



Improvement of the Feeling of Self-Affirmation by Using a Self-Reframing Diary System

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Hello!

I am Kanayo Ogura

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Details:

http://souran.iwate-pu.ac.jp/html/200000020_en.html

Topics of research interest

- Computer-Mediated Communication(CMC)
 - I designed some communication tools.
 - CHATEL
<https://dl.acm.org/doi/10.1145/1125451.1125670>
 - Kairos Chat
<https://dl.acm.org/doi/abs/10.1145/1753846.1754045>
- Behavioral Informatics
- Behavior Change Design

I am particularly interested in system design based on the analysis of user behavior.

Research background

- Self-affirmation of Japanese people is far lower than that of other countries[1].
 - In particular, Japan has the lowest percentage of respondents agreeing with the "I am satisfied with myself" question (Figure1)

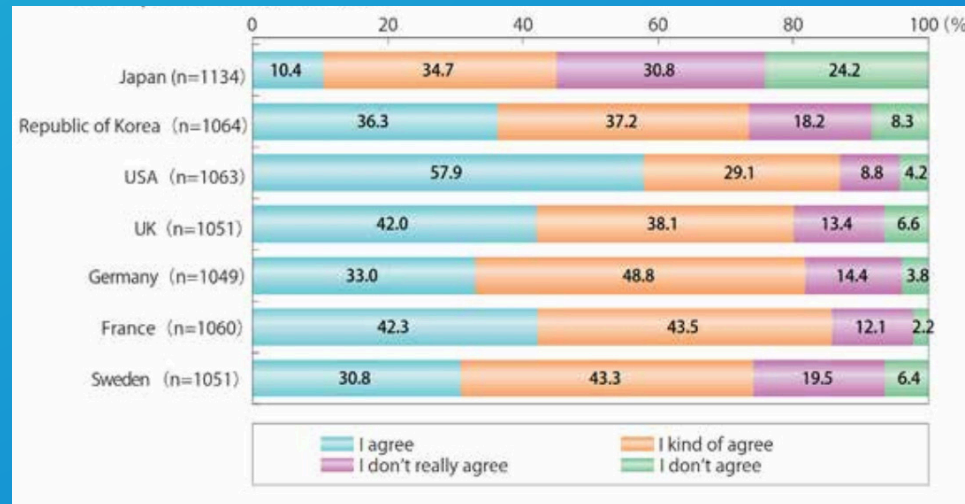


Figure1: Results of "I am satisfied with myself" question by country [1]

What is self-affirmation?

- feelings of being able to positively evaluate one's own state of being and feelings of being able to affirm one's own value and significance of existence.

People with
low self-esteem



- Fear of failure makes it difficult to take action
- Unable to accept compliments honestly

People with
high self-esteem



- It is easy to see things in a positive light and to succeed.
- It is easy to accept yourself for your failures

People with high self-affirmation are more likely
to do well in their daily lives !

Self-affirmation techniques

- Reframing
 - to change the framework of how you look at things and see things from a different perspective
 - used in counseling
- (e.g.) Boredom → Curiosity
- (e.g.) "Surgery with 10% mortality rate."
→ "Surgery with 90% survival rate."

deadlock

Worries, problems,
depression



ideal state

New options and
awareness

Related work

- Sano et al. [2] proposed a diary system gives positive interpretations to negative thoughts.
 - 2 week diary entries
 - reframing by others
 - Others give positive interpretations to negative content in the diary
 - Confirmation of the effectiveness of reframing
 - Negative thoughts of the diary writer decreased

Related work issue

- Sano et al. assume reframing by others
 - It is not always possible to find others who are willing to help with reframing.
 - It is better to be able to improve your own self-affirmation.

We examine whether self-reframing can improve self-affirmation.

Research objectives

- We develop a self-reframing diary system to enhance self-affirmation.
- We will confirm the following through an experiment.
 1. Does self-reframing using the developed diary system improve self-affirmation?
 2. Is there a difference in the degree of improvement in self-affirmation between self-reframing and reframing by others?

Our Diary system overview

- Log in with your Google account
- Fill in the following three items about the day's events

1. What Happened Today
2. What I felt at that time
3. My character that could be the reason why I felt

- Prioritize any reflections to be filled in.

- Demo URL: <https://diary-a2c50.web.app/>



Self-reframing method

- If there are negative entries
 - The next day, before writing the diary, reframe the previous day's diary.
- If there are no negative entries
 - No need to reframe.
- If you have trouble reframing
 - Use a list of expressions of disadvantages replaced by expressions of advantages.

Example of a diary entry

- What Happened Today
 - I made a presentation material for the seminar in the laboratory.
- What I felt at the time
 - I kept getting sidetracked and never made any progress.
- My character that could be the reason why I felt.
 - Lack of concentration
- reframing
 - Curious about many things

今日の振り返りをしよう！

今日の出来事

"What happened today"

その時感じたこと

"What I felt at that time"

そう感じた理由として考えられる自分の性格

"My character that could be the reason why I felt"

投稿する やめる

Post Cancel

自己肯定感を高める日記帳システム

ログインユーザ：木村理恵さん

[使い方](#)

リフレーミングをしよう！

(Reframing Field)

返信する やめる

Reply Cancel

[リフレーミングに困ったときはこちら](#)

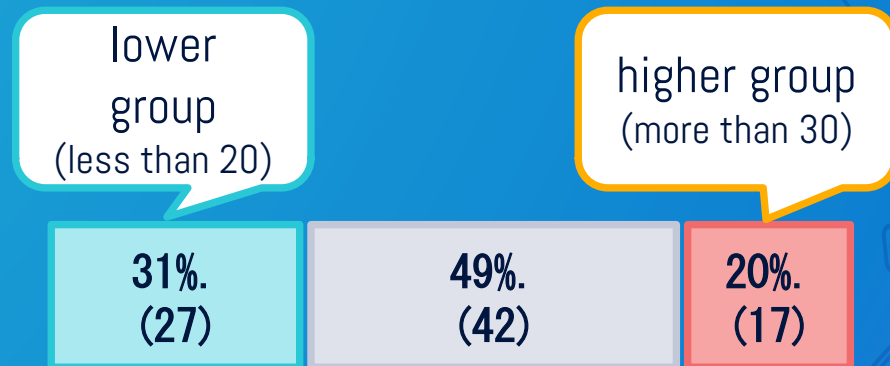
Help page for reframing

Current Survey

- Objectives
 - Survey on college students' self-affirmation
 - To find the subjects for the experiment of using the diary system
- Outline of survey
 - Period: July 1, 2022 - July 10, 2022
 - Target: all of our faculty's students
 - Method: Using the RSES-J scale which is a measure of self-affirmation [3]
 - Number of responses: 86

Results of Current Survey

- Highest score: 40
(1 person, perfect score)
- Minimum score: 10
(1 person)
- Ave.: 23.87
 - Japanese Ave.: 25.0
- SD: 6.81



- Average score is slightly below the Japanese average
- About 1 in 3 people are in the low group

Experiment Summary

- period: 2 weeks
 - Reframing worksheet on the first day
- Subjects: 19 males and females
 - undergraduate and graduate students
- Self-reframing group: 9 participants
- Reframing by others group: 10 participants
 - Reframing each other's diaries in pairs to avoid bias in the number of reframing

Experimental Procedure

What participants will do

Preparation	<p>Experimental Explanation Signature on the experiment consent form Pre-questionnaire response</p>
Experiment Day 1	<p>Reframing worksheet</p>
Experiment 2-14th day	<p>Diary entries</p> <p>Reframing / Self-reframing</p>
After the experiment	<p>Questionnaire after the experiment</p>

- RSES-J scale after the experiment
- Presence or absence of a regular diary habit
- Difficulty of reframing
- Whether or not feelings have changed

Experimental data

- Number of diary entries
- Number of reframing
- Percentage of positive and negative content
 - The criterion is to focus on the information entered in the personality column.
 - If it can be taken either way, the author will make a decision based on the contents of the diary as a whole.

Experimental results (1/3)

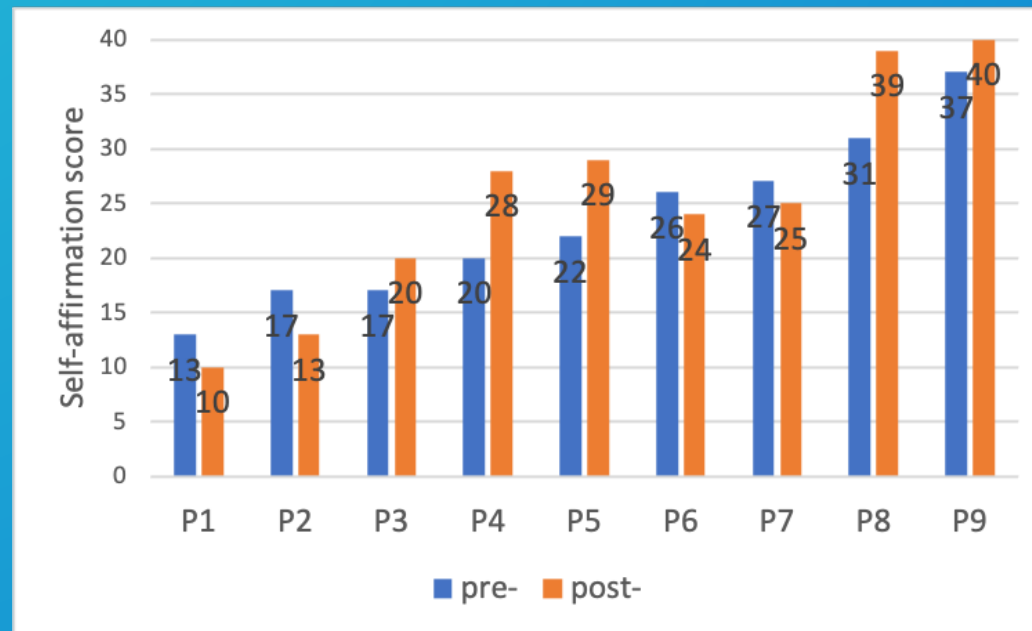
- Changes in self-affirmation scale scores

	Self-reframing		Reframing by others	
	Before Experiment	post-experiment	Before Experiment	post-experiment
average	23.33	25.33	24.40	25.40
standard deviation	7.20	9.66	6.87	6.81
Effect amount Glass's Δ	0.26		0.14	

There were no significant differences.

Experimental results (2/3)

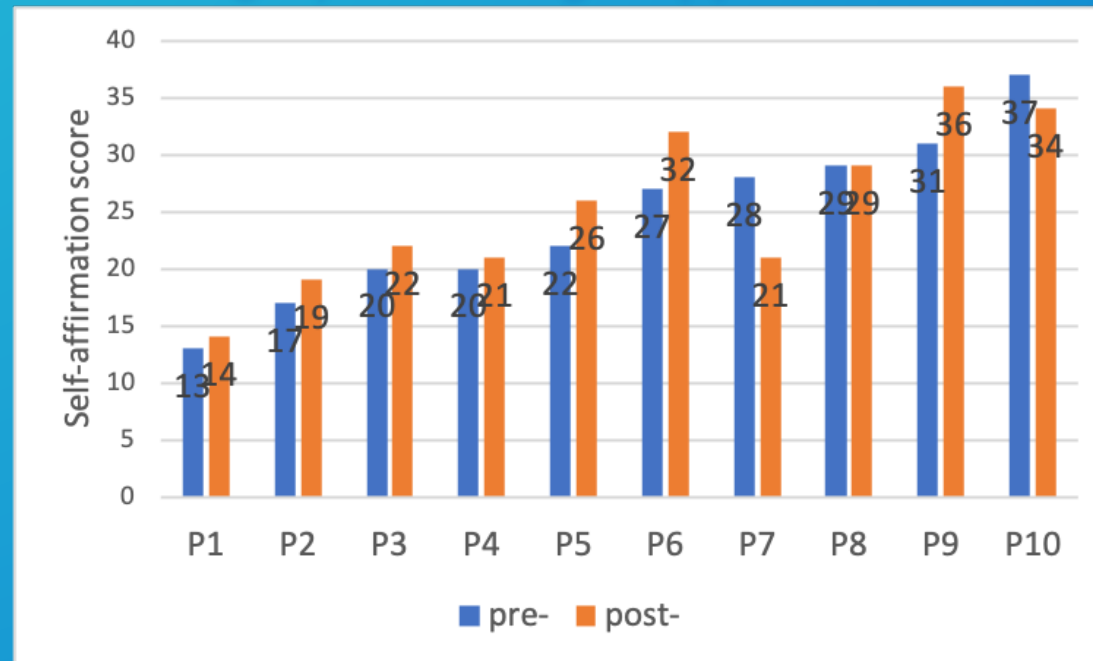
- Changes in self-affirmation scale scores (self-reframing group)



All participants have changes in scale scores
(increase: 5, decrease:4)

Experimental results (3/3)

- Changes in self-affirmation scale scores (reframing by others group)



9 out of 10 have changes in scale scores.
(increase: 7, decrease:2)

Summary of experimental result (1/2)

Does self-reframing using the developed diary system improve self-affirmation?

- 5 out of 9 increased, 4 decreased
 - For the scores of the four participants in the low and average groups, two increased and two decreased.
 - For the two participants in the high group, both scores increased; one of them scored a perfect score of 40.
- Individual differences in the effect of self-reframing
- Further improvement expected for those who originally have high self-affirmation

Summary of experimental result (2/2)

Is there a difference in the degree of improvement in self-affirmation between self-reframing and reframing by others?

- In reframing by others group, 7 out of 10 increased, 2 decreased and 1 remained unchanged.
 - All 4 patients in the low group had increased.
 - 1 of 4 in the average group had increased.
 - Similarly, 1 of 2 in the high group had increased.
- Reframing by others can be more effective than self-reframing.

Consideration (1/2)

- Factors contributing to individual differences in selfreframing effects
 - Difference between having a habit of keeping a diary and not having a habit of keeping a diary
 - 5 of the 17 participants who did not have the habit of keeping a diary had decreased self-affirmation
- We will consider methods of self reframing other than diaries in the future.

Consideration (2/2)

- The duration of the experiment
 - In the post-experiment questionnaire, 14 of the 19 participants, including those whose scores on the self-affirmation scale did not increase, showed a positive change in their feelings.
- It is necessary to conduct the experiment again over a longer period of time to confirm the effect.

Conclusions

- We developed a self-reframing diary system to enhance self-affirmation, and examined the following two effects.
 1. Does self-reframing using the developed diary system improve self-affirmation?
 2. Is there a difference in the degree of improvement in self-affirmation between self-reframing and reframing by others?

- The results of the experiment confirmed the following three findings.
 1. Effectiveness of self reframing varies among individuals
 2. Effective for people who have high self-affirmation originally.
 3. Reframing by others is more effective

Future works

- We plan...
- to consider methods of self reframing other than diaries
- to conduct the experiment again over a longer period of time to confirm the effect



Thanks!

If you have any questions or comments
on our study, please send me E-mail !

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References

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[3] T. Uchida and T. Ueno, "An examination of the reliability and validity of the Rosenberg Self-Esteem Scale: Using the Japanese version translated by Mimura & Griffiths," Annual Report of the Graduate School of Education, Tohoku University, Vol. 58, No. 2, 2010. (in Japanese)