

Designing Games for the *Apps for Healthy Kids* Competition

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The judges of the *Apps for Healthy Kids* competition will look for five major qualities in the games they review, as stated in the web site – <http://www.appsforhealthykids.com/#enter>:

- Potential impact on target audience
- Quality, accuracy, and content of message
- Creativity and originality
- Potential for further development and use
- Potential to engage and motivate target audience

Here are some tips and questions to help you think about the design of your game, and they are organized under the five qualities. The tips and questions are not official rules of the competition, but they are good guidelines to help you make sure your game will have a positive impact on children's health.

Potential impact on target audience

- Behavior change, not just knowledge gain. Remember that a health game can do more than increase the player's factual knowledge about a health topic. While increasing factual knowledge is often a good first step in motivating a person to improve health behaviors, there are other important strategies, such as changing or improving the player's health-related attitudes, risk perceptions, self-concepts, self confidence, skills, and behaviors.
- Game actions can lead to behavior change. What are the specific actions that the player will have to take to play your game? Will those actions lead to changes in the player's knowledge, attitudes, skills, or health behaviors? How will that happen in the player? Make sure you have a clear idea in mind about what the player will do while playing the game or after playing the game, and how that will lead to better health behaviors.
- Consider the social environment. Games can be played alone or with others. And people talk about games when they are not playing them. What will your game influence if the player plays alone or in two-player mode or in multi-player modes? How can solitary game play or social interaction improve the player's health behaviors? Have you used playing alone and/or with others, and the social interactions that can happen with games, in the design of your game?
- Your target users. What subgroup does your game target especially well? Are you aiming for all tweens ages 9-12 or are you aiming more specifically for one or more subgroups? Subgroups might be identified by age, gender, cultural background, health literacy level, academic ability, geographic location, current level of nutrition and physical activity, current health status, and/or other characteristics. Does your game design work well for your subgroup? For example, does it use genres or game mechanics or artwork or language or music or settings or characters that the subgroup likes? Does it focus on social issues or health issues that the subgroup often must deal with? Does it use approaches to learning and behavior change that the subgroup would enjoy and understand? How else might your game be designed especially for the players you have targeted?

Quality, accuracy, and content of message

- Well established, well tested approaches. Does the game change health behavior in a way that is well established and well tested as an effective way to improve health? Does it incorporate behavior change strategies that are known to work well? It would help if you used a tried-and-true approach that is known to be effective. You can find well established and well tested approaches to motivating health behavior change in the fields of health promotion, health communication, health psychology, persuasion, simulation and game design, instructional design, interactive media learning, human-computer interaction, and many others.
- Innovative approaches. On the other hand, innovation can be exciting and impactful. If your game uses a new approach to behavior change that is not yet well established, does the new approach seem like it would lead to better health outcomes? Be sure that you have a clear idea in mind about the kinds of health behavior change you think your innovative game will influence, and how that will happen when the player plays the game.
- Accurate and up-to-date information. If the game provides information, it should tell the player who developed the information, their credentials and organization, and the date the information was most recently updated. Always design a health game with the most current and expert information available.
- Role modeling. Are the health behaviors portrayed by the game characters desirable ones? Are characters rewarded (not just by gaining points, but mainly by getting healthier, avoiding injury and disease, becoming stronger and more skillful, gaining social approval, etc.) when they engage in desirable health behaviors? Do they suffer negative consequences (such as getting less healthy, contracting an injury or disease, becoming weaker and less skillful, losing social approval, etc.) when their health behaviors are not desirable? People of all ages learn by observing, and role models that are appealing and are similar to the player (or that the player wants to be like) are especially influential. Not only do people learn new behaviors from role models, they also learn which behaviors are likely to help them and which are likely to hurt them.
- Cause-and-effect logic. Think carefully about the underlying assumptions in your game about cause and effect, especially regarding health. If players make a choice for their character, does that choice lead to realistic health consequences? For example, does the character become instantly healthy after eating one piece of fruit? Does that convey the right message to the player, or is there a way to show the benefits of healthy eating that will set more realistic expectations?
- Age-appropriate. If your game encourages and models health behaviors make sure those behaviors are appropriate for the target age group to do. Also, those behaviors should be presented in ways that the target age group will understand, so keep in mind their existing health knowledge, life experiences, thinking and problem solving skills, language abilities, reading skills, ability to decode images and symbols, etc.
- Safe. The health behaviors advocated and modeled in the game should be safe ones. For example, if your game portrays characters riding bikes, make sure they are each wearing a helmet and following traffic rules. Or, if you design a game that involves using GPS to go to outdoor locations, what safeguards does your game recommend for tweens who want to venture out to locations they have never visited before? Or, you may decide that no game for tweens should ever encourage them to go to new outdoor locations, so you may decide not to use that approach in a game.

Creativity and originality

- New and fun. There is an art to making great games. Is your game something new and fun, or does it seem like a copy of games that are already available? Are the game mechanics and game challenges compelling and engaging? Will your target population really want to play this game?
- The cool factor. Would kids in the target population think the game is cool?
- The smile factor. Does the game put a smile on your face?
- Intergenerational play. Does your game bring more than one age group together to play? This is not required in the competition but this approach could lead to some great game play experiences and great health outcomes.
- Sensors and technologies. Remember that your game could use technologies that measure movement, steps taken, heart rate, brain waves, or other physical states. It could use the camera that is built into mobile phones. It could use the mobile phone's GPS system. It could use the Internet to send or retrieve information needed to play the game. What are the costs and benefits of introducing new technologies into your game, and are they easy enough to obtain and use that your game would be still be played by many in your target population?

Potential for further development and use

The specific suggestions in this section are not required for the *Apps for Healthy Kids* competition, but it would be a good idea to make sure your game shows some potential for you or other game developers to expand on your ideas and extend them into new health areas and/or game technologies.

- Trendsetting. Could this game start a new and potentially impactful trend in health game design or in strategies for health behavior change?
- Extensible health behavior change strategies. Do you think other games are likely to be developed that will expand or extend the approaches used in your game?
- Extensible to other game platforms. Could the game easily be played on other technologies and platforms in addition to the one it is on now?
- Easy to expand. Is the game easy to develop further? If so, how might it be expanded and how easily? For example, could more content be added, more game levels be created, or more health behaviors be addressed, all using the game's current format and technology?
- New tools. Does the game introduce new health-related tools that could be used in a variety of contexts and in a wide range of web sites and games?
- Elements that can be used in other media. Does your game have a character or setting or back story that could appear across various media in many different story lines?

Potential to engage and motivate target audience

- Motivational strategies. Does the game use well-established strategies to engage and motivate players? For example, does the game offer an appealing level of interactivity, feedback, and user control; adapt to the player's interests and abilities; integrate coaching and help; use powerful displays of the user's progress in the game; provide an immersive environment that completely engages the player in the game; enable players to communicate with other players; involve friends, family, and social networks; use interactive social characters; and/or use some of the many other features known to engage game players?
- Appealing content and challenges. Does the game contain content and/or challenges that would appeal especially to the target population and would be especially motivating to them?
- Sustained engagement. Will the game be used frequently over time or will interest fade quickly once the novelty wears off? How does your game assure that interest will not fade?
- Updates and new content. Will new content or features be added continuously, and will this improve the game? If no new content or features will be added, will the game be so compelling and engaging that it will not need to be updated?
- Transfer from game to real life. Will players use in their daily lives the knowledge, attitudes, skills, or behaviors they learn in your game? Does your game support this transfer? How?