

Creating social capital in classrooms: how different pedagogical methods could empower students and stimulate civic engagement

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(Note: the research is still ongoing. This draft only included partial results. Please email the author for a more updated version of this study. Thanks!)

Abstract

Social capital is seen as an important resource to community and societies as an alternative to the more common forms of capital such as physical and human capital. The dense network woven by the associational behavior of individuals can provide support as well as transmit valuable information. While the positive effects of social capital have been documented by abundant literature, how social capital could be created and particularly whether it is possible to utilize effective teaching methods to create social capital has been understudied.

This study utilizes quasi-experiments¹ to test different interventions' effectiveness in empowering teenage students to increase civic engagement and accumulate social capital within networks that they are embedded in. Utilizing "leadership in the form of public narratives," "world trade simulations," and "student facilitated public discussions," – three pedagogical interventions the author has practiced for many years in multiple cities in China and the U.S. – this study found that these three workshops could increase the level of trust and norms of reciprocity within groups in just a few hours. The motivational, analytical, and practical tools used in such interventions could be effective in future civic engagement educations and grassroots organizing.

¹ IRB approval was received on 14 June 2019 at the author's institution.

Introduction

Social capital may be understood broadly as a set of networks that extend throughout society and a set of norms – especially trust – that facilitates voluntary association beyond family and clan. Research on the topic, stretching back to Tocqueville, now encompasses all of the social sciences (for overviews see Baron, Field & Schuller 2000; Dasgupta & Serageldin 2000; [Kawachi](#), [Subramanian](#) & Kim 2008; Lin 2001).

This prodigious body of work focuses mostly on the possible effects of social capital, which are many and various. Social capital has been credited with diminished crime (Akçomak & ter Weel 2012), improved health (Kawachi et al. 2008), increased investment and long-term economic growth (Evans 1997; Knack & Keefer 1997; Woolcock 1998), democratization (Diamond 1996; Paley 2001; Gibson 2001), and improved governance/lower corruption (La Porta et al. 1997; Levi 2003; Miguel et al. 2004; Putnam 1993; Tsai 2002), among other things.

However, the causes of social capital are mysterious (Boix & Posner 1998; Glaeser, Laibson & Sacerdote 2002). To be sure, scholars have tracked individual attributes associated with social capital, e.g., age, education, homeownership, occupation, mobility, religiosity, and television-watching (Brehm & Rahn 1997; Glaeser, Laibson & Sacerdote 2002; Hooghe & Stolle 2003; Meulemann 2008; Portes 1998: 7-10). It is an open question, however, whether these factors are causal or merely correlational given that evidence is drawn mostly from surveys, where assignment to treatment is unlikely to be as-if random. Even if some of these factors play a causal role, it is questionable whether they can explain macro-level outcomes (at country or regional levels).² The poignant contrast between Northern and Southern Italy highlighted by Robert Putnam (1993) several decades ago thus remains largely unanswered – or, more accurately, is open to many answers (Tarrow 1996).

Among possible causal factors that seem to operate broadly at societal levels, two have gained prominence in recent years. One argument rests on *social diversity* (Alesina & La Ferrara 2002; Anderson & Paskeviciute 2006; Putnam 2007). This is thought to diminish social capital insofar as people may be less inclined to associate with, and to trust, others deemed different from themselves. While the argument is highly plausible, it is difficult to wrap one's mind around diversity as a macro-level treatment. The concept is notoriously hard to measure, virtually impossible to manipulate, and highly “constructed,” and hence perhaps endogenous to unmeasured background factors (e.g., nation-building or modernization) or to outcomes of theoretical interest (e.g., health, governance, growth).

A second prominent argument rests on the *quality of government* ([Freitag](#) & Buhlmann 2009; Gambetta 1993; Hall 2002; [Mettler](#) 2005; Rothstein 2011; Tarrow 1996). Where states provide public goods, socializing members of the population into the duties of citizenship, enforcing the rule of law, treating everyone in a fair and non-arbitrary fashion, and representing social groups in a proportional fashion, it is assumed that citizens

² Glaeser, Laibson & Sacerdote (2002: F439) note, “the complexity of aggregation means that the determinants of social capital at the individual level may not always determine social capital at the society-level.”

will learn to trust one another and to engage in civic activity. This argument is also plausible, but also difficult to prove. As with social diversity, the quality of government is hard to measure and of questionable exogeneity. Indeed, the assertion that the quality of government comes before social capital runs directly against a primary claim of social capitalists like Robert Putnam (1993) – that governance is endogenous to social capital.

Other macro-level arguments about the source of social capital – resting, e.g., on inequality (Boix & Posner 1998), social movements (Minkoff 2001), or democracy (Muller & Seligson 1994) – encounter similar problems. This does not mean that they are wrong. But it does mean that we are at pains to assess this genre of theorizing. We do not know, and by the nature of the evidence cannot know with much certainty, which factor(s) is causally exogenous.

For those who wish to claim causal status for social capital, the failure to explain its origins contributes to a persistent problem of causal identification. Not only is the treatment of theoretical interest (social capital) non-manipulable, but so are its apparent antecedents (e.g., social homogeneity or good government). Consequently, it is difficult to say what it means for social capital to “cause” an outcome.

In this study, I utilize specific pedagogical interventions that have been used in community organizers’ training, grassroots public discussions, and leadership workshops to study subsequent changes in social capital following the interventions. Using classroom settings, I was able to manage the treatment assignment and assess the pre-test and post-test social capital values. In addition, the subjects’ willingness to participate in civic activities is also assessed. I argue that, at least in the short term, social capital can be created through the cultivation of motivational (the heart module), analytical (the head module), and practical (the hand module) capacities. The higher-risk trust did not increase in China but had a moderate increase in the U.S. after interventions.

This will not solve the conundrum of why some societies, over long periods of time, develop high or low levels of social capital. Nonetheless, it sheds light on some of the proximal causes that contribute to the growth of social capital.

The three pedagogical interventions

The three pedagogical interventions used in this study have long been practiced and tackles empowering individual participants with their motivational, analytical, and practical capabilities, which focus on individuals’ heart, head, and hand respectively. I call this the “three-H approach.”

The “heart”

The motivational (heart) component originates from Dr. Marshall Ganz' Harvard Kennedy School classes and workshops,³ which have trained thousands of community organizers in the U.S. and abroad. Ganz has been referred to as the architect of Barack Obama's 2008 grassroots organizing effort (Bieber 2011) for building a robust and broad support base for the campaign.

Inspired by Ganz, I co-founded a student organization at Harvard in 2012 (now a registered NGO) to train civil society leaders from China so that organizers in China will also be able to cultivate their moral resources and enable others to better achieve their shared goals. I have personally taught this workshop in the U.S. and China for over a dozen times and am currently teaching a class at Christopher Newport University based on this approach.

The key idea of this workshop/class is to teach participants to reflect on major life challenges they have had, the choices they made when faced with those challenges, and the values that are reflected based on the choices made and the outcomes and then use story-telling to construct their personal narratives. Through such effective communications, participants will be able to convey the values they believe in, establish grounds for trust, empathy, and understanding, and discover common purposes with others. Ganz' public narrative framework involves three stories: a story of self, a story of us, and a story of now. Given the scope of this study, only the story of self is used for the motivational intervention.

The "head"

The analytical (head) component originates from the Interactivity Foundation (IF)'s public discussion frameworks.⁴ Through a process of brainstorming concerns, constructing policy possibilities, and exploring implementations from multiple and diverse perspectives, the discussion process encourages and prepares individual citizens to think critically, analytically, and constructively about political and social issues.

I became a participant of IF discussions in 2009 and have been a facilitator for IF's grassroots discussions for more than ten years in multiple cities in the U.S. and China. Participants in my discussions range from teenagers to over 100 years old and had very diverse backgrounds. I have also introduced the IF discussion process in the public policy classes that I previously taught. The student-facilitated discussions could be effective in creating bonds and trust within the classroom.

The key idea of the IF discussions is to involve citizens to engage collaboratively in meaningful civic conversations about public matters in small groups. The discussion process would ask participants to explore diverse perspectives and generate an expanding set of divergent possibilities. The name of the foundation also echoes a common question

³ Ganz, Marshall, "Public Narrative: Leadership, Storytelling, and Action." <<https://www.hks.harvard.edu/educational-programs/executive-education/public-narrative-leadership-storytelling-and-action-2>>

⁴ The Interactivity Foundation <<https://www.interactivityfoundation.org/>>.

explored in the discussions: “what if?” Previous studies of the IF discussions have found that they are effective in empowering minority students (Lea & Sun 2014).

The “hand”

The practical (hand) component originates from the EduRunner Program, a program that cultivates youth development through capacity building, team collaboration, and social participation in the U.S. and China. The specific module used in this study is a simulation of world trade in which participants are divided into different groups, and each group receives different quantities and types of resources (such as pencils, rulers, scissors, protractors, papers with different colors, etc.) Groups will negotiate for resources, produce the shapes listed by the instructor (circles, rectangles, triangles, and squares), and trade the products for a profit. The instructor will make live announcements to change the price of certain resources or products or even disqualify an entire group of products (say products made by colored paper). Even though the goal is profit maximization, alternative goals and criteria, such as integrity, friendship, collaboration, environmentalism, are discussed during debriefing.

I initially ran the simulation as an instructor of EduRunner for student camps in China but have since incorporated it in multiple classes that I teach, including international political economy, and comparative and international politics. The simulation provides the hands-on experiences of collaborating with other group members to achieve shared goals – of course, key theories and lessons learned from the process are also beneficial.

Methods

In order to measure the change of social capital before and after different pedagogical interventions, I taught three parallel half-day workshops in Shanghai and an additional repeat of the heart module in the city of Zhengzhou. Each student was assigned by my partnering co-organizer in Shanghai into one of the three days. Although the process did not strictly follow a randomized assignment of treatment conditions, the promotional material’s descriptions were identical for the three workshops which were described as “leadership workshops by a professor at an American University.”

At the beginning of each workshop, a pre-treatment round of the survey was conducted. Immediately after each workshop, a post-treatment round of the survey was conducted, then followed by discussions and debriefings. The same three workshops were also conducted in the U.S. with American students so that similar interventions’ effects on different countries could be compared and analyzed – although the sample size in the U.S. (26) is much smaller than that of China’s (200).

The students in these workshops are assumed as like-unites. Based on this quasi-experimental design, the observable changes of social capital that occurred within each workshop pre- and post-treatment could be attributed to the pedagogical interventions, and the differences in the changes between the groups or between countries could be attributed to the different pedagogical interventions’ effectiveness.

The key dependent variable is social capital, which is operationalized by two key questions:

- If you have \$100 right now, a member of your team wants to borrow money from you (without telling you the purpose), how much would you be willing to lend to your teammate? (Please write down a number between 0-100: _____)
- If it is YOU who hopes to borrow from your teammate, how much do you think your teammate will lend you? (Please write down a number between 0-100: _____)

The first question intends to measure low-risk trust while the second question intends to measure norms of reciprocity. Lending money to others could expose the subjects with the risk of not getting the money back. But the risk, in general, is expected to be easier to tolerate by the subject. The expectation of how much others are willing to lend the subject is a proxy of how much reciprocity exists within the small group. In order to measure a more intimate type of trust (or trust with higher risks) as well as their inclination of civic participation, two additional questions were added:

- If a member of your team hopes to stay on your couch for a night tonight (you don't have a guest room,) how bothered will you be? (circle one)
a) Not at all b) not too bothered c) in between d) somewhat bothered e) very bothered
- If someone from your team asks you to participate in a one-day discussion on public issues (suppose you don't have very important things to do that day), will you participate?
a) Certainly not b) not that likely c) in between d) maybe will e) will certainly go

Besides these questions, the survey includes a mood question (how happy you are on a scale of 1-5) as well as basic demographic control variables, including gender and age. To get more candid responses while allowing the researcher to track the pre- and post-treatment values, each student is asked to come up with a code name which combines a letter, a number and a word (such as A7chicken). Students are asked to remember their code names but no one, except the student herself/himself, will be able to link the code name with the real name, thus making the survey anonymous.

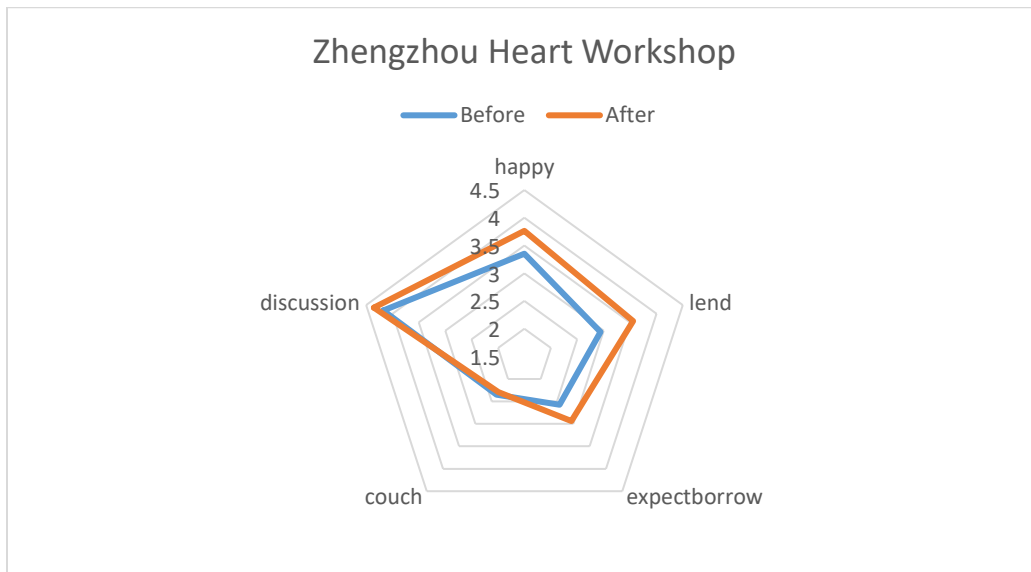
Results and analysis

The radar charts indicate that the average value of low-risk trust and norms of reciprocity both increased with all of the three pedagogical interventions. Levels of happiness also improved across the workshops, although sometimes the effect was small.



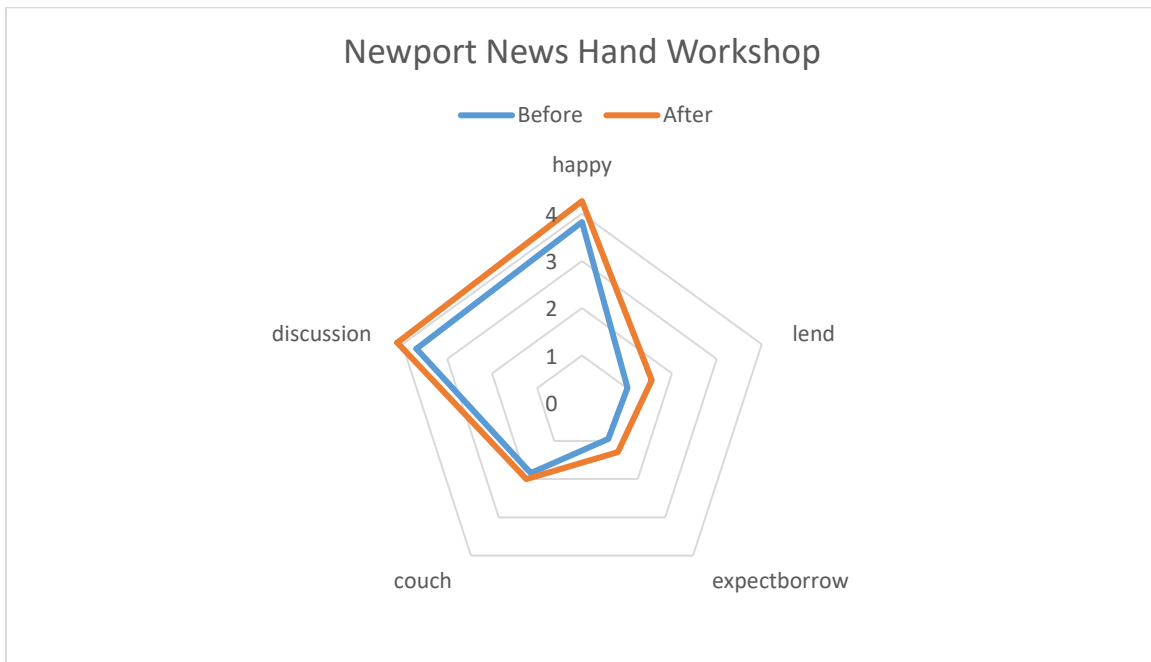
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⁵ Note that the surveys used for the “heart” and “hand” workshops did not ask the “couch” and the “discussions” questions, so the radar charts are triangles instead of pentagons.

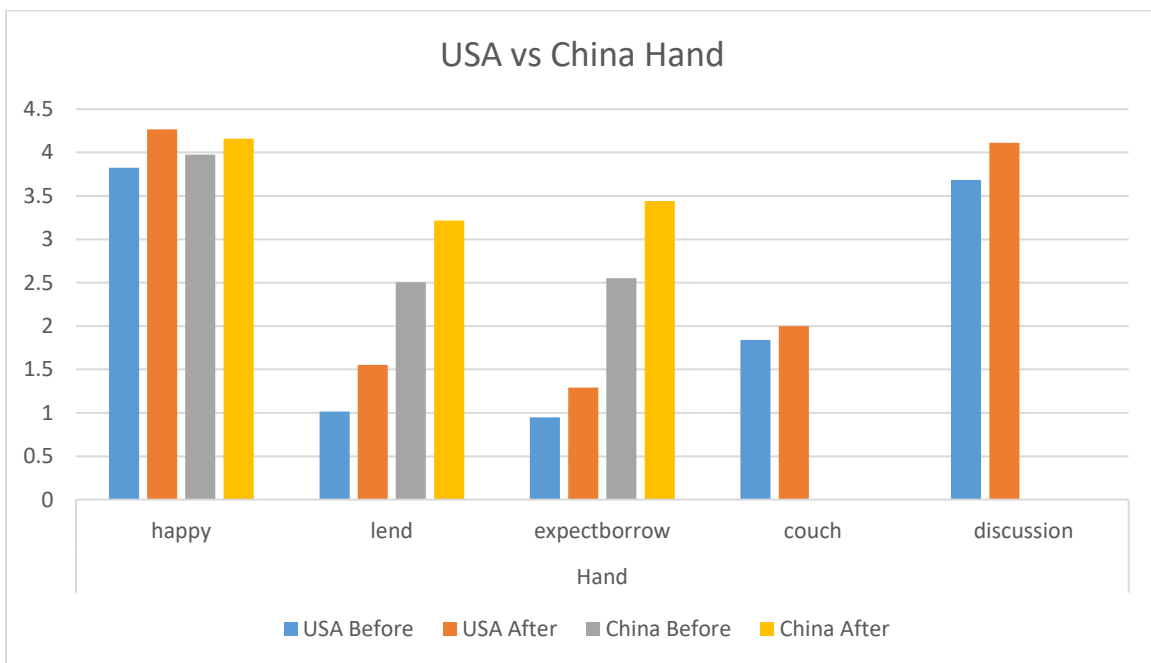
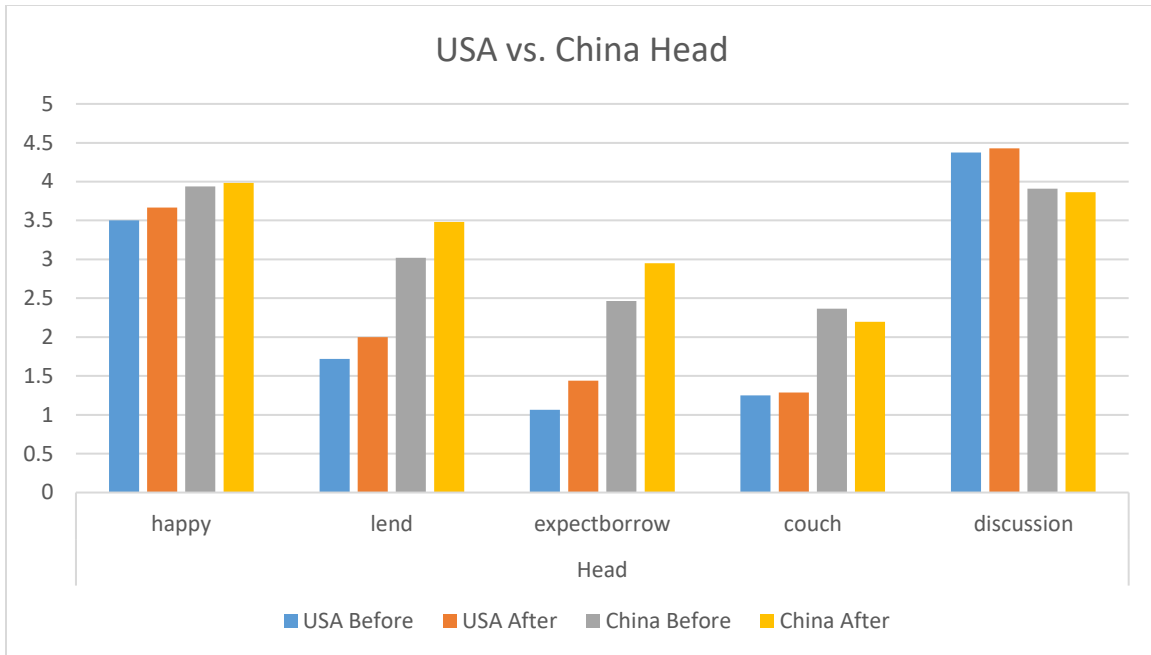


For the Chinese workshops, when higher risk trust was measured (whether you are willing to share your couch for the night), all pedagogical interventions showed a decreased score after the intervention, although the difference is not statistically significant. The civic engagement question, which asks about the subjects' willingness to participate in civic discussions, also had mixed results.

The results for the U.S. group was clearer than that of China's. All of the five key indicators consistently increased across different workshops, indicating that the workshops were effective in increasing short-term social capital and willingness for civic engagement.

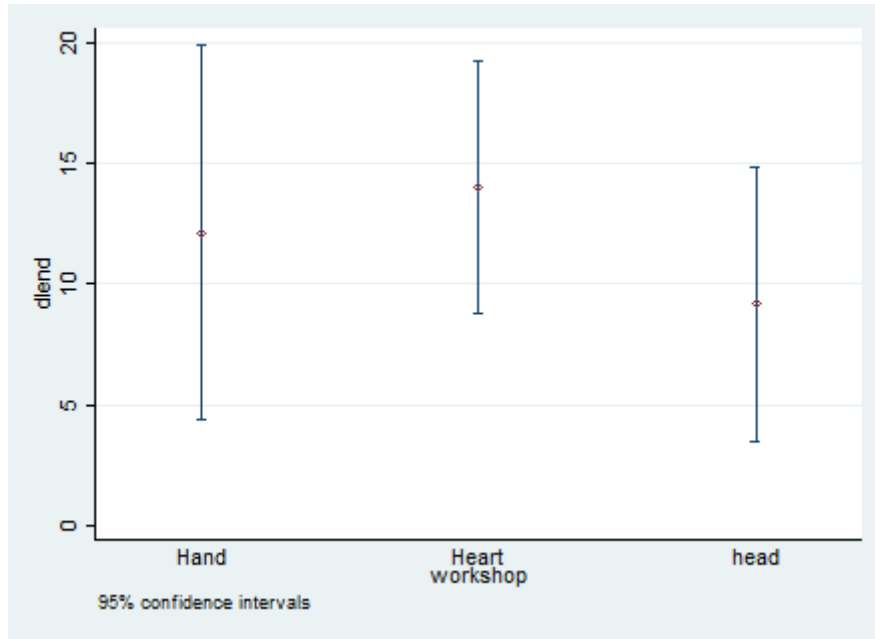


When comparing the outcome between China and the U.S., the result indicates that there are higher initial levels of social capital among Chinese students, but the U.S. workshops' effects on the different indicators were more consistent. The U.S. subjects did have higher initial levels of willingness to participate in civic discussions than Chinese subjects.



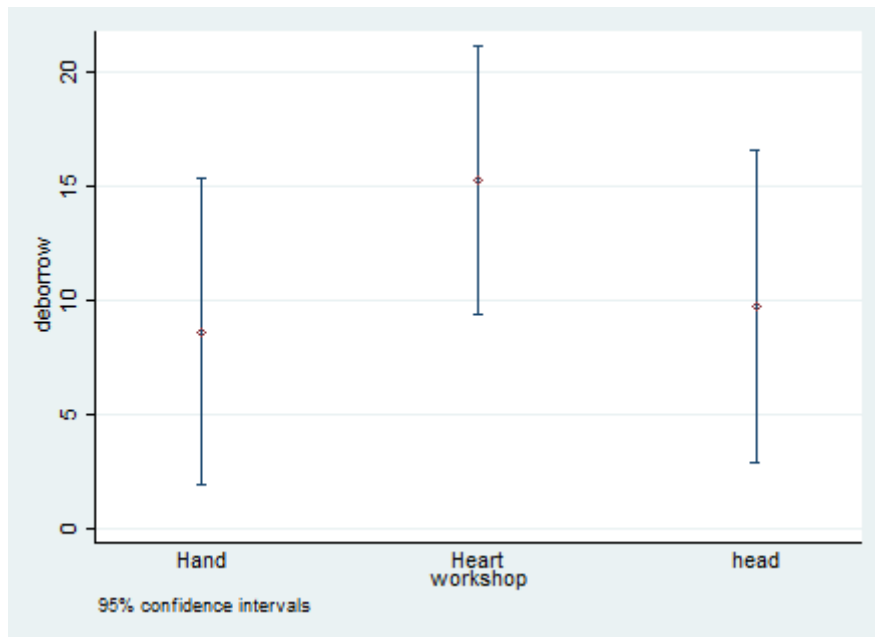
The above results only compare the mean differences between interventions and countries. The 95% confidence intervals based on the distribution of the changes in the variables pre- and post- interventions also reveal the statistical significance of the increase in social capital.

China Lend (measuring low-risk trust)



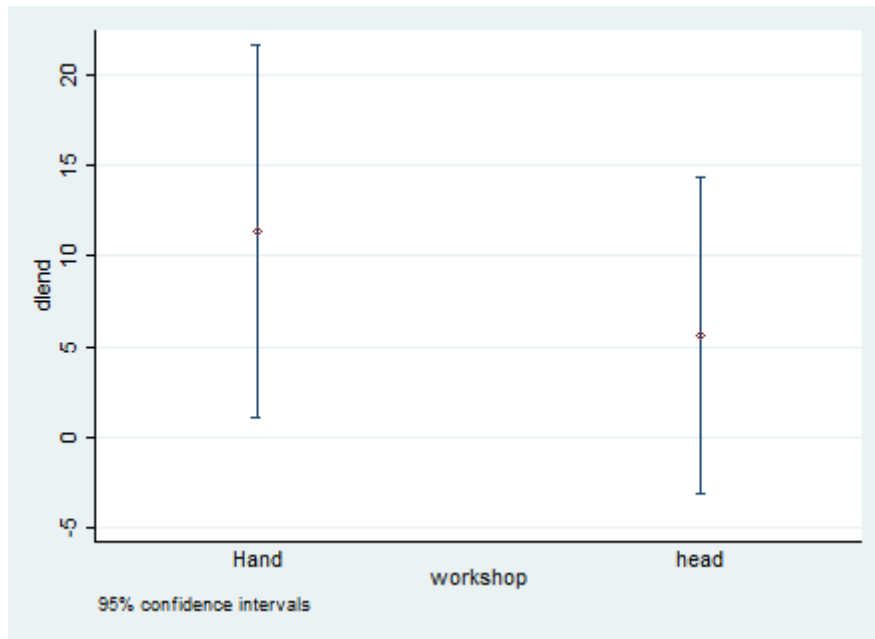
For the question that asks how much money the subject was willing to lend to groupmates, which measures low-risk trust, the 95% confidence intervals of change from before and after the interventions are consistently above 0, across all workshops.

China Borrow (measuring norms of reciprocity)

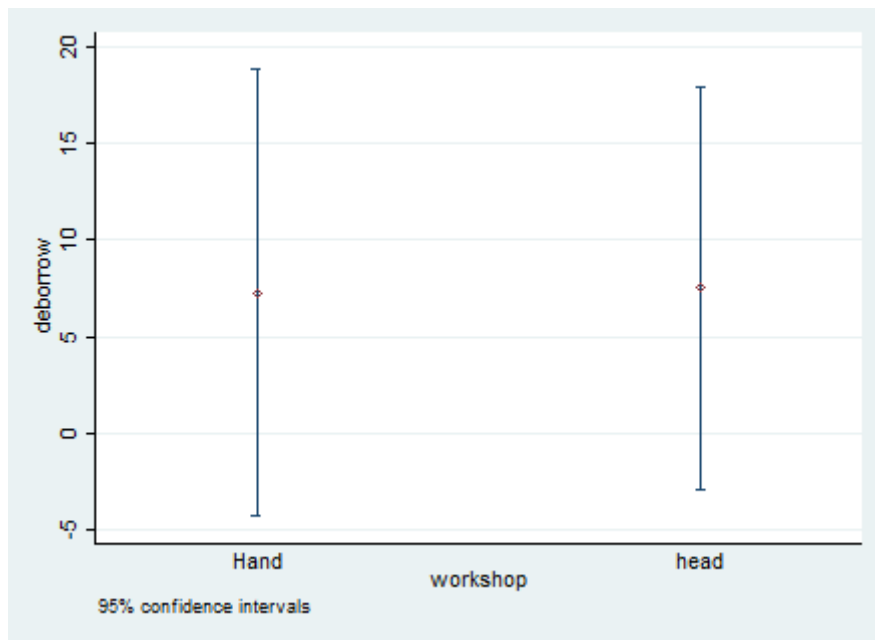


For the question that asks about their expectations of how much their teammates might lend them, which measures norms of reciprocity, the 95% confidence intervals of change (before and after) across the workshops are also consistently above 0. For both questions, the “heart” workshop had the highest mean increase.

U.S. Lend (measuring low-risk trust)



U.S. Borrow (measuring norms of reciprocity)



For the U.S. workshops, only the “hand” workshop significantly increased low-risk trust. The other workshops still had a positive impact both on low-risk trust and norms of reciprocity, but the change was not statistically significant. The U.S. hand workshop also significantly increased the happiness level.

For both China and the U.S., the variations in high-risk trust and civic engagements were not statistically significant. The small sample size may have led to insignificant changes for most of the U.S. workshops.

The overall change of the values could be under-estimated due to the setup of the research design. For example, for the “lending” question, the post-workshop discussions revealed that many participants picked the maximum of “100” to begin with (about 19% of the participants), leaving no room to increase. Many of them reflected that they would have lent a larger amount of money to their teammates after the workshops if there was no maximum. While there are also participants who answered “0” for both pre- and post-treatment surveys (about 5% of the participants), their claims are often “I am not going to lend money to others regardless.” Thus, the actual impact of those interventions could be even bigger than the above conservative estimations.

During the debriefing, the mechanisms of increasing happiness, trust, and norms of reciprocity were also clearly spelled out by the subjects. For the “heart” workshops, students felt shared interests, grievances, and purposes after telling and listening to others’ stories. They felt connected and even touched hearing how others were facing similar challenges and making hard choices to overcome challenges, too. For the “head” workshop, the discussion was centered around the issue of “first-generation college students.” The subjects mentioned that they realized people who face numerous challenges before and after entering colleges and discussing and analyzing these challenges while attempting to solve problems together made them feel a sense of a community. For the “hand” workshop, there was a great amount of team effort. When collaborating with teammates to achieve shared goals together, the subjects learned to specialize and rely on each other to increase efficiency. Such experiences also brought the subjects closer.

For those individuals that did not change their post-treatment assessments in comparison with their pre-treatment assessments, they tend to recall increased salience of differences within the group. In those cases, there were group members whose values they disagree with; there were group members who were not able to empathize with others and was stubbornly opinionated; there were group members who did not want to contribute and want to free ride. It is apparent that the workshops were effective in creating new social capitals within newly created networks in general, but the specific magnitude and even direction of the effects also depend on the characters of the individuals within each group.

Conclusion

This study utilizes quasi-experiments to test different interventions’ effectiveness in empowering teenage students to increase civic engagement and accumulate social capital within networks that they are embedded in. Utilizing “leadership in the form of public narratives,” “world trade simulations,” and “student facilitated public discussions,” – three pedagogical interventions the author has practiced for many years in multiple cities in China and the U.S. – this study found these three workshops could increase the level of

trust and norms of reciprocity just within a few hours. The “heart” workshop, which focuses on cultivating subjects’ motivational capacities and explore shared purposes, appears to be the most effective, while the analytical (head) and the practical (hand) workshops also significantly increased the levels of low-risk trust and norms of reciprocity.

The mixed results for high-risk trust and willingness to participate in civic discussions could be due to multiple factors. First, high-risk trust and civic engagement may take a longer period to cultivate. Given the scope of this research, the potential long term impact may not be captured. Second, the sample size may be too small to infer statistically significant changes. However, the positive mean increase of civic engagement both in China and the U.S. indicates that future research could potentially explore longer time ranges’ effects with larger sample sizes.

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