

Collaborative education program design for environmental civic action

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Why Civic Action Matters ?

- Geels (2004, 2011) noted the importance of the ‘**sustainability transition**,’ which means the deep-structural changes of society.
- To promote sustainability transition, we need to encourage **collective** pro-environmental actions **participating in society**.

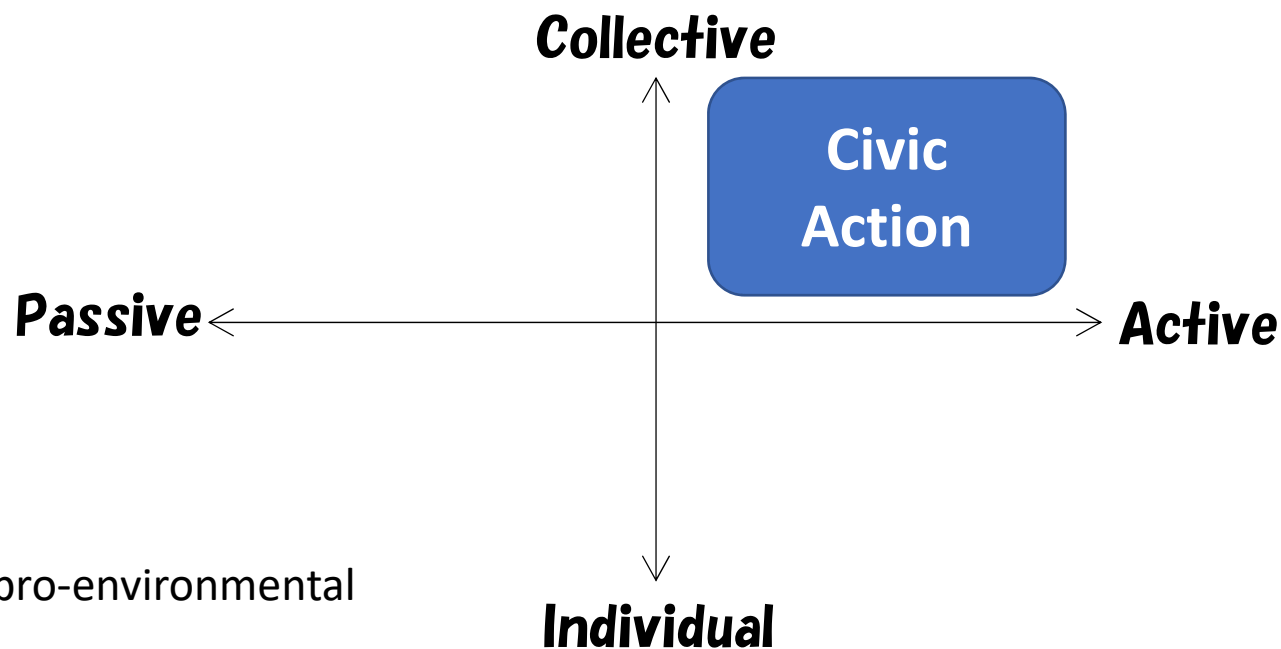


Fig. Type of pro-environmental behaviors
(based on Sato and Takaoka 2013)

Examples of Civic Actions

Deutschland.de



Protest of
“Friday for Future”

Kyoto Kogomi net



Action for reducing festival waste

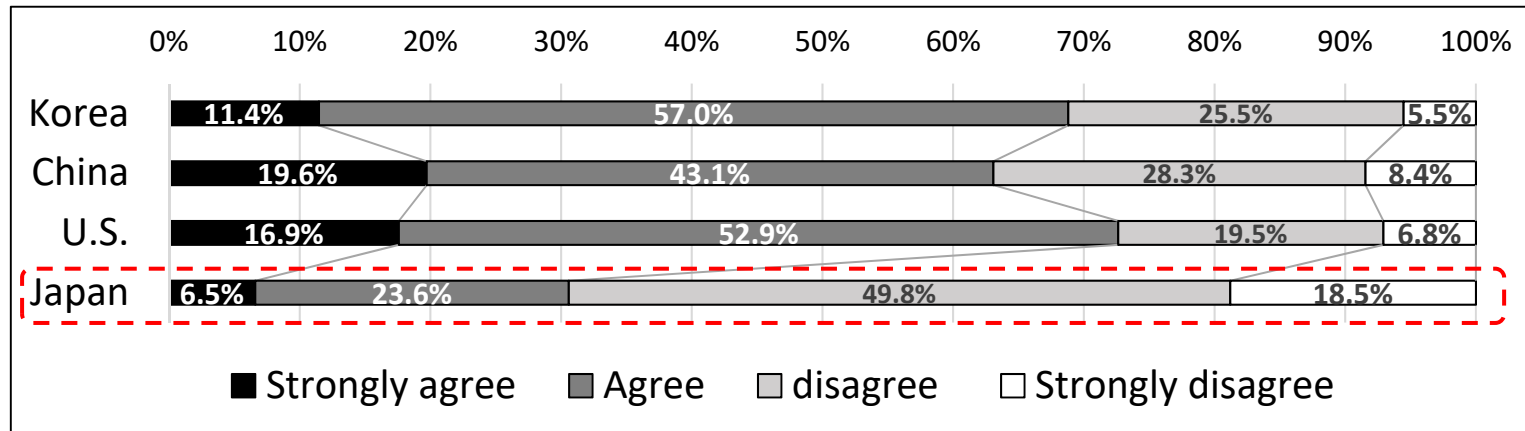
J-cast news



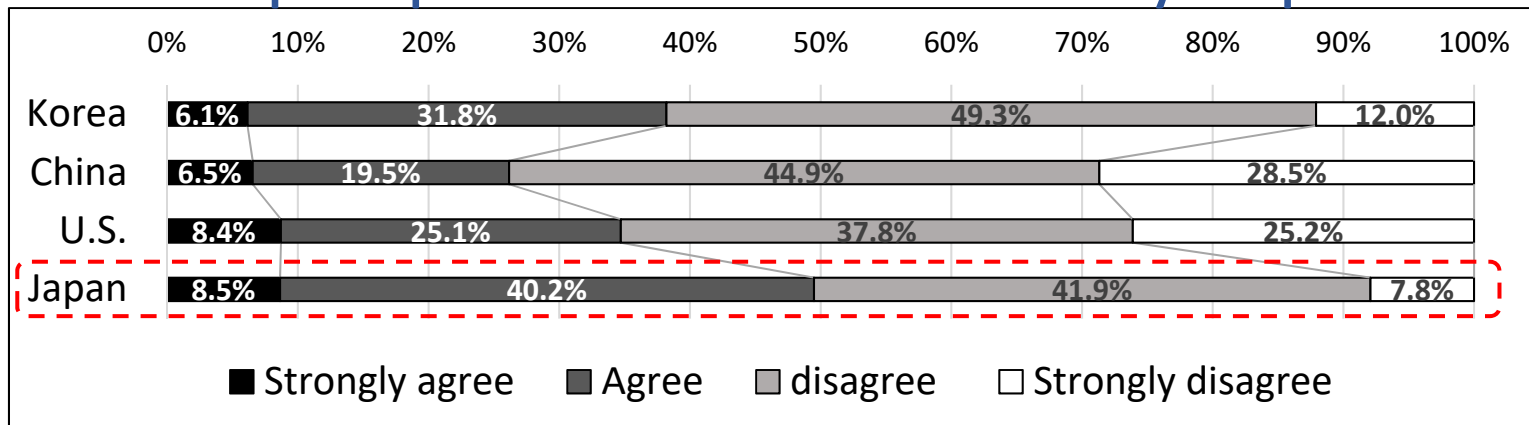
Developing system for Food Loss

Weak Self-Efficacy and Commitment for Social Issue

I can change the present situation to the desirable direction by getting involved in social issues.



I do not want to participate because social issues are very complicated.



Issues on environmental civic action in Japan

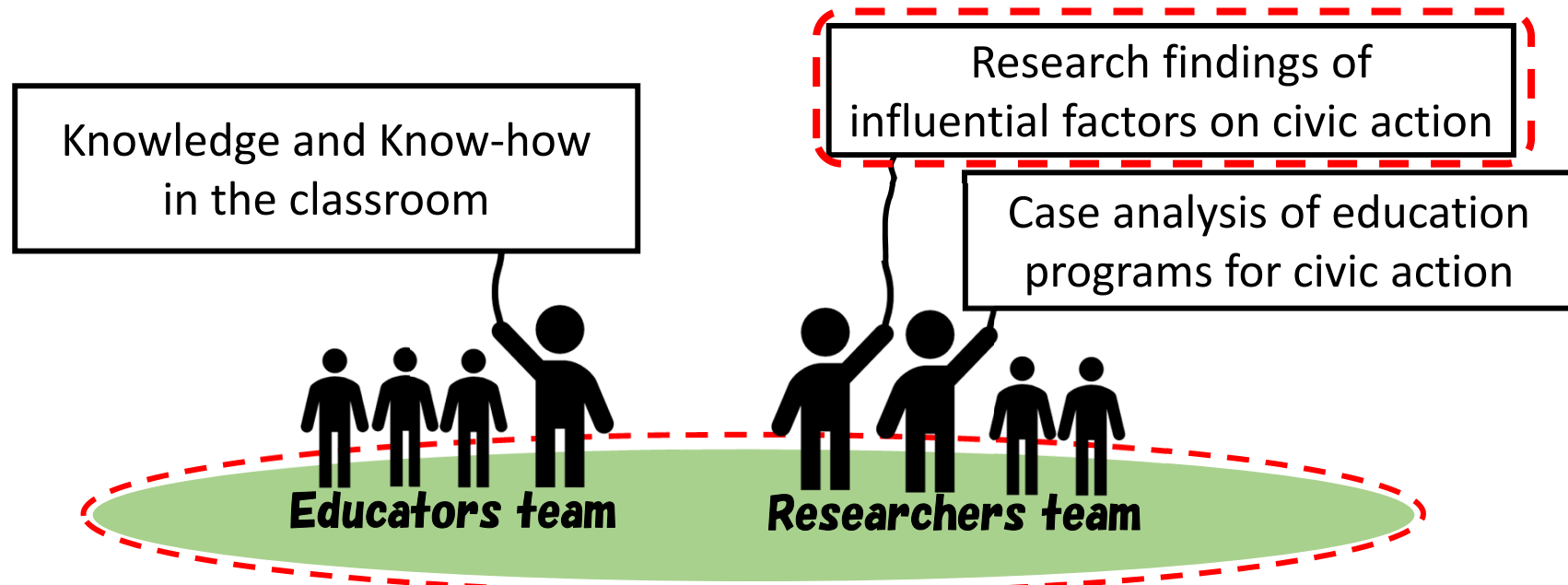
Cultural Issues

- ✓ Less opportunities to experience
- ✓ Too much peer pressure impeding new type of actions

Educational Issues

- ✓ Less programs and learning materials
- ✓ Less knowledge on how to design educational programs

Our Research Approach



Work together!

Developing Educational Program
for promoting learner's environmental civic action

Analysis of influential factors on civic action : **Method**

■ **Online survey target**

Japanese high school and college students aged 15 to 22 (n=2,136)

Japanese adults aged 20 to 69 (n=10,000).

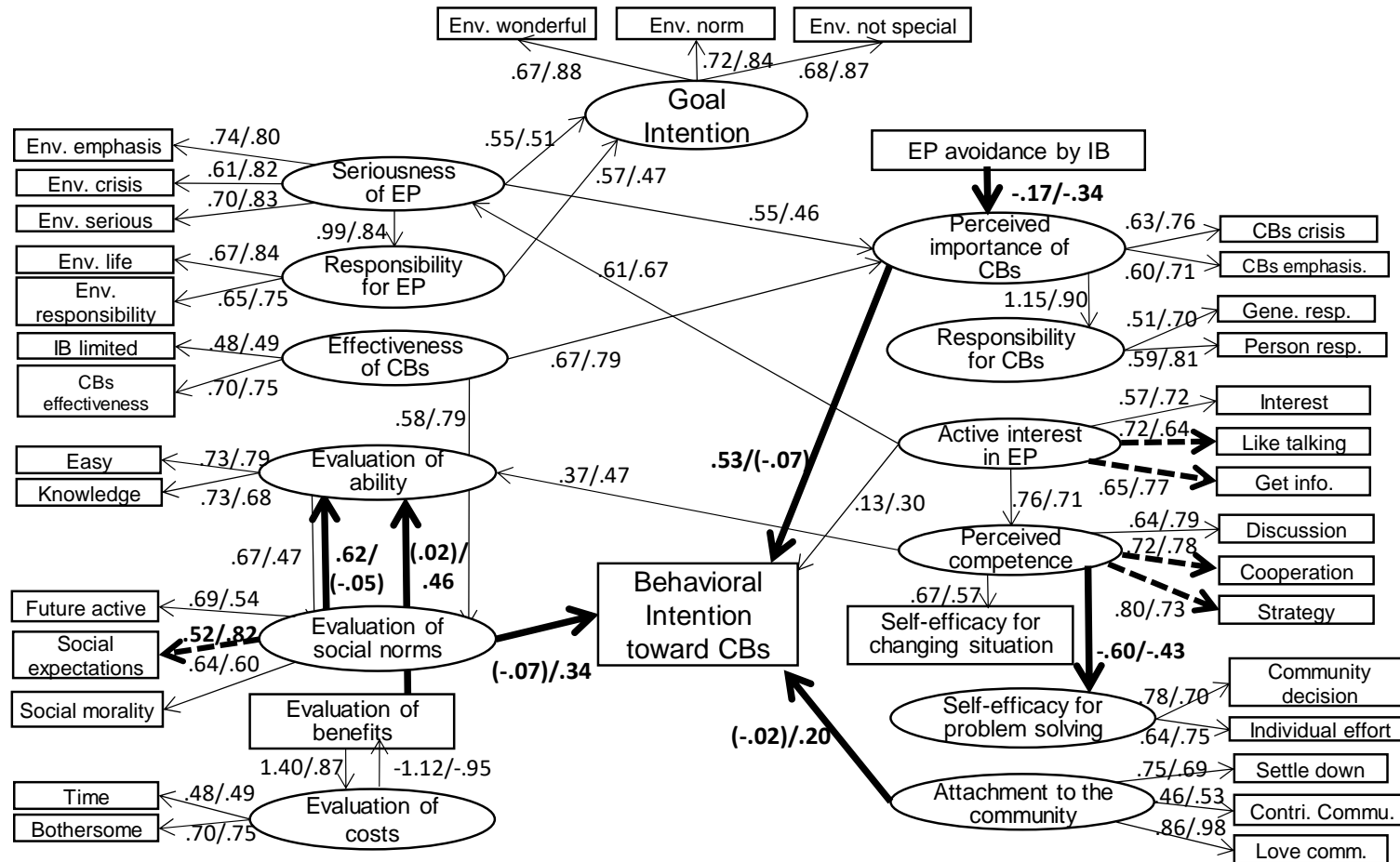
■ **Targeted civic action**

Participation in the activity to introduce a renewable energy system to the community

■ **Statistical analysis**

- ✓ Analyzed the relation between behavioral intention for the targeted civic action and social and personal factors by **variance analysis**
- ✓ Analyzed influential psychological factors on the targeted civic action by **Multiple-group simultaneous covariance structure analysis**

One of the results : Multiple-group simultaneous covariance structure analysis -Between strong and weak behavioral intention groups of youth-



- Bold arrows represent the paths that are significantly different at the 5% level between groups
→ Between the explanatory variables
-> From latent variable to observable variable

- Figures at arrows represent standardized path coefficients: Strong/weak behavioral intention group
 No parentheses: Significant at the 5% level
 In parentheses: Not significant

Results Summary of Psychological Factors Analysis

Environmental civic action get positive influenced by...

✓ **Perceived importance of civic action**

It might be important
To get knowledge about civic action and learn its effectiveness



✓ **Responsibility for civic action**

It might be important that
Students have the initiative in learning for civic action



✓ **Active interest in environmental problems**

It might be important
To set deep and interesting question without correct answer



✓ **Experience of civic action**

✓ **Perceived competence for collaboration**

It might be important
To get opportunities to experience civic actions with stakeholders



Discussion with Researchers and Educators

We have discussed about...

- ✓ Understanding and needs of education for promoting environmental civic action in educational sites
- ✓ Strategy to popularize education for promoting environmental civic action

- ✓ Design points of educational program for promoting environmental civic action



Design Points of Educational Program

- ✓ **Program must provide enough time and materials to learn about the strategy of civic action**
 - ➔ *To get knowledge about civic action*
 - ➔ *To enhance perceived importance of civic action*

- ✓ **Students can decide their approach and goal by themselves**
 - ➔ *To enhance responsibility for civic action*

- ✓ **Program must deal with the real conflicting problems**
 - ➔ *To arousing student's interest in environmental problems*

- ✓ **Program must include actual practices of civic action**
 - ➔ *To get experience of civic action*
 - ➔ *To foster collaborative competence and self-efficacy*

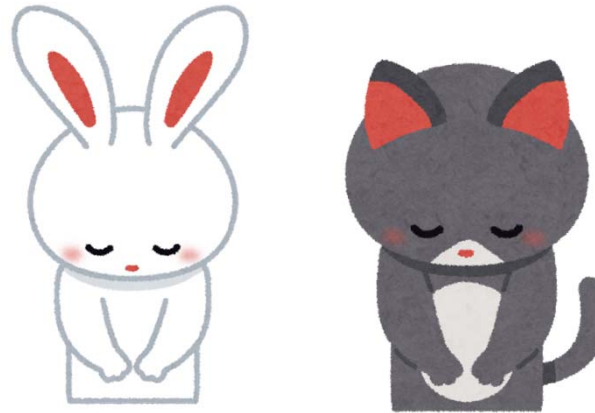
Future Works

- ✓ Analyze more program cases and find best design to promote civic action for Japanese youth
- ✓ Analyze process and influential factors of Japanese youth engaging civic action
- ✓ Develop the model educational program collaborating with researchers and educators

... **and get fund!**



Thank you for your attention!



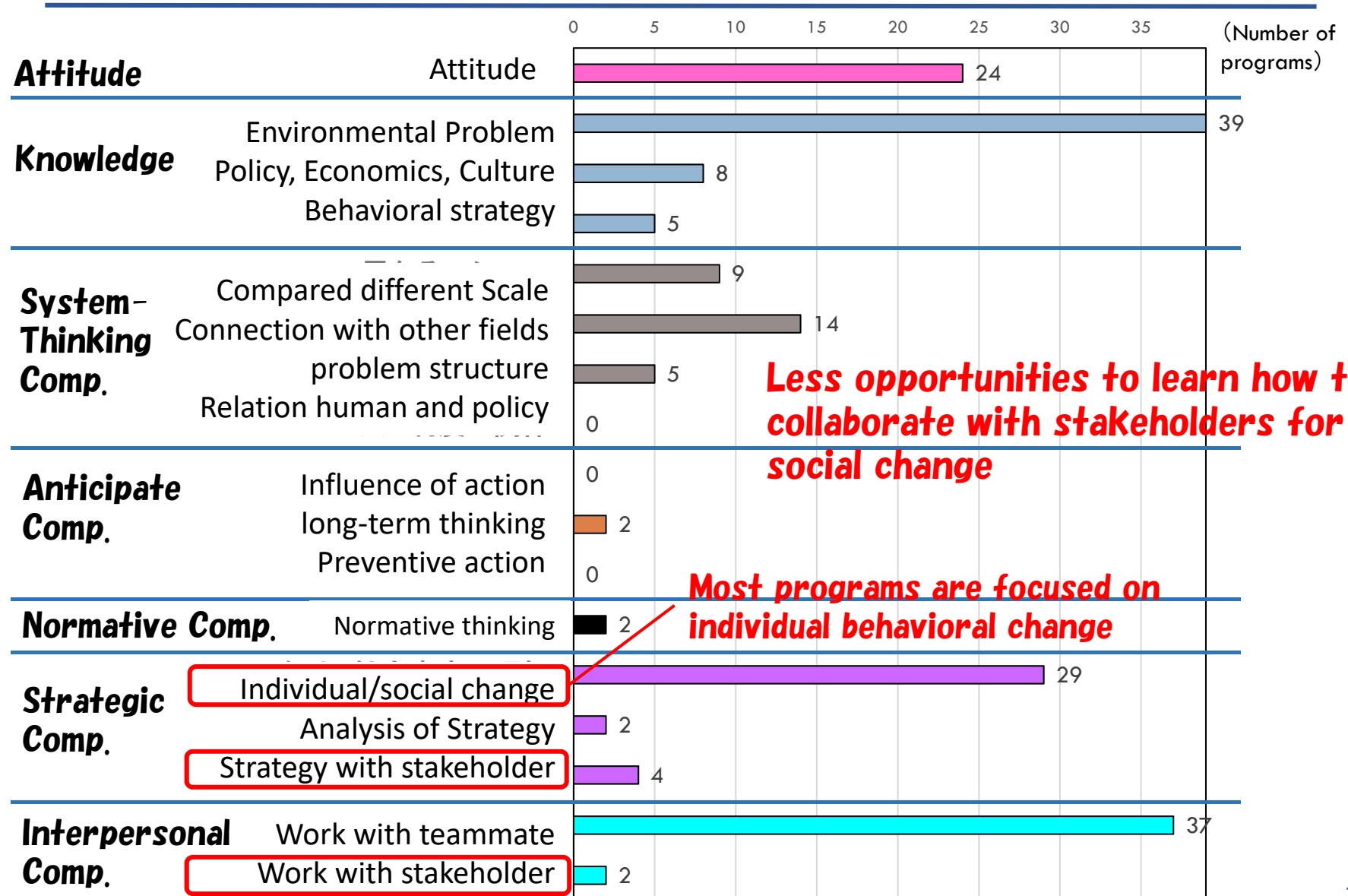
If you want to know more about the research of influential factors on civic action, please see :

Mori and Tasaki, Factors influencing pro-environmental collaborative collective behaviors toward sustainability transition – a case of renewable energy, Environmental Education Research, 2018

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Appendix

Result of Japanese ESD programs analysis



Appendix

Analysis of influential factors on civic action : **Survey items**①

Personal and Social factors

Name	Detail
Sex	2 groups
Age group	6 groups (high school and college student, twenties, thirties, forties, fifties, sixties)
Leisure time	4 groups divided according to the response of survey item about leisure time
Fundamental character	3 groups divided according to the score of survey items about sociability, activeness, sympathism, progressiveness.
Social capital	3 groups divided according to the score of survey items about number of friends in community, reliability for community, close person engaging community activities, use of SNS.
Educational record	6 groups divided according to educational record
Income	3 groups divided according to income level
Occupation	7 groups divided according to occupation
Interest in social issues	4 groups divided according to the response of survey item about interest in social issues
Interest in politics	4 groups divided according to the response of survey item about interest in politics
Custom of voting	4 groups divided according to the response of survey item about frequency of voting
Experience of community activity	3 groups divided according to the response of survey item about past experience of NGO or community activity
Performance level of individual pro-environmental action	5 groups divided according to the score of survey items about performance of individual pro-environmental actions
Experience of civic action	4 groups divided according to the score of survey items about past experience of civic action in the community
Satisfaction level of past civic action	5 groups divided according to the score of survey items about satisfaction of past civic actions

Appendix**Analysis of influential factors on civic action : *Survey items* ②**

Psychological factors on civic action

- ✓ Perceived seriousness and responsibility for environmental problems
- ✓ Perceived effectiveness of pro-environmental behaviors
- ✓ Goal intention (intention to make some contributions to solve environmental problems)
- ✓ The evaluation of feasibility, costs versus benefits, and social norms of its behavior

- ✓ **Perceived collaborative competence**
- ✓ **Self-efficacy for community problems**
- ✓ **Attachment to community**
- ✓ **Active interest in environmental problems**
- ✓ **Intention toward collective behaviors**