



***Playing 4 Keeps***  
**Evaluation Report**

**Year 2 Report**

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## Overview

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*Playing 4 Keeps*, one of the Global Kids after school programs in New York City, seeks to develop an innovative, hands-on curriculum for engaging traditionally underserved youth in the development and dissemination of online “casual” games that address social and global issues. The *Playing 4 Keeps* games are designed by the program's youth participants to educate their peers around the world about important social justice issues. In the first year of the program's implementation, academic year 2005-06, the youth collaborated with the game design company Gamelab and chose education in Haiti as their topic of focus, which culminated in the development of *Ayiti: The Cost of Life*. In the second year of implementation, the youth collaborated with a youth-run interactive collective, Digital Refinery, to build a game in the virtual world, *Teen Second Life*. The game *CONSENT!* focuses on racism and health issues by looking at medical experimentation on prisoners. In an effort to understand various aspects of the after school program, Global Kids asked the Education Development Center, Inc.'s Center for Children and Technology (EDC/CCT) to serve as its program evaluator.

This report focuses on activities that occurred during Year 2 of the *Playing 4 Keeps* program. The report reviews methods, program activities, which include *Ayiti* game user experiences, the use of *Ayiti* in educational settings, and *Playing 4 Keeps* participants' experiences, and concludes with recommendations for the continued implementation of *Playing 4 Keeps* activities.

## Methodology

In Year 2 of the evaluation, EDC/CCT examined how *Playing 4 Keeps* influenced users' experiences playing *Ayiti*; how educators were using *Ayiti* to support student learning objectives; and how the *Playing 4 Keeps* after school enrichment program influenced youth learning opportunities around game design and civic literacy. EDC/CCT set out to collect data to address each of these three strands. The data collection instruments we used to evaluate the *Playing 4 Keeps* program included:

- A large-scale survey for users who played *Ayiti: The Cost of Life*;
- A preliminary online educator survey and telephone follow-up interviews; and
- In-person focus groups with youth who participated in Year 2 of the *Playing 4 Keeps* after school program at its partner high school.

## Findings

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### *Ayiti: The Cost of Life Survey*

Compared to games in which players are asked to pursue a single strategy, whether shooting, avoiding or locating, *Ayiti: The Cost of Life* asks players to solve complex problems by managing resources. Success at the game and understanding its basic tenet are not necessarily related, however. Players can engage with the game for a few minutes, fail to understand its message and stop, or they can understand the idea completely but fail to win because they stop too soon. One way to measure the kind of learning that may be taking place while players engage with the game is to investigate how players interpret the basic problem posed by the game.

The game asks players to make a series of decisions about health, education and work issues arising in the life of a virtual family in Haiti. The central activity of the game play consists of managing the distribution of fluctuating resources across conflicting needs. In the game, life is challenging and only partially under the player's control. Better strategic thinking does, however, increase the likelihood of winning. With this in mind, we designed a survey that players would encounter at the beginning and end of the game. The survey questions were meant to gauge whether the game succeeds in communicating the idea it is designed to embody about the complexity of the struggle for education in Haiti.

Two sets of statements representing different game-winning strategies comprise the *Ayiti* survey. In the pre-game set, three statements represent each of the variables players can manipulate in the game, and a fourth represents a focus on the relationship among variables. The single-variable, *absolute* statements about money, health and education were likely to be disproved during game play. The *relative* relationship statement was broad enough to cover most game success experiences and thus be true. For the end of the game, we designed a second set of statements consisting of three *relative*, multi-variable statements describing the conflict between any two of the three themes and a single-variable, *absolute* statement likely to be disproved during the game play. (See Table 1 for the absolute and relative statements used in the *Ayiti* survey.)

At the start of the game, we asked players to choose among four statements to describe the strategy they were planning to use to play the game:

- *The way to win the game is to make as much money as possible — no matter what.*
- *Health is the most important thing to take care of — if the whole family is dead, you lose.*
- *Getting an education is all that matters — that's how you get better jobs and win the game.*
- *You can't have everything but if you watch your health, get some education and work hard, you can survive.*

At the finish of the game, we asked players to indicate whether each of the full set of eight statements was true or false. (See Appendix 1 for the complete *Ayiti* survey.)

Our expectation was that, as they experienced the complexity of interactions among factors during the game, players would learn to recognize the relative statements as truer than the absolute statements.

**Table 1: Absolute and relative statements related to each game theme.**

Theme	Absolute Statement	Relative Statement
MONEY	<i>The way to win the game is to make as much money as possible — no matter what.</i>	<i>If you don't get some education you can't get a well-paying job but you need money to go to school.</i>
HEALTH	<i>Health is the most important thing to take care of — if the whole family is dead, you lose.</i>	<i>You have to be healthy enough to keep working but working too much can make you sick.</i>
EDUCATION	<i>Getting an education is all that matters — that's how you get better jobs and win the game.</i>	<i>You can only go to school if you're healthy — but studying too hard can make you sick.</i>
SURVIVAL*	<i>If you never go into debt, you'll survive because nothing can touch you.</i>	<i>You can't have everything but if you watch your health, get some education and work hard, you can survive.</i>

\* Although the survey instrument referred to the theme of *happiness*, we refer to *survival* in our analysis as it is a more accurate reflection of the content of the corresponding statements.

## Findings

A total of 15,990 players completed survey forms at the beginning and end of the game. About 60 percent of them said they were females. Table 2 represents the percent of players selecting each statement before and after playing the game.

The themes in Table 2 are ordered by the percentage of players who selected each of the four initial statements at the start of the game. The only relative statement included in the initial set, the one about *survival*, was the least frequently chosen (19.3%). All three absolute statements were chosen more frequently (health = 27.2%, education = 22.7 %). The largest group of players chose *money* as their initial game playing strategy (30.7%).

**Table 2: Percent of players agreeing with each type of statement (n = 15,990).**

	Statements	%
MONEY	<b>Start</b>	<b>30.7</b>
	Absolute	42.6
	Relative	79.5
HEALTH	<b>Start</b>	<b>27.2</b>
	Absolute	78.2
	Relative	84.6
EDUCATION	<b>Start</b>	<b>22.7</b>
	Absolute	--
	Relative	69.0
SURVIVAL	<b>Start</b>	<b>19.3</b>
	Absolute	36.7
	Relative	80.4

After playing the game, more players agreed with the relative statement than with the absolute statements about *money*, *health* and *survival*.

- The largest difference between the percentages of players agreeing with the relative statement and the absolute statement is for the topic of *survival* (a difference of 43.7%).
- *Money* is a close second (a difference of 36.9%).
- For the topic of *health*, the difference is very small (6.4%). We suspect that the reason for this lack of clear difference is related to a flaw in the design of the statement: the absolute statement about health (“Health is the most important thing to take care of — if the whole family is dead, you lose.”) is too self-evidently true to be rejected by players, however much they may have learned about the complexity of survival in the game.
- Unfortunately, due to a technical glitch, the absolute statement about *education* was not included in the online game, so we have no data about the percent of players who agreed with it at the end of the game.

This can be interpreted as a change in favor of a more complex and differentiated understanding of the issues involved in the game. Even though players may only have interacted with the game for a short time, most came to understand that a single-minded approach to the problem of staying alive in the game was less useful than some form of balancing the factors of health, money and education. According to our research, the central idea embedded in the game play, that no single factor accounts for success, appears to have been successfully communicated to the majority of players.

### **Educator Use of *Ayiti: The Cost of Life***

To determine how teachers are using *Ayiti* in educational settings EDC/CCT created an online survey for educators to complete. The survey served two purposes: to obtain an initial glimpse of how educators have already used or intend to use *Ayiti* in an educational

setting and to collect contact information that would allow us to conduct more in-depth interviews with educators about their use of the game.

Global Kids sent a targeted email to educators who are familiar with Global Kids programs and arranged to have a link to the *Ayiti* educator survey posted on the TakingITGlobal website. (See Appendix 2 for the *Ayiti* educator survey.) The goal of both efforts was to identify potential educators who may have used or intended to use *Ayiti*.

Eleven respondents completed the survey: indicating the following:

- 5 taught history/social studies;
- 2 taught English language arts;
- 2 taught math;
- 1 taught science;
- 3 taught a different subject than those listed above and
- 2 do not teach.

Ten of the respondents indicated the grade level with which they work. Over half of the respondents said that they were high school teachers, 4 were middle school teachers, and 2 taught higher education.

The majority of respondents (8) reported they had used *Ayiti: The Cost of Life* with their students, while 3 had not. Of those educators who had used the games with students, six explained how they used *Ayiti* in an educational context.

- Three educators had students play *Ayiti* as a part of a larger curricular unit or project to deliver content and to provide an understanding of global poverty, globalization, or working communities. One educator reported that *Ayiti* was integrated into a class project “as a way of showing the choices that impoverished people have. The majority of our student population has had no experience with poverty.”
- Two educators used the game as an example of a topic being introduced to students (game design, and social responsibility).
- One educator used *Ayiti* as a “fun classroom activity” related to a larger curriculum unit.

Of the educators who had not used *Ayiti* in an educational setting, two reported that they intended to use the game to give students a conceptual understanding of global poverty. Also, none of the respondents indicated they had used the game-associated curriculum developed by Global Kids

Five educators who completed the online survey submitted their contact information and said they would be willing to be contacted. Of these, two people responded to a follow-up email, one of whom was not an educator and had not implemented *Ayiti* in an educational setting, and the other was not available for a follow-up interview.

## *Playing 4 Keeps* After School Program

In year 2 of the *Playing 4 Keeps* after school program, Global Kids continued to work with youth at its partner high school in Brooklyn, NY. Two workshop facilitators and one intern from Global Kids led a total of 25 workshops over the course of the 2006-07 academic year. The workshops introduced youth to the final version of *Ayiti*, the concept of socially conscious games, social issues and themes related to global citizenship and responsibility, and the virtual world of Teen Second Life where the game would be developed. During the workshops youth identified a social issue that was important to them, learned the basics of game design, and familiarized themselves with Teen Second Life. The youth decided to develop a game that explored the ethics of informed consent within a coercive environment. The game *CONSENT!* presents the options African American male prisoners in the United States faced from World War II to the present when asked to consent to medical experimentation. (See Appendix 3 for the *Playing 4 Keeps* focus group protocol.)

In addition to working with youth at its partner high school, *Playing 4 Keeps* collaborated with a group of youth from a youth-run Second Life development company, Digital Refinery, to develop the game in Teen Second Life, as well as teens in a related after school program led by Global Kids at Washington, D.C.'s McKinley Technology High School. *Playing 4 Keeps* youth also had the opportunity to attend the Games for Change Conference where *Ayiti: The Cost of Life* was nominated for and received an award and traveled to Washington, D.C. to meet with the McKinley students.

Over the course of the school year as many as 21 youth participated in the program (three of whom participated in Year 1 of the program) and about ten youth participated in the program on a consistent basis. During the academic year, *Playing 4 Keeps* faced difficulties in accessing adequate technologies in the school. In addition, halfway through the year the school was notified that it would be phased out due to poor performance. These factors affected students' ability to develop gaming skills as well as their attendance in the program.

The following information is based on two separate focus groups involving six youth who participated in Year 2 of the *Playing 4 Keeps* after school program. These youth expressed the attitude that there is value in gaming regardless of whether the game is explicitly educational. While some youth shared their view that there was something to be learned from all games, including controversial titles like Grand Theft Auto, they said they placed a greater value on the games they had developed because of their emphasis on social justice issues. As one youth reflected, "If you look at our game, *CONSENT!*, you learn about how they experimented on people in jail without their consent. That's learning something. And *Ayiti*, the game they made last year, that's about poverty in Haiti. You can learn something from all the games. You may not see it right away because it's implied but you always learn something."

Through their participation in *Playing 4 Keeps*, participating youth shared how their experiences in the program involved the following:

- **Engaging in activities that require useful life skills related to communication and collaboration.** One youth shared that the most important lesson he learned was that “You have to respect each other” while another youth explained, “Most of all, what I learned was how to work with other people, how to respect their ideas, and just listen.” Discussing the collaborative nature of the program, another youth commented, “After you say what you think, you have to listen to other people to see if their ideas could work with yours. Like how it will look for the game or project you were designing. When I was working with them I felt really comfortable working with them because I was starting to know them and it was making me think it’s better to work with other people instead of trying to do it all myself.” Another student added, “When I didn’t know something I had to ask [the other students] for help.”
- **Learning about social issues by playing *Ayiti* and creating *CONSENT!*** Youth shared how they learned about different social issues by participating in the various program activities. As one youth commented, “When we played *Ayiti*, I realized that there is poverty there [in Haiti] and when you think of it, there is poverty all over the world.” Another youth talked about the underlying social issues of consent; she said, “Just like the game says, we learned about our history, how slavery was and everything. How they tried to keep black people... they offered them things but they just wanted to experiment on them like a rat or something.” While another youth added, “I did hear that they experimented on prisoners, but I didn’t know that they forced them to do the experiments.”
- **Realizing what goes into designing and creating a good game.** Throughout the *Playing 4 Keeps* program, youth engaged in game development activities from developing a prototype of the game to recording their voices to integrate into the final version of *CONSENT!* One youth explained the game design process in the following way: “I learned that there’s more to games than playing games. Like it could take two years just to make one game... but actually the blueprints, it takes so long you don’t really understand how much hard work was put in to the game.” While another youth commented, “I really learned a lot from the game, the blueprints and everything, the process.” Participating youth further emphasized the importance of planning; as one student said, “You need to know what you’re going to do. You really need to understand what you’re doing.” Youth also commented on the need for a lot of thinking, imagination, a good or “catchy” theme, and the leadership to get everyone of one mind. As one youth explained, “We all had different ideas and topics and there was conflict... to get us all to create one game.”
- **Gaining general computers skills.** Several youth reflected on picking up general computer skills through their participation in the program. As one student reported, “We learned about how to use the computer a little bit. I’m the kind of person that doesn’t use it that much so they would help me out with my computer skills. I don’t like computers that much... Now I have a little more ease with it.” Similarly another youth said, “You also learn about computer skills because you need to know computer skills to make the game.” As the same time, the youth who participated in Year 2 of *Playing 4 Keeps* reported that the main challenge throughout the year was that the computers they used during the program did not

work or were slow. As one youth commented, “I was expecting to do more work on computers that worked. At my school the computers don’t work or are kind of slow.”

Also, while not all youth interacted in the online gaming environment, and youth did not learn enough gaming skills to create *CONSENT!* independently, several youth reflected on what they learned to do specifically in Teen Second Life. One youth learned how to make an avatar fly, for example, while several others designed objects, including houses, cars and clothing. Another student commented on the collaborative learning process and the opportunity to turn to their peers for help and support: “Even in Second Life there are always people to help you... Like when I first started, I didn’t know how to do anything in Second Life. I didn’t know how to build stuff, or how to get money but then I started asking people [online in Teen Second Life] and they started help me build stuff and how to get money.”

## Recommendations

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Based on feedback from participants and facilitators, the following is a list of recommendations that Global Kids may want to consider to improve implementation and feedback mechanisms for the *Playing 4 Keeps* program:

- Establish a cohort of educators to facilitate dissemination and collection of educator resources.
- Provide incentives for teachers to participate in phone interviews and/or focus groups to increase educator feedback.
- Establish criteria when selecting a school to host the *Playing 4 Keeps* after school program. For example, it might be helpful to collaborate with a school that has a technology infrastructure able to support game use and design as well as a reliable meeting space where the group can gather during after-school hours.
- Foster a consistent working relationship with Digital Refinery or a similar youth gamer collective to work collaboratively with *Playing 4 Keeps* youth. This is likely to increase participants' exposure to gaming skills and their involvement in the technical aspects of game design.
- Set clear expectations with all program partners, especially those responsible for game development, related to research and evaluation. This will improve the quality and timeliness of the quantitative data collected electronically.
- Continue giving youth opportunities to explore global and social issues by building multi-layered game-playing and decision-making strategies into both the game design and the after school program curriculum.

## Appendix 1: Ayiti Survey

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What's your game-playing strategy? [*Before Game Play*]

- Health — Health is the most important thing to take care of — if the whole family is dead, you lose.
- Happiness — You can't have everything but if you watch your health, get some education and work hard, you can.
- Education — Getting an education is all that matters — that's how you get better jobs and win the game.
- Money — The way to win the game is to make as much money as possible — no matter what.

Optional

- How old are you?
- Are you a boy?
- Or a girl?

True or False [*After Game Play*]

- You have to be healthy enough to keep working but working too much can make you sick.
- If you never go into debt, you'll survive because nothing can touch you.
- You can't have everything but if you watch your health, get some education and work hard, you can survive.
- Health is the most important thing to take care of — if the whole family is dead, you lose.
- You can only go to school if you are healthy but studying too hard can make you sick.
- The way to win the game is to make as much money as possible — no matter what.
- If you don't get some education you can't get a well-paying job but you need money to go to school.
- Getting an education is all that matters — that's how you get better jobs and win the game.

## Appendix 2: *Ayiti* Educator Survey

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### *Ayiti: The Cost of Life*

Take a moment to tell us how you have used — or plan to use — *Ayiti: The Cost of Life* game in your classroom. Your comments will help us understand how video games like this can support teaching and learning.

1. What subjects to you teach? (Choose all that apply)

- History / Social Studies
- English/Language Arts
- Sciences
- Math
- Other
- Do not teach

2. What grade level? (Choose all that apply)

- Elementary
- Middle School
- High School
- Higher Ed.

3. Have you used *Ayiti: The Cost of Life* with students?

- Yes
- No

4. If yes, please describe how you have used the game:

[Text box]

5. If not, please describe how you imagine using the game with students:

[Text box]

## **Appendix 3: *Playing 4 Keeps* Focus Group Protocol**

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What can you learn from gaming? (Educational value in playing or creating games)

What's the most important thing you learned in P4K? (Gaming skills, about social issues)

What did you think P4K was going to be like? (Expectations)  
[If there are any repeat youth] How was this year different from last year?

What did you create in Second Life? Why? How did you create the game? What was that like? How did you work together? (Leadership, communication, collaboration, initiative, self-direction, etc.)

What does it take to run a program like this and develop a good game? How can P4K be improved? (Additional/Less workshops, more time, more guidance/instruction, etc.)