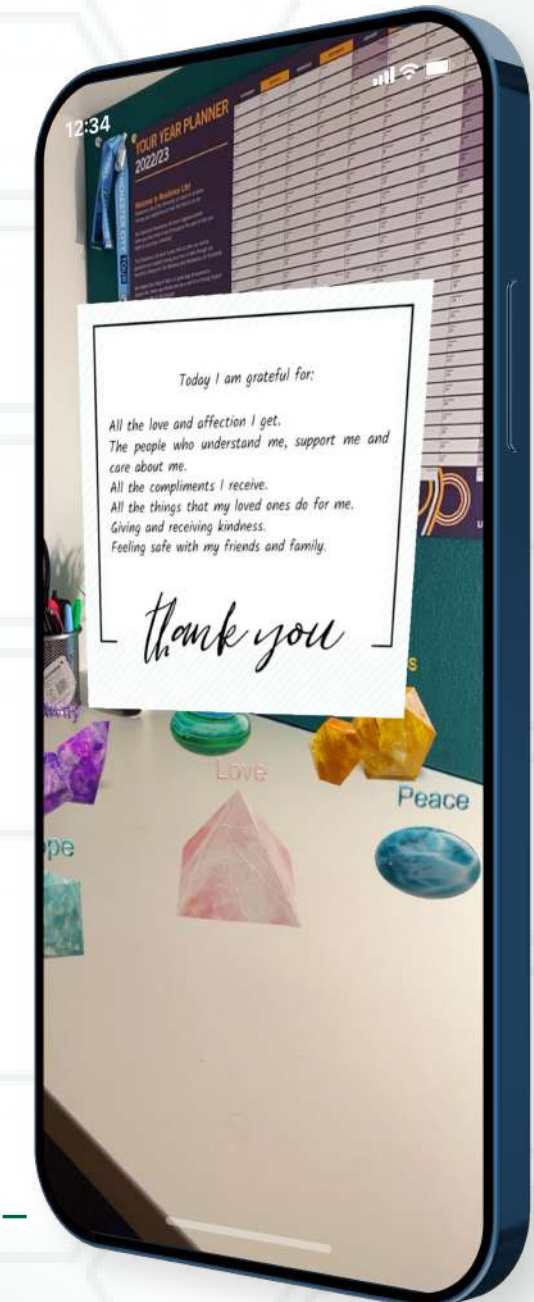
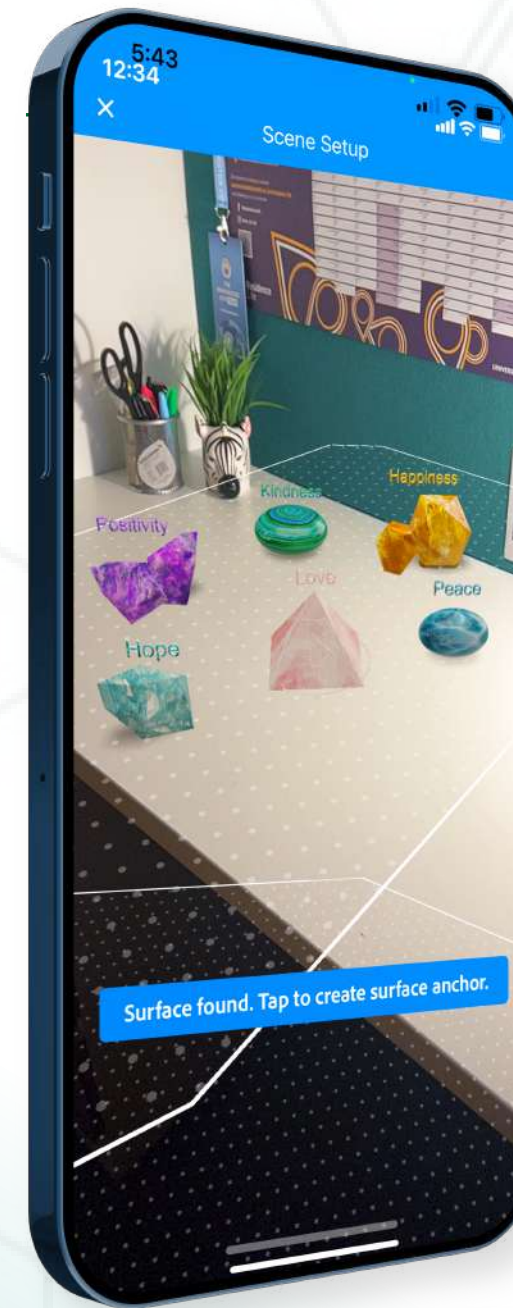
The overall user interface was designed keeping in mind the 10 usability heuristics by Neilson (1994) maintaining the required consistency and standards. Once the prototype was ready, it was shared for testing on mobile device basis which further enhancements could be applied to the design of the AR experience.

Final Outcome

Practicing gratitude is a way to give thanks to experiences in life that has been found to improve happiness and foster a positive mindset. In this work, a mobile based AR experience has been designed to facilitate practicing gratitude using digitally augmented gratitude stones coupled with gratitude cards comprising of thankful affirmations associated with each gratitude stone. This unique experience of exercising gratitude virtually aims to offer therapeutic assistance to those in distress experiencing negative emotions such as fear, anxiety, stress, depression at anytime anywhere by instantly redirecting their thoughts and emotions to visualise and appreciate the goodness of their present life.

This project has been particularly useful in acquiring new knowledge and skill set pertaining to mobile based augmented reality design, its principles and practice (Schmalstieg and Hollerer, 2016) and learning new design tools such as Adobe Aero and Adobe Dimensions. However, a substantial scope for improvement in the UX / UI of this AR experience can be considered. In terms of future improvements, the AR experience can be made more intuitive by prompting the user to input their current state of mind and subsequently guiding them via visual cues towards the gratitude stone that would be most relevant and beneficial to them. Furthermore, the users can benefit more from this experience if the gratitude cards with the positive affirmations were non-repetitive.

[CLICK HERE TO VIEW PROTOTYPE](#)



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