

BASE Education Research Brief: Summer 2018

Version 1.1

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Introduction

The following research brief details the findings of a research study that utilized data from participants' activity and responses on the BASE Education website. The aim of this study was to examine and characterize trends in participants' activity within the BASE Education platform. The following research brief discusses the findings for course completion, course engagement, and course disclosure. Additionally, this brief discusses results for Firewords. Finally, this brief examine demographic trends in course completion, course engagement, course disclosure, and Firewords.

The data used in this research study came from 9 groups which were located in four states. Seventeen schools, both online and traditional in person schools, were included in this sample. Age of participants ranged from 11 years old to 18 years old. The data from a total of 625 course modules completed by 218 participants were used in the analysis of this study.

All data has been de-identified and the groups included in this study will remain anonymous. The researcher responsible for this report is a paid employee of BASE Education but received no additional compensation for the results and acted in an unbiased manner throughout the collection and reporting phases of this research. No additional conflicts of interest to report at this time.

Measures:

Completion percentages were measured by how far the participant went in each course module. This number was provided by the BASE Education system.

Engagement levels were measured on a scale from 0 to 3, with 0 being the least amount of engagement and 3 being the most amount of engagement. The scoring system for Engagement levels with examples can be found in *Table 1*.

Amount of Disclosure was measured by counting how many personal statements or stories the participant shared in each course module. Responses that included statements such as “I want...”, “I am...”, “I need...”, “I will...”, “I feel...”, “One time...”, or any other way of expressing a personal sentiment or story were considered an instance of disclosure.

Score	Engagement Type	Example Prompt: “What is the color of the sky?” Example Answers:
0	No engagement: no answer or the answer does not relate to the prompt	“idk”
1	Little engagement: answers are short and related directly to the prompt	“blue”
2	Moderate engagement: answers are a mixture of shorter responses and more detailed responses to the prompts	“It can be blue or dark blue”
3	Full engagement: answers are in full sentences and related directly to the prompt	“The sky color depends on the time of day and the weather. Sometimes the sky can be blue, but it can also be pink during sunsets.”

Table 1. Scoring System for Engagement level

Demographics:

A total of 218 participants were used in the analysis of this study. Demographic questions asked on the BASE website include gender, age, ethnicity, and educational level. While the demographic questions are asked when an individual first uses the BASE Education system, users are not mandated to fill in their demographic information. Due to this fact, 46% of the sample included demographic information. The following information on demographics includes only the information provided by the participants.

Of the 101 participants that provided their gender, 37 were female, 64 were male, and 1 preferred not to respond. Of the 83 participants that provided their age, the age range for this sample was 11 years old to 18 years old, with a mean age of 13.69 years and a standard deviation of 2.28 years. Of the 77 participants that self-identified their ethnicity, 8 were Black/African America, 38 were of Hispanic Origin, 1 was Native American/Pacific Islander, and 30 were White.

Additionally, the BASE Education System provides the administrators and teachers a section to include the reasons for using BASE for the specific participant. The reasons for use for this sample can be found in *Table 2*.

Reasons for Use	Frequency
Anger/Fighting	14
Bullying/Related Aggression/Cyberbullying/Technology Issues	2
Suspension/Expulsion	3
Disruptive Behaviors	15
Inappropriate Peer Behaviors	9
Depression/Anxiety	3
Poor Choices	13
Tardy/Chronic Absenteeism	5
School Disengagement	3
LGBTQ	1
Prevention	11
Substance Issues	8
Truancy	10
Domestic Issues	1

Self-Defeating Behaviors	3
Stress	1

Table 2. Reported reasons for use for the current sample.

Results

- **Course Results:**

A total of 625 BASE course modules were started by the 218 participants in this study. The average completion percentage was 86.79% and the average engagement level was 1.97. The average disclosure amount was 10 which means on average, each participants shared 10 personal aspects of their life per course module.

Course results were also broken down course by course, examining completion percentages, engagement, and disclosure amount for each type of course. This data can be found in Table 3.

Course Name:	Number Completed	Average Completion	Average Engagement Level	Average Disclosure Number
Total Courses	625	87%	1.97	10
Future Goals	72	83%	2.1	15.8
Impulsive Decision Making	60	83%	2.06	7.58
Anger Management	53	86%	1.85	7.75
Character Traits	50	84%	2.22	15.28
Healthy Communication	40	96%	1.96	6.33
Coping Strategies	39	86%	1.96	9.03
Motivation	34	88%	1.85	12.31
Self Esteem	30	88%	2.25	9.67
Visions of Self	30	88%	2.23	9.33
Getting to Know You	26	89%	2.14	12.31
Refocus	25	84%	1.97	12.36
Adrenaline	23	93%	1.67	6.2
Black and White Thinking	21	95%	1.75	7.29
Restorative Practices	17	95%	2.38	10.35
Irrational Thinking	15	90%	1.78	4.21

Primary and Secondary Impacts of Behaviors	14	84%	2.41	14.5
Bullying and Cyberbullying	13	82%	2.27	11.92
Talking to Peers	10	74%	2.02	13.9
Talking to Parents and Guardians	8	85%	1.94	9.37
Avoiding Exploitation	7	97%	2.36	11.86
Drugs	7	74%	2.11	7.67
Refusal Skills	7	79%	1.69	6.28
Strategies for a Successful Return	7	95%	2.64	20.43
Digital Citizenship	6	81%	1.75	7
Truancy	5	76%	2.2	12.6
All About Me	3	100%	2	20.67
Putting it Together	3	100%	0.33	0.33
Learned Helplessness	2	75%	1.15	6

Table 3. Course related data

- **Demographic Results:**

- *Age*

A total of 110 participants and the responses from 361 course modules were used in analyzing trends for age. Overall, no significant correlations were found between age and completion percentage, age and engagement amount, age and disclosure amount, and age and Fireword type and amount.

- *Gender*

A total of 100 participants and the responses from 330 course modules were used in analyzing trends for gender. Results indicate there is a statistically significant difference in disclosure amount between males (M=9.97, sd=7.46) and females (M=12.1, sd=7.9), $t(329)=2.33, p>0.05$. In other words, on average, female participants disclosed more personal aspects of their lives per module than males. Additionally, results indicate there is a statistically significant difference in engagement level between males (M=1.9, sd=0.88) and females (M=2.22, sd=0.74), $t(329)=3.32, p>0.01$. In other words, on average, females were more engaged than males during the modules.

- **Firewords Results:**

Data from 625 modules were used in the analysis of Firewords. As stated previously, 218 participants completed the 625 modules. Of the 962 Firewords caught by the BASE Education system, 679 (71%) were safe and 283 (29%) were unsafe.

122 of the unsafe Firewords contained violent themes such as descriptions of past violent events and hypothetical violent solutions. 13 of the unsafe Firewords were threats of violence which included threats towards peers and teachers. 19 of the unsafe Firewords contained themes of self-harm and suicide. 18 of the unsafe Firewords contained evidence of substance use and addiction. 66 of Firewords contained depressed themes such as self-deprecating rhetoric and disclosing feelings of depression. 45 of the unsafe Firewords contained themes of bullying which included confessing to bullying or confessing to being the victim of bullying. This data can be found in *Table 4*.

	Violent Themes	Threats of Violence	Self-Harm/Suicide	Substance Use and Addiction	Depression	Bullying
Total	122	13	19	18	66	45
Percent of total unsafe Firewords (n=283)	43.10%	4.59%	6.71%	6.36%	23.32%	15.90%
Percent of total Firewords (n=962)	12.68%	1.35%	1.97%	1.87%	6.86%	4.68%

Table 4. Breakdown of the Firewords caught by the BASE Education system

Conclusions

Course Conclusions:

The findings for the course related data overall reflected positively for BASE Education. The average course completion was 87% and 445 (71%) of the 625 modules were completed in their entirety. This reflects well on the BASE Education format and content because a substantial number of participants consumed the majority of the course content.

The most encouraging results came from examining trends in disclosure. On average, participants disclosed 10 personal aspects of their lives per module. These results show support for claiming a variety of conclusions such as proving that the content in the BASE courses elicit personal reflection from the users, which is an importance part of learning and retention. Additionally, this number helps prove that users feel safe enough to share personal stories on the BASE Education website, which supports the overall format of BASE.

Future studies should examine the interaction between number of courses assigned and course completion to find the optimal number of courses to assign to promote maximum course completion.

Demographic Conclusions:

In terms of age, there were no significant correlations between age and completion percentage, age and engagement amount, age and disclosure amount, and age and Fireword type and frequency. While a significant conclusion cannot be made with insignificant data, these results point out that the BASE Education courses are compatible for ages 11 to 18. In other words, it would have reflected poorly on BASE if participants who were older completed more courses, disclosed more information, and engaged more. Instead, age was not a factor in differences in completion, disclosure, engagement, and Firewords. While statistics aim to find differences and not similarity, the lack of significant results or the perceived similarity of results reflects well on BASE. I will reiterate that these results are not as strong as if significant difference were found, however the lack of correlation between age and course factors points out that the BASE format and content is compatible with the middle and high school age range.

In terms of gender, there were significant differences in terms of disclosure and engagement levels. Females disclosed more and had higher levels of engagement than males. These results are no cause for concern because both groups had engagement levels on the higher end of the scoring scale. Possible next steps may include bringing awareness to these results in training to ensure that participants are getting the most out of BASE. In terms of completion percentages, there were no differences between male completion and female completion. In other words, males and females had the same completion percentages. Again, findings that point to a lack of difference are not necessarily strong from a statistical point of view. However, the lack of difference in completion percentages based on gender reflects well on the BASE format and content.

Firewords Conclusions

The results for the Firewords were astounding. In the course responses of 218 participants, the BASE Education system caught 283 unsafe responses. 29% of the Firewords caught by the BASE Education system were unsafe for a variety of reason, many due to violence and bullying. To be more specific, the BASE system caught 14 threats of violence, all of which included threats towards peers or teachers. These results support the importance of the Fireword feature to pull out potentially dangerous responses.