



Clinician's Guide for *Positive Activity Jackpot* Android OS



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Background

Pleasant event scheduling (PES) is a common behavioral therapy element used in suicide prevention, depression treatments, and resilience. It is known by many different names (e.g. positive events scheduling, simple behavioral tasks, self-soothing activities, behavioral coping skills), all of which include increasing pleasant behavioral activities to help regulate emotions (Berk et al., 2004).

It is based on Lewinsohn's (1974) reinforcement theory of depression. This theory postulates that the quantity and quality of an individual's reinforcement-related interactions are linked to feelings of depression. One way to treat depression is therefore to increase the amount of pleasant events one participates in (Lewinsohn, Sullivan, & Grosscup, 1980). Feelings of hopelessness associated with depression are also a key component in suicide. While many factors relate to self-harm and suicidal behavior, difficulty regulating emotions are thought to be a part of it and PES is considered a strategy to help regulate emotions (Linehan, 1993).

More recently, PES has become a component in several cognitive-behavioral suicide prevention treatments (Berk et al, 2004) such as Dialectical Behavior Therapy (DBT; Linehan, 1993). PES is often a part of mid-treatment coping and emotion regulation strategies. While DBT is specifically intended to treat borderline personality disorder, effectiveness studies generally look at rates of self-harm and suicidal behavior as an objective outcome measure (Feigenbaum, 2007; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991). In DBT, PES is comprised of 176 pleasant events. These events range from discrete behavioral events such as: going skating, hiking, sailing, playing tennis or reading a book to other pleasant events more interpersonal or cognitive in nature. These include: playing with children, talking to a friend, listening to others, thinking about having a family, career planning, or reflecting on how one has improved, or thinking "I did that pretty well" after doing something (Linehan, 1993, p. 157-159).

This list of items is meant to help clients decide on pleasant events that they might participate in to build a pleasant event schedule. In practice, clients would select one or several manageable events, daily, to partake in. These events are meant to improve the overall quality of life, not necessarily as crisis management. Further, PES has been found useful with individuals without any mental health difficulties. In a meta-analytic review of behavior activation (BA), of which a primary element of treatment is PES, BA was found to have a significant, positive effect on mood for non-clinical participants as well as those with depressive symptoms (Mazzucchelli, Kane, & Rees, 2010).

While PES is a common therapy tool, the current application, Positive Activity Jackpot (PAJ), does not require clinical training or assistance to use and is not meant as a standalone treatment. This app might be used in conjunction with clinical care although research of its effectiveness is still pending. Therefore, this guide offers healthcare providers assistance using the app, if they believe it would be valuable in conjunction with standard care.

The content of PAJ was based off of the positive event lists created by both Lewinsohn (1974) and Linehan (1993). Both were modified by a subject matter expert from the Department of Defense's (DoD) National Center for Telehealth and Technology based on the appropriateness of each suggestions for a Service Member population.

Installation

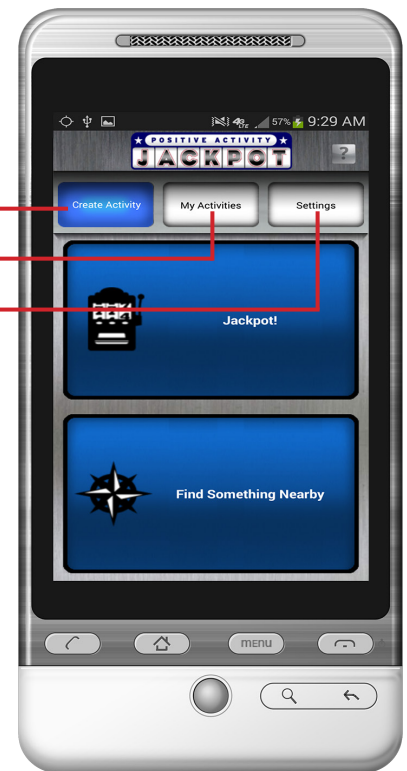
- The app is designed to be installed on a user's phone and can be used for mental health purposes or standard public consumption.
- It was designed to be installed on an Android platform smartphone. Positive Activity Jackpot can be installed from https://play.google.com/store/apps/details?id=t2.paj&feature=search_result#?t=W251bGwsMSwyLDEsInQyLnBhaiJd.
- If you need assistance learning how to install an app, please see <http://support.google.com/googleplay/bin/answer.py?hl=en&answer=113409&topic=2450444&ctx=topic>.

Organization

The app is arranged under three major tabs:

- **Create Activity**
- **My Activities**
- **Settings**

This app allows users to select a positive activity that they might like to participate in. The app allows for the choice of an activity to occur through either random or manual selection (within the *Jackpot* button under *Create Activity*) as well as proximity to the user (*Find Something Nearby*). This app was meant to augment the traditional approach of positive event scheduling with the current functionality available in a smart phone; namely, a stored contact list, GPS, internet access, navigation abilities, phone access, graphics, and the overall ability to enhance motivation through 'gamification' (gamification is the use of game design techniques, game thinking and game mechanics to enhance non-game contexts).

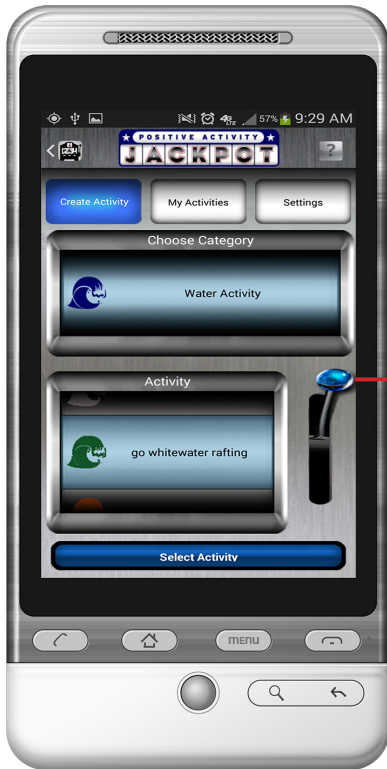


Content Overview

This section briefly reviews all of the features and tools available in PAJ. The app is designed to be fairly intuitive to users, however, these descriptions may be helpful for a more in-depth familiarization.

Create Activity

The main screen of the app is labeled **Create Activity** and allows users to select a positive activity that can be done in two ways.



Jackpot Tab

The first button is *Jackpot*. *Jackpot* is designed to have the app randomly select an activity for the user after they have identified an activity category. There are 11 categories to choose from [Indoor, Outdoor, Water, Thoughts, Free, Road trip (only offered if GPS is functioning on the phone), Physical activity, Shopping, Restaurant/food, Travel, and Miscellaneous]. When the user has identified a category, they can either manually scroll through all the possible activities associated with that category or they can use the **Jackpot arm**. The Jackpot arm is fully animated, allowing users to pull it, or they may simply shake the phone to start the reel turning.

This app has over 381 possible activities; 244 items were adapted from Lewinsohn's (1974) original list of 320 items. The language was modified on many to reflect present tense and similar suggestions were often grouped. The same process was used for the 176 positive activities suggested by Linehan (1993), of which 137 items were included.

Positive events from both lists were eliminated if they seemed inappropriate for the intended end user population of this app (active duty military personnel) and/or eliminated due to feasibility given mobile application characteristics. For example, Lewinsohn had recommended 'criticizing someone'

and 'getting drunk' where Linehan recommended 'gambling'; these were eliminated because they might not be positive or appropriate activities for active duty military personnel. Further, an example of an item eliminated due to feasibility was Linehan's 'going on vacation'. This item seemed unnecessary given the travel category which more clearly laid out types of vacations and the road trip category that directed users to nearby cities with sites of interest.

Some activities are recommended in several categories. For example, 'go to the beach' is both an *Outdoor Activity* as well as a *Water Activity* and is therefore suggested in both. The categories were assigned by a subject matter expert (SME) at T2 as the most appropriate category for each of the specific activities suggested on Lewinsohn and Linehan's lists.

Further, given smart phone's GPS and internet capabilities, a category of **Road Trip** was added by the T2 SME as it goes along with the theoretical foundation for Pleasant Event Scheduling. This category, if chosen by users, allows users to select a location within a 90 mile radius of their current location and pulls up sights of interest in that city under the *Local Options* screen (the Road trip option is only available if, upon app boot up, the phone's GPS is available).



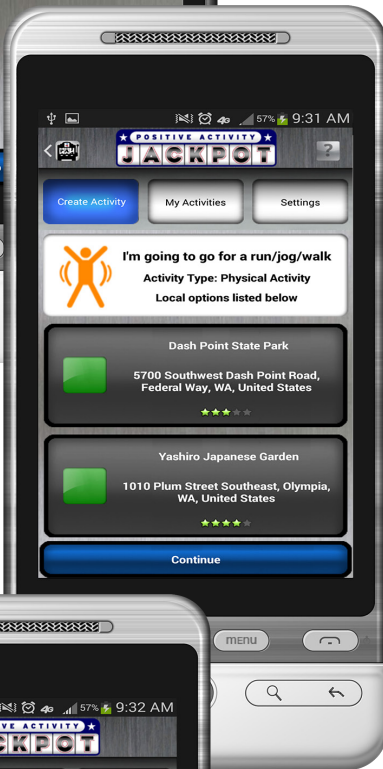
Jackpot cont'd

Once the user has decided on a specific activity, and has clicked the *Select Activity* button at the bottom of the screen, they then progress to the local options screen. This screen gives a summary of the activity. If they press the **Find Local Options** button, they will then see all possible Google options of specific locations that might relate to this event.

Note:

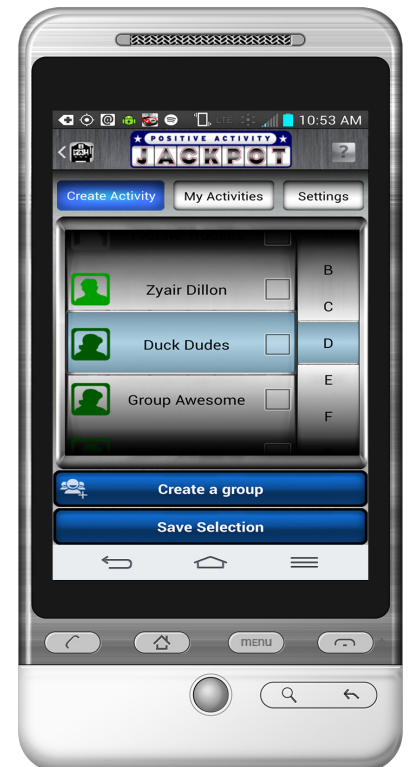
Not all activities have local suggestions. Only events that easily lend themselves to a local address would be recommended. For example, no local option would be given for the activity, 'be with happy people' but local options are given for the suggestion, 'go to an auction or garage sale' since this suggestion would appropriately link to local auction houses, if any are in the surrounding area.

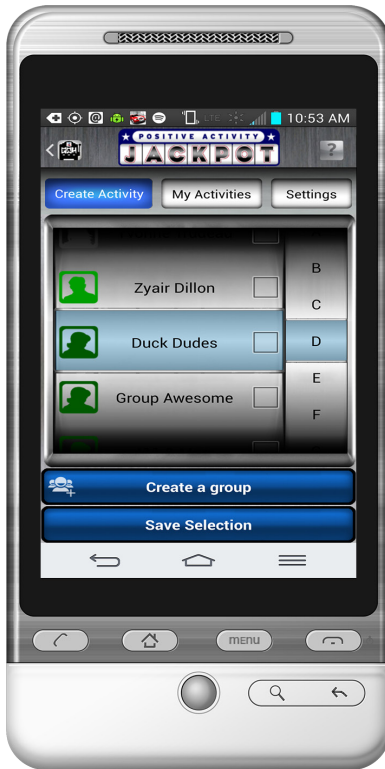
Further, some options will have *Local Options* only if it is appropriate for the category they are in. For example, 'play lawn sports like badminton, croquet, shuffleboard, or horseshoes' are in both the *Free* category and in the *Outdoor* category. A *Local Option* of a sports supply store is suggested only if this event is selected in the *Outdoor* category; if selected when the user is under the *Free* category, a local address to buy such games would not be suggested. If a *Local Option* is not available for a specific activity, these screens will not be available, or seen by the user and they will be immediately directed to the 'Add friends' Screen.



Once a *Local Option* is selected (if available) and the user has pressed *Save Activity*, the user will be directed to the **Add friends** screen. This screen allows users to either add a friend or group to a chosen activity or do this activity alone (called **Solo Activity**).

If they choose to *add friends or a group*, they will see their contacts list on their phone populated with any of the groups they have created within the app.

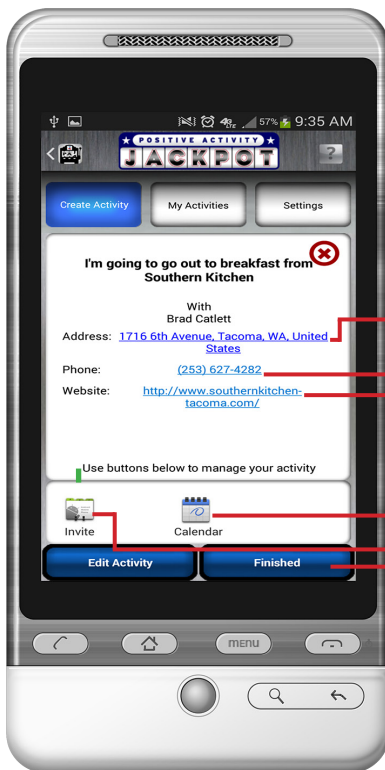
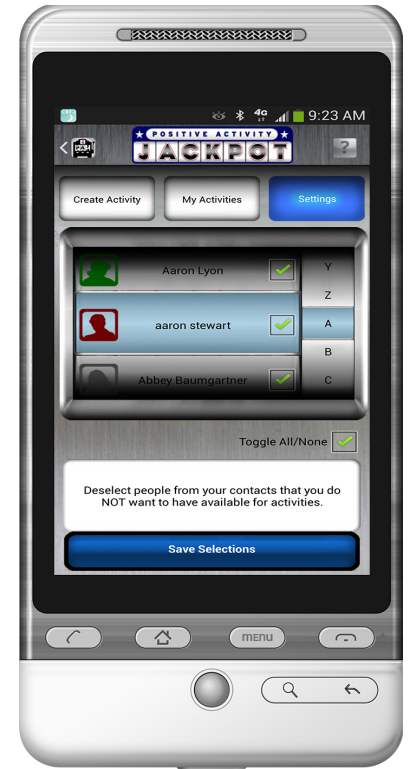




Settings

If they choose to *add friends or a group*, they will see their contacts list on their phone populated with any of the groups they have created within the app.

In this screen, users can also *create a group*. If the user would like to shorten the contact list that is displayed in this part of the activity set up, they can do so under the *Settings* tab, Click on *Contacts*. You can deselect people from your contacts that you do not want to have available for activities! (see right)



Summary Screen

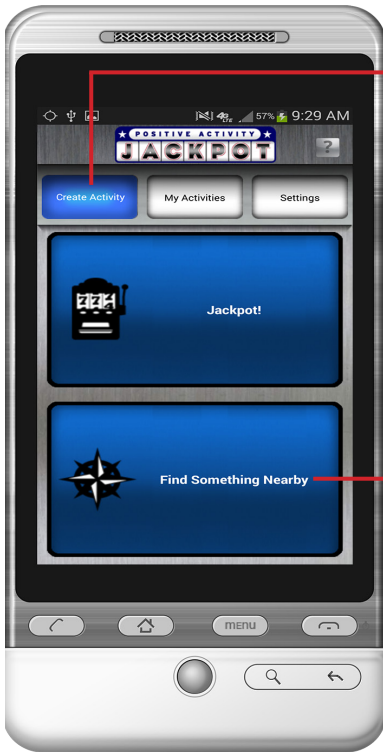
After the user has saved the above information, they will be directed to the final summary screen. This screen summarizes the chosen activity and then gives the user appropriate options to carry out the activity.

Such options will vary depending on the type of event; the full possible range of options include the ability to:

- Use their phone to **navigate** to the local address
- **Call** the local option
- View the locations **website** (if available)
- **Schedule** the event in the phone's calendar
- **Contact** any suggested individual(s) with whom they have chosen to perform this activity.

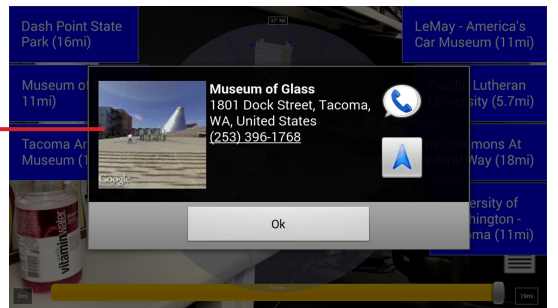
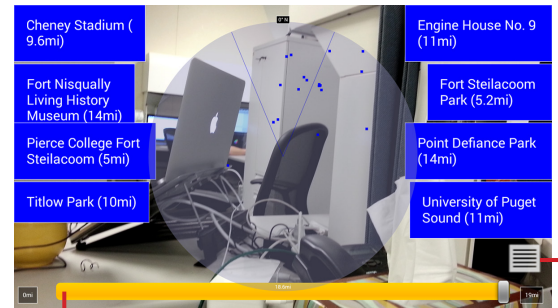
They may also post this activity to social media (such as Facebook or Twitter), if such applications are installed on their phone.

After users select the **Finished** button, they will automatically be directed to the *My Activities* tab to see all past saved activities. This tab's functionality will be discussed later in this document.



Find Something Nearby

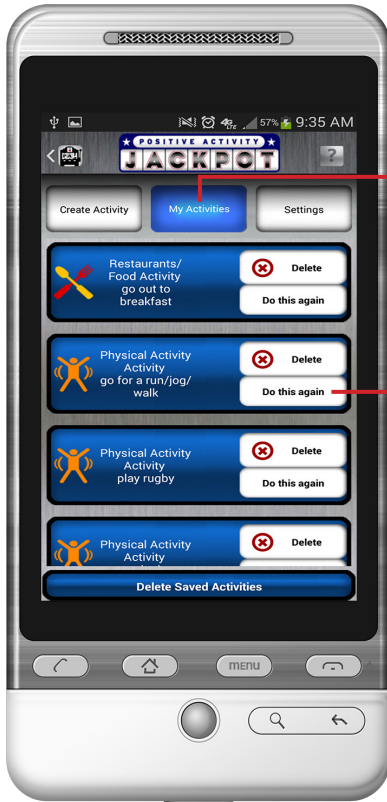
The final option under **Create Activity** is **Find Something Nearby**. This option allows users to engage augmented reality (AR) technology to find a local positive activity. Such activities can vary in distance with the maximum distance of a suggestion being 19 miles. Users have a **scrollable bar** at the bottom of this screen to choose sites nearer or to include those that are further away. When a user identifies an option they are interested in, they can touch that *suggestion text box* and a pop up will appear giving further information on that specific suggestions, such as the **locations**



address and phone number, the ability to navigate to that address or call the listed phone number. The user can also view the augmented reality options in a list or map view. They can see this by touching the **menu button** in the bottom right corner of the screen. The list and map views then only display information on local options with in the distance radius selected in the AR screen originally identified.

Note:

Unlike the options within Create Activity, the Find Something Nearby does not allow for chosen activities to be saved under My Activities. This would have been a difficult technological challenge and wasn't deemed necessary given that recommendations were based on the immediate location of a user and meant to provide options to users that could be chosen at the moment. From a clinical standpoint, this option was meant to help individuals who needed an immediate positive activity instead of one to help stimulate ideas for daily positive activities, thereby generating positive activities in a moment of need.

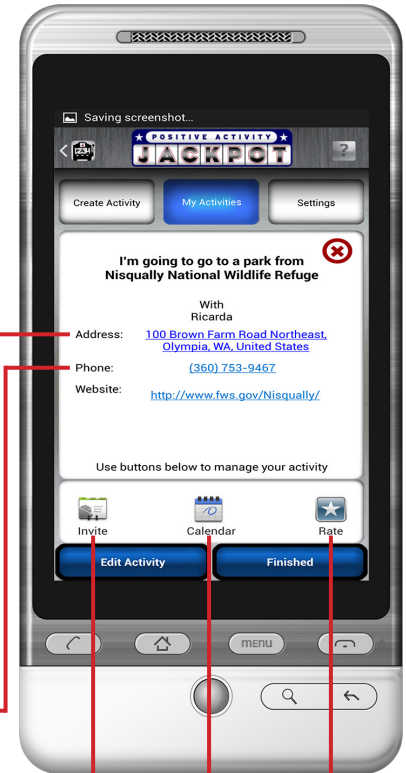


My Activities

The second major tab is labeled **My Activities**. Under this tab, users will find a list of all their previously saved activities. Activities are saved under their respective category and the specific activity. All instances of that specific activity will be grouped and saved together, allowing the user to perform the same activity but with a different local and/or friend option in the future by clicking the **Do this again** button on a specific saved activity.

Once the user has clicked one of the saved activities, they will see all instances of this activity and be able to:

- **Navigate** to a chosen location
- **Call** the location (if selection included a local option)
- **Invite** possible participants via email, text, or social media
- **Schedule** an activity in their phone's calendar
- **Rate** the activity



Note:

Activity rating should be performed after a user has participated in the saved activity. Rating impacts the probability that the specific activity will be recommended at random under the Jackpot tab. Further, a reminder to rate a saved activity will automatically populate on a users phones status bar a day after the activity was saved.

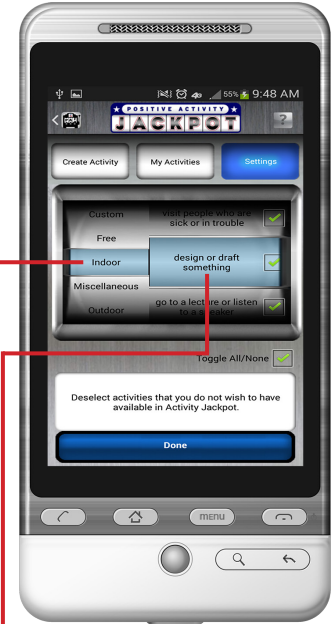


Settings

The app's third major tab is *Settings*. Under this tab, users can *Learn* about the application, change their *Contacts* shown in the app, change the *Activities* offered in the app, create or alter *Groups*, create their own *Custom Activity*, change app *Preferences*, and see the *Tutorial*.

The **Learn** button gives the user information about the theoretical underpinnings of the app and has an audio option.

The **Contact** button allows users to change their contact selection (under 'Contacts') that the app uses when recommending another individual or group with whom to do an activity. This tab has the option to deselect all contacts.



Under *Activities*, users can deselect possible activities the app will suggest by category. Activities are organized by **Category** (seen on the left side of the wheel above) and **specific activity recommendation** (seen on the right side of the wheel above). No major category can be eliminated but all recommended activities in that category could be deselected. Road trip does not show up under this screen since all road trip options are GPS generated and are not saved on the phone as are other major categories and their suggestions.

The **My Groups** button allows users to create or edit groups that can then be viewed in the *Add Friends* option in *Jackpot*.



In *Jackpot* Users can also **Create My Own Custom Activity** in the *Settings*. The new custom activity created here will then be offered under the *Jackpot* button in a new category called **Custom**. All created activities will then populate in the activity section of the *Jackpot* screen.

Under the **Preferences** button, users can manage other aspects of the app, such as audio and vibration.

Lastly, the **Show Tutorial** button will allow the user to see the initial set up tutorial that displays when the user first downloads this mobile application.

