



An Entertainment-Education Digital Game for Bullying Prevention?

Hua (Helen) Wang, PhD

Department of Communication
University at Buffalo, The State University of New York

University at Buffalo Alberti Center for Bullying Abuse Prevention Colloquium (November 7, 2018)

“The shortest distance between
two people is a story.”



Storytelling for Health Promotion and Social Change



Entertainment-Education is...

a communication strategy that aims at seamlessly embedding educational and social issues in the entertainment programming with clear objectives to raise audience members' awareness, increase their knowledge, create favorable attitudes, shift social norms, and change overt behaviors.

Sabido Methodology & Social Modeling



Miguel Sabido & Albert Bandura, 2001

Adapting Sabido Methodology to Game Design



CHAMPLAIN COLLEGE



Soccer-Themed, Narrative-Based, First-Person, Role-Playing, Free Online Game

Adapting Sabido Methodology to Game Design



Coach



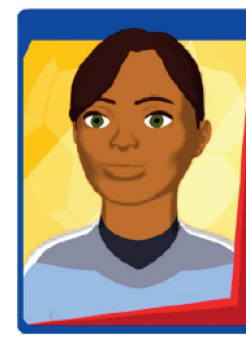
Zak



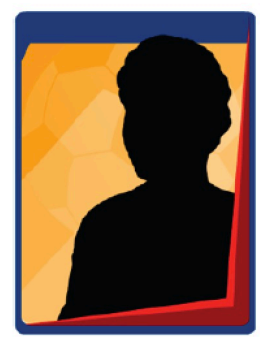
Tal



Hanna



Raina



YOU

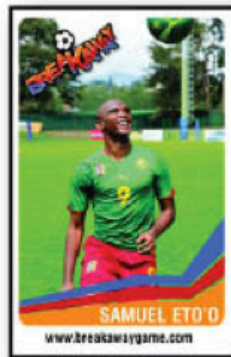
Characters as Role Models

- Negative characters
- Positive characters
- Transitional characters

Adapting Sabido Methodology to Game Design



Adapting Sabido Methodology to Game Design

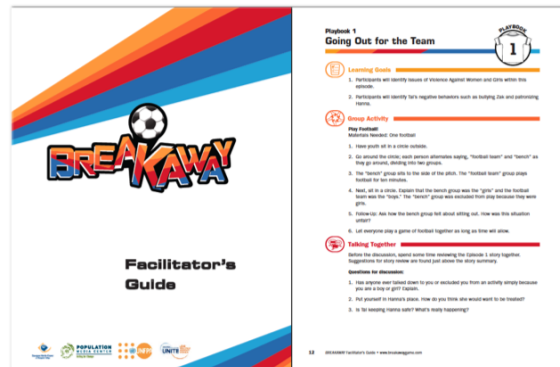


Developing a Youth Camp Model



Hebron, Palestine, 2011

Developing a Youth Camp Model



Sonsonate, El Salvador
2013, 2014





BREAKAWAY Promo Video -- <https://vimeo.com/146825593>

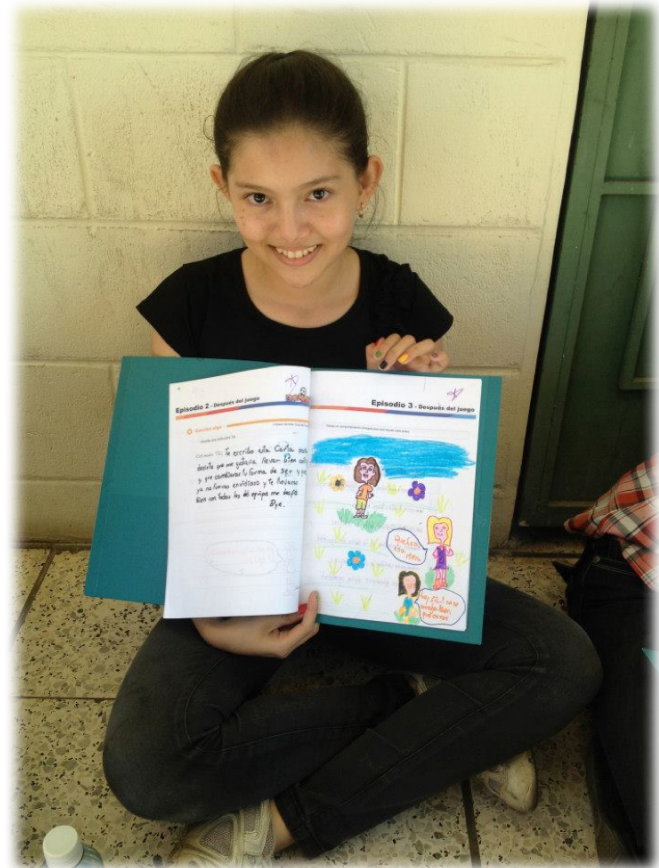
Field Research

El Salvador, November 2013

Event-Based Time Diary



Participatory Sketching



Gamification Strategies



Facebook Insights



BREAKAWAY Game ► **SayNO - UNiTE to End Violence Against Women**

November 25, 2013

We are saying NO to Violence Against Women with **BREAKAWAY Game** summer camps for youth in El Salvador this and last week! BREAKAWAY is the first game of its kind to tackle issues such as gender equality, fair team play, and violence against ... [See More](#)



BREAKAWAY Game

November 26, 2013

The BREAKAWAY Rap El Salvador Morning Session Nov 26, 2013

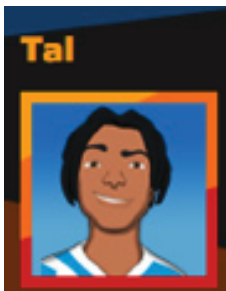
The youth in the morning session created and performed their BREAKAWAY Rap songs!



Research Participants

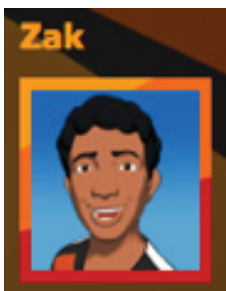
	Analytical sample	AM camp group	PM camp group
N (Sample Size)	83	38	45
Age			
Range	7-18	7-15	8-18
Median & Mode	12	12	12
Mean	11.94	11.50	12.29
SD	2.30	2.56	2.05
Sex			
Boys	40	20	20
Girls	29	11	18
Unknown	14	7	7

Character Identification (EP 01)



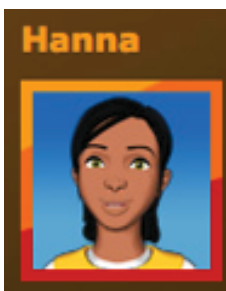
- bad
- selfish
- rude

93.4%



- friendly
- kind
- nice
- helpful

96.4%



- happy
- enthusiastic

95.7%



Empathizing the Victim (EP 02)



94% of the participants demonstrated considerable empathy toward Hanna



A Letter to the Bully (EP 02)

Change behavior
(n=100)
e.g., "Stop bullying!"

Negative personality
(n=25)
e.g., "You are rude!"

Harmful consequences
(n=8)
e.g., "You hurt people's
feelings!"

Reasons to change
(n=6)
e.g., "It's important
to respect girls!"



Acrostic Poems turned into RAP songs (EP 03)



Responsible members of society
Understand that we are all equal
Always together and strongly united
We always think before we act
We are tired of the lack of equity
working together
Equity we will achieve
We are always proud of equality

(translated from Spanish)

respectful

generous

kind

WordArt

(Good sportsmanship, EP 04)

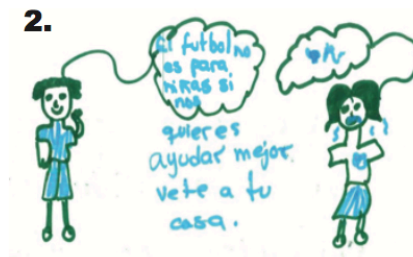
honest

Identifying Disrespectful Behaviors (EP 10)

1.



2.



3.



About 90% of the participants were able to correctly identify disrespectful behaviors and provide coping strategies after playing five selected episodes of BREAKAWAY

"Why you say that?"



I will try to ignore her

yo trataré de ignorarla

calm down, all of you; quit fighting



"don't bother her"



"shut up"



"don't you dare insult me"

Female Player Stickers



- $N = 56$, Range = 1 ~ 29, $M = 17.86$, $SD = 6.25$
- On average, campers chose more female player stickers than male player stickers although the difference was not statistically significant

$$M_F = 8.11 \text{ vs. } M_M = 7.64; t(55) = .57, p = .57$$

- Girls chose significantly more female player stickers

$$M_F = 10.65 \text{ vs. } M_M = 5.70; t(22) = 4.81, p < .001$$

Boys chose significantly more male player stickers although also a decent number of female player stickers

$$M_F = 6.64 \text{ vs. } M_M = 10.04; t(27) = -3.83, p = .001$$

Empowerment?

Open to change?

- These patterns were consistent between AM and PM camps

facebook Insights

11/15/2013 ~ 2/28/2014

- 60 posts regarding the El Salvador youth camps (51 of them during the trip)
- These photos and short videos created a spike in the daily number of page likes. Some of these posts reached not just hundreds but thousands of Facebook users.
Max = 2,333; $M = 379.47$
- The most popular video was played almost 100 times.
- Altogether in 3.5 months, the BREAKAWAY camp posts gained
 - 1,308 likes, 177 shares, and 198 comments;
 - Engaged 4,420 Facebook users
 - On a daily basis, an average of 77 Facebook users (including over 60 from Latin America/El Salvador)
- Some trained local facilitators became the most enthusiastic fans on BREAKAWAY Facebook page and started self-organization for future training and youth camps

Field Research

El Salvador, November 2014

Research Participants

	Control Group	Gameplay Only (GO)	Gameplay + Discussion (GD)	Total sample
<i>N</i>	21	56	30	107
Age				
Range	6-16	6-19	8-16	6-19
Median	11	12.50	13	12
Mode	9	10	14	10
<i>M</i>	10.81	12.22	12.07	11.89
<i>SD</i>	2.50	3.18	2.53	2.92
Sex				
Boys	10	24	10	51
Girls	11	30	17	51
Unknown	0	2	3	5




Identifying and Responding to Bullying

- About half of the campers were able to correctly identify different types of bullying behaviors and provide proper coping strategies after playing five selected episodes of BREAKAWAY

○ Draw Something

Based on what you've learn in breakaway, draw a line to match the picture on the left with the type of bullying in the middle. Then tell us what you would do if you were in that situation.

Picture	Type of Bullying	What Would You Do?
	Physical Bullying hurting a person's body or possessions	
	Psychological Bullying hurting someone's reputation or relationships	
	Verbal Bullying saying or writing mean things	

Dibujo	Tipo de Acoso	¿Qué harías?
	Acoso Físico lastimar el cuerpo o pertenencias de una persona	Decirle que no me maltratará de esa forma. Tell the person to not mistreat me like this.
	Acoso psicológico lastimar la reputación o las relaciones de una persona	Decirle que no tiene derecho de pegarme. Tell him/her that they have no right to punch me.
	Acoso Verbal Decir o escribir cosas malas o ofensivas sobre una persona	Decirle que ella no tiene que ser así con sus amigos. Tell her that she doesn't have to be like this with her friends.

Bullying Victimization Self-Efficacy

Color Your Answer

Bullying is being mean to another kid over and over again. Bullying often includes: teasing, talking about hurting someone, spreading rumors, leaving kids out on purpose, or attacking someone by hitting them or yelling at them.

Pick and color one face to show how sure you are that you can...

	Not Sure													Very Sure
1. talk about your feelings with other people (friends, family, teacher, etc.) about bullying.														
2. talk to a bully.														
3. stand up to a bully.														
4. confront a bully.														
5. ignore a bully.														
6. walk away from a bully.														
7. tell a bully that you don't want to fight.														
8. tell other people (friends, family, teacher, etc.) you are being bullied.														
9. get help from other people (friends, family, teacher, etc.) when you are bullied.														
10. calm down easily when you are scared.														
11. calm down quickly when you are distressed.														
12. cope when you are angry and sad.														
13. drive away unpleasant and sad thoughts.														

- 9- item modified version of Bullying Victimization Self-efficacy Scale (BVSES, Kim, Varjas, Meyers & Henrich, 2010)
- 4-item modified version of Self-Efficacy Scale for Children (SESC, Gambin & Świącicka, 2012)
- Both the GO and GD groups demonstrated desirable trends in bullying victimization self-efficacy and regulation of negative emotions at posttest as compared to pretest.

Female Player Stickers

Both the GO and GD groups chose more female soccer player stickers at posttest as compared to pretest. On average, the number of female player stickers increased from 3.43 to 4.99 out of 11. At posttest, less participants chose a male player to be the team captain, as compared to pretest. The percentage dropped from 80% to 63% overall.



Lab Research

Buffalo, December 2016

Research Participants

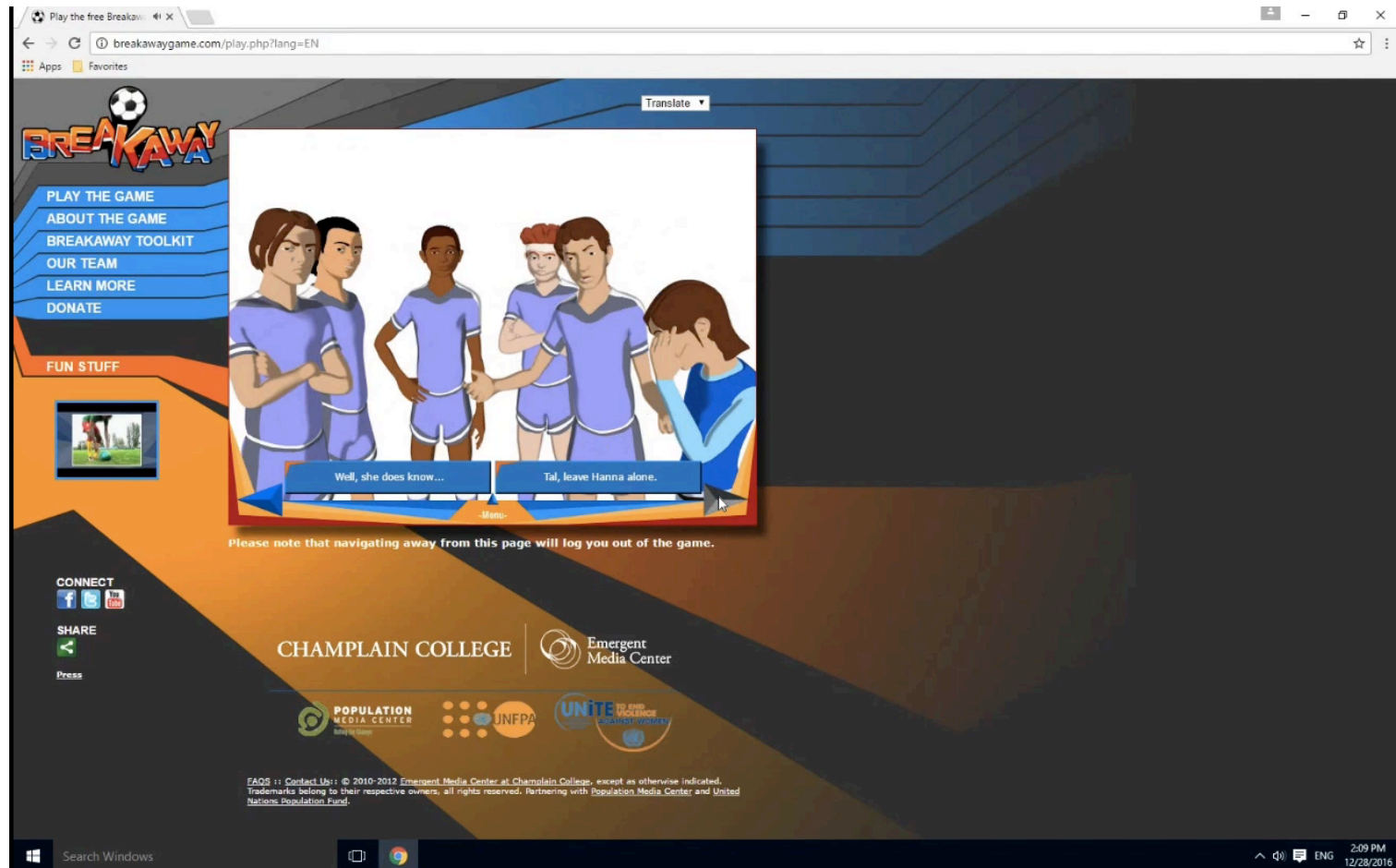
	Analytical sample	Control group	Game only group	Game plus discussion group
<i>N</i>	31	10	11	10
Age				
Range	8-10	8-10	8-10	8-10
Median	12	9	9	8
Mode	10	10	8	8
<i>M</i>	11.85	9.10	8.73	8.80
<i>SD</i>	2.88	.88	.79	1.03
Sex				
Boys	17	6	5	6
Girls	14	4	6	4

Defining Bullying

- 100% of the participants were able to define bullying in their own words.
 - “Bullying is purposely hurting someone emotionally or physically. Bullies try to make them feel good by hurting others.” (Participant 100002)
 - “Bullying is when someone teases or says mean things about you. They might spread rumors about you that are not true. Bullies can hurt you physically or your feelings.” (Participant 100011)

Measuring Narrative Exposure

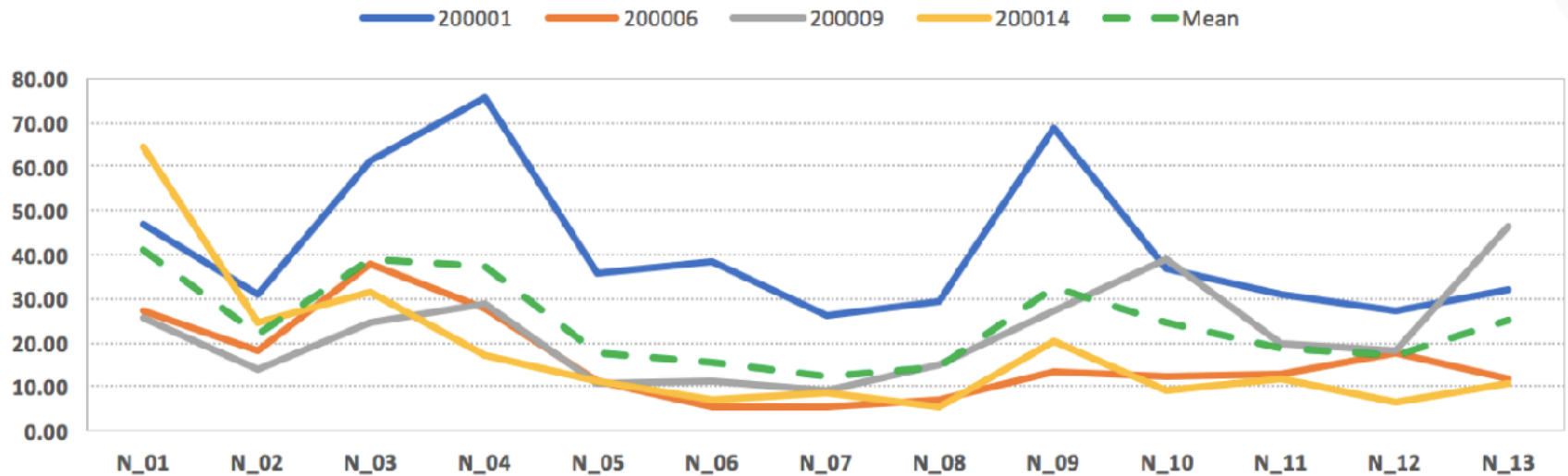
By Recording Player's Computer Screen Activities



Measuring Narrative Exposure

By Recording Player's Computer Screen Activities

Narrative Exposure Time Over 13 Episodes (average seconds per cut scene)



Measuring Narrative Exposure

By Recording Player's Computer Screen Activities

- 83% reread dialogue before answering
- Younger girls spend more time reading
- Pro-social rate 50-90%
- Anti-social rate 10-37%

Variables	Range	M	SD
Narrative exposure	11.01 - 118.15	31.50	24.27
Response time	2.34 - 14.33	7.53	3.17
Reread frequency	0 -14	5.06	4.58
Prosocial choice ratio	.50 - .90	.73	.11
Antisocial choice ratio	0 - .37	.11	.10

Discussion



**An Entertainment-Education
Digital Game for
Bullying Prevention?**

Acknowledgement



Collaborative Team at the 2014 Meaningful Play conference at Michigan State University
From left to right: Yishin C. Wu, Ji Hye Choi, Helen Wang, Ann DeMarle, Lynn Eyberg, Sarah Jerger, and Adam Walker.

CHAMPLAIN COLLEGE



*Empowered lives.
Resilient nations.*

Thank You!

- To play the original BREAKAWAY game:
www.breakawaygame.com
- To try out the new mobile version:
www.play.google.com/store/apps/details?id=com.emc.breakaway
- To find out more about the BREAKAWAY initiative:
www.breakawaygame.champlain.edu
- To contact Helen Wang about BREAKAWAY research:
hwang23@buffalo.edu