

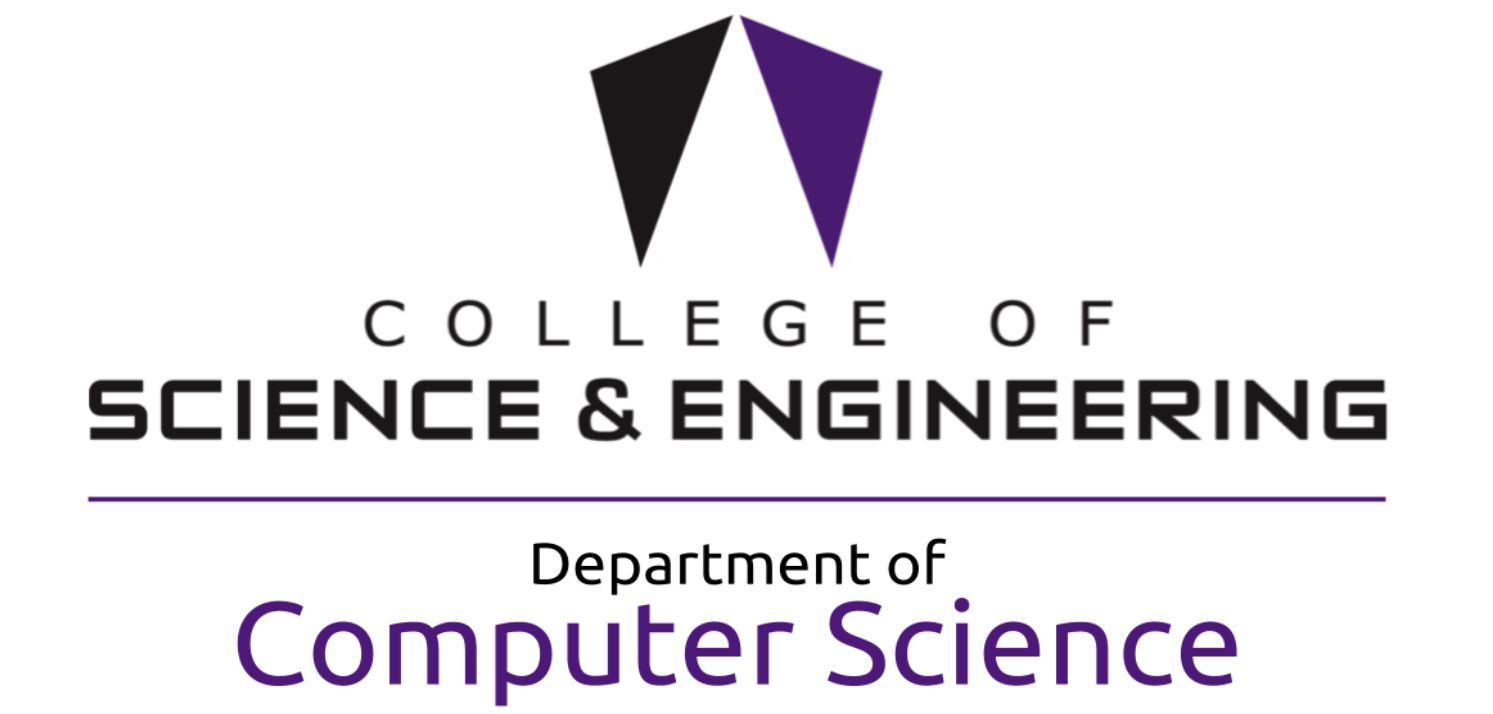


MakeSafe

Developing a Mobile Application to Assist Probationers with Better Decision Making

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Project Sponsors: Wayne Lehman, Ph.D., Jennifer Pankow, Ph.D., Julie Gray, Ph.D., & Grace Rowan, Ph.D., Institute of Behavioral Research



Background

The transition from incarceration to the community is a particularly high-risk period for offenders. During reentry they are more likely to engage in unhealthy behaviors. The Institute of Behavioral Research (IBR) at TCU first developed and tested an in-prison group-based curriculum titled WaySafe, targeted toward incarcerated offenders in their last phase of substance-abuse treatment to improve decision-making when they return to the community. The next step for IBR's research team is the Disease Risk Reduction (DRR2) project with funding from the National Institute on Drug Abuse. Targeted toward community supervision populations, IBR created a self-paced curriculum, StaySafe, to test a decision-making strategy for reducing HIV risks.

Solution

The MakeSafe senior project, sponsored by IBR, developed the StaySafe tablet application for Android™ to meet IBR's design requirements. Major objectives of this project included developing the StaySafe app, saving research data (e.g., user selections, usage statistics, and satisfaction survey responses), and creating a version-publishing application. Titled KeepSafe, this element provides the researchers with sustainability, a means of publishing future versions of the application without further developer involvement. With the IBR's research experience in behavioral science and public health, and the MakeSafe team's software programming expertise, we hope to deliver an effective intervention that guides better decisions and reduces the risk of HIV infection among probationers supervised by the community corrections system.

MakeSafe Software

The software developed by our team includes two applications

StaySafe

- ❖ Application for Android tablets
- ❖ Reads in dynamic JSON content
- ❖ Saves and outputs research data

KeepSafe

- ❖ Standalone Java application
- ❖ Publishes new versions of StaySafe
- ❖ Utilizes JSON structure

IBR's StaySafe Session Structure

All probationers who choose to participate with StaySafe will complete 12 sessions.

Introduction

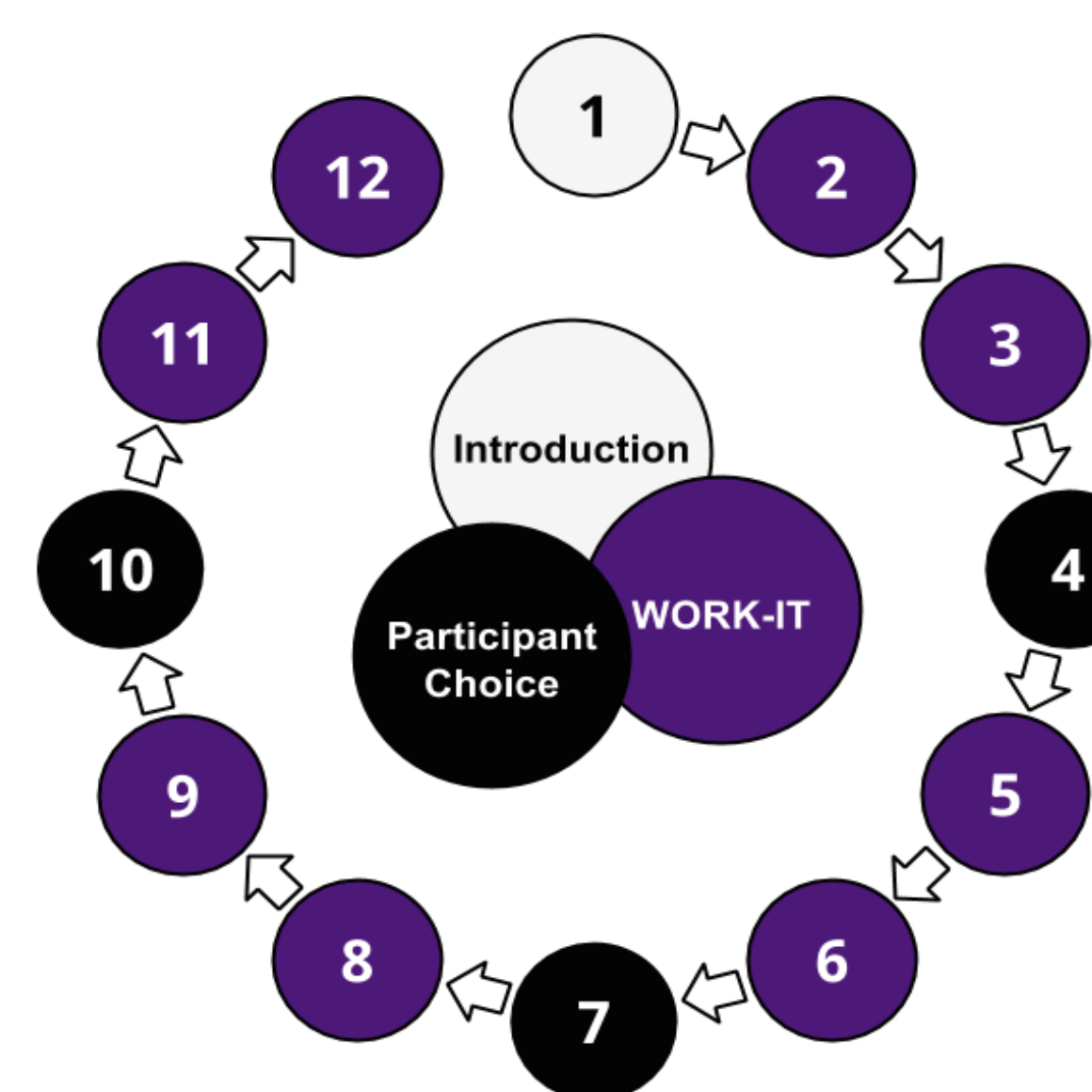
- ❖ Familiarize participant with StaySafe application
- ❖ Visual and verbal cues to engage participant

WORK-IT

- ❖ Participant selects problem choice
- ❖ WORK-IT schema guides better decisions regarding health risk behaviors
- ❖ For more information, see WORK-IT schema (Dansereau, Knight, & Flynn, 2013)

Participant Choice

- ❖ Provides variety within same target info
- ❖ Fun and captivating visual design
- ❖ Presents facts in appealing formats to aid retention



MakeSafe Process

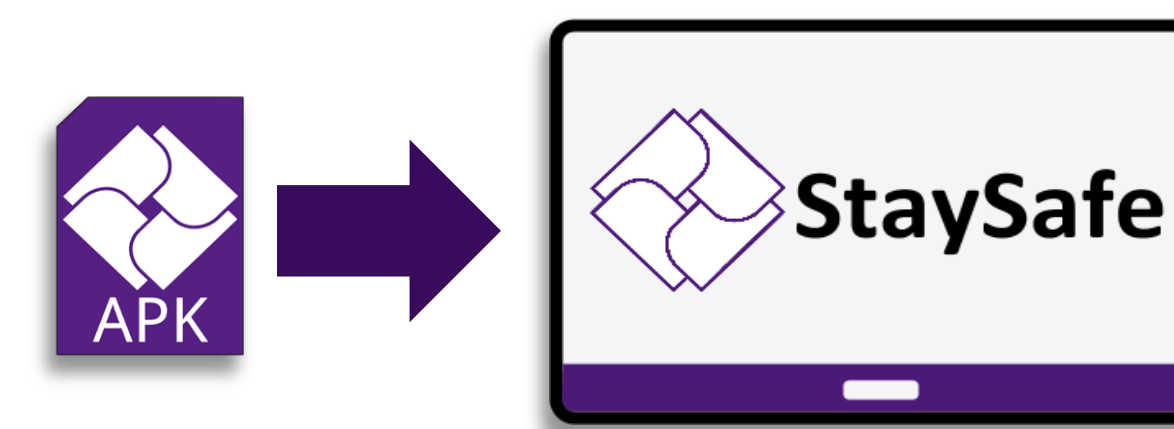
1. Make Curriculum Sustainable

- ❖ KeepSafe begun on demand by IBR for StaySafe version changes
- ❖ Update text through KeepSafe application
- ❖ Combine with audio, video and digital images to produce StaySafe curriculum



2. Setup Tablets

- ❖ Curriculum is saved on tablet
- ❖ StaySafe application package (APK) installed

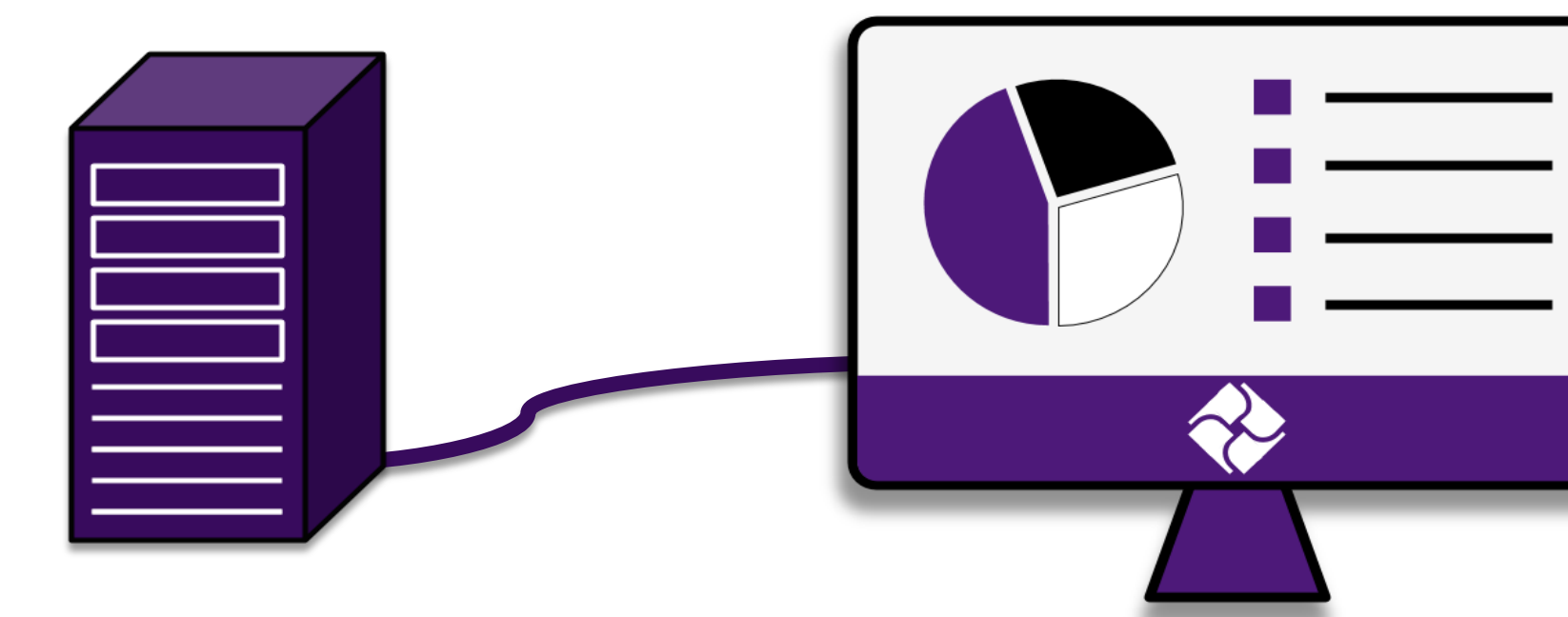


3. Session Execution

- ❖ Participant initiates first session
- ❖ Participant selects from menu and completes one self-paced session
- ❖ User interactions and statistics are saved

4. Data Retrieval

- ❖ Data output repository uploaded manually to IBR
- ❖ IBR merges output into master database for analyses



KeepSafe Application

One of the key goals of this project was to provide the ability for IBR to publish different versions of the application without any developer involvement.

- ❖ All StaySafe content stored in public file system.
- ❖ Content changes do not affect the internal application.
- ❖ A single JSON file is parsed by the software efficiently and without unnecessary repetition.
- ❖ A desktop application with a user-friendly interface ensures that this JSON file is built to specifications.



WORK-IT Schema*

- W What's the problem? Who will be affected by your decision? Who can help with this decision?
- O Think about your Options.
- R Rate your options.
- K Knowing what decision to make.
- I Imagine how you will turn your choice into action.
- T Time to test the results.



Results

- ❖ StaySafe application completed
- ❖ KeepSafe publishing software established for interaction with StaySafe
- ❖ Production deployment in Summer 2015
- ❖ Data production for later research analytics

Acknowledgments

The MakeSafe team would like to thank the staff at the Institute of Behavioral Research for allowing us to participate in their research project. The combined efforts of Dr. Wayne Lehman, Dr. Jennifer Pankow, Dr. Julie Gray, and Dr. Grace Rowan have made this project a truly enjoyable experience. We would also like to recognize the Computer Science faculty for sharing with us their knowledge and experiences that have helped us in our education endeavors at TCU. **Go Frogs!**

References and Copyrights

- *StaySafe intervention was developed by the IBR authors/sponsors.
- ❖ Lehman, W. E. K., Rowan, G. A., Joe, G. W., & Knight, K. (2014). Reducing disease risk behaviors after release from prison. *Offender Programs Report*, 17(6).
- ❖ Dansereau, D. F., Knight, D. K., & Flynn, P. M. (2013). Improving adolescent judgment and decision making. *Professional Psychology: Research and Practice*, 44(4), 274-282.
- ❖ Android OS: developer.android.com
- ❖ Android is a trademark of Google Inc.
- ❖ Java is a trademark of Oracle and/or its affiliates.

StaySafe Overview*

