

Original Paper

Investigating the Social Capital Variability of Highschool Students in Taiwan, Focusing on Gender Differences

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Abstract

This research investigated the variation in Social Capital (SC) among high school students in Taiwan, focusing on gender disparities. The study involved 853 students from seven randomly selected high schools in central Taiwan, with 509 girls and 344 boys participating. The researcher utilized a 24-item questionnaire developed by Khodadady and Zabihi (2011) after making some adjustments. The survey covered five overarching factors of SC: 1) "Parental & Family Consultation/Support", 2) "Family-School Interaction", 3) "School & Social Activities", 4) "Peer Interaction", and 5) "Family Bonds". Using a Pearson Chi-square test ($\alpha \leq 0.05$), each of the 24 survey items was analyzed. The findings indicated that the viewpoints of Taiwanese high school boys and girls regarding their social capital status were highly similar, with some items being identical. The only statistically significant difference observed were items 1, 3, 10, 16, and 23. These results implied that, except for Item 1, boys tended to perceive slightly higher SC benefits compared to girls. Additionally, and based on the descriptive rubrics devised by the author, girls displayed slightly higher values than boys in Factor 2, whereas boys exhibited slightly higher values in Factor 1 and Factor 3. Both genders provided nearly equal responses for Factors 4 and 5.

Keywords

factor, gender, rubrics, social capital (SC)

1. Introduction

Studying the variability of "Social Capital" among high school students and its connection to gender differences holds significant value in understanding social, psychological, and educational dynamics. This investigation's importance lies in various aspects. First, social capital encompassing networks and resources from social connections which can improve academic support. Analyzing gender differences

in this respect can highlight disparities in academic achievement between genders. Second, social capital influences peer support, vital for emotional reinforcement and collaborative learning. Disparities in peer support between boys and girls might affect their academics significantly. Third, social capital introduces students to diverse careers via interactions with professionals. Researching gender-linked differences can reveal if all genders have equal access. Fourth, high school social capital shapes future personal and professional lives. Exploring gender-related variations can predict impacts on careers and overall quality of life. And finally, research on probable gender differences in high school social capital adds to the literature and enhances understanding in social capital, gender studies, and education. Hence, contributing to discussions on gender equality. Thus, the present study tries to shed light on the differences of social capital among high school students and the links to gender in the context of Taiwan.

2. Literature Review

2.1 Historical Overview

The concept of social capital, while not explicitly termed as such, can indeed be traced back to ancient texts and ideas. The term “social capital” itself is relatively modern and gained prominence in the late 20th century, especially through the work of scholars like Pierre Bourdieu (1930-2002) and Robert Putnam (born 1941). However, the underlying ideas related to social networks, relationships, and their value have historical roots. For instance, the works of ancient Greek philosophers such as Aristotle and Plato often discussed the importance of community and relationships in shaping a just and harmonious society. Aristotle’s concept of “*philia*” (friendship) and the notion of the “*polis*” (city-state) highlight the significance of social connections and collaboration for the well-being of individuals and the society. Likewise, in ancient Chinese philosophy, particularly within Confucianism, the idea of social harmony and the importance of interpersonal relationships played a central role. Confucius emphasized the role of strong relationships, mutual trust, and respect in creating a stable and harmonious society. During the Middle Ages in Europe, guilds and trade associations served as forms of social capital. These organizations provided a sense of community, shared resources, and support networks for craftsmen and merchants. On a smaller scale in the European villages, communal practices such as shared farming, barn-raising, and mutual assistance in times of need can be seen as forms of social capital, where individuals pooled resources and labor for the collective benefit. Another instance might be traditional indigenous societies around the world which often place a strong emphasis on community, shared responsibilities, and collaboration. These values contribute to the formation of social capital within these societies. Then, perhaps, the culmination of these examples can be seen in many religious and spiritual texts in which the value of social connections is reputedly emphasized. The Bible, for instance, contains numerous passages highlighting the importance of loving thy neighbor, practicing kindness, and helping others. Similar themes are present in other religious texts as well. While these examples do not directly use the term “social capital,” they do reflect the fundamental ideas of interconnectedness, shared resources, trust, and cooperation that underlie the concept. As societies evolved and modernized, these

ideas became more explicit and were formalized as the concept of social capital, gaining attention in social sciences and policy discussions.

2.2 Modern Interpretations of Social Capital

Pierre Bourdieu (1986)'s notion of "Social Capital" is a significant aspect of his broader theory of cultural and social reproduction. He introduced social capital as a type of resource individuals and groups possess within a society's framework. Social capital pertains to the advantages gained from relationships, networks, and social interactions. It includes both formal connections (like memberships in groups) and informal ones (like friendships and family ties). Bourdieu emphasizes that social capital is unevenly distributed, with those having more extensive and influential networks enjoying better access to opportunities and resources. This inequality can perpetuate social disparities as individuals with limited social capital struggle to access the same benefits. Overall, Bourdieu's concept underscores how social relationships shape people's prospects and opportunities within a specific social setting, making it an influential idea in sociology and related fields. Then, a decade later, Michael Woolcock (1998) defines social capital as a multifaceted concept encompassing networks, norms, and trust within communities or societies. He highlights the importance of social relationships and networks in promoting cooperation, information sharing, and mutual assistance among individuals and groups. He identifies two main dimensions of social capital:

- 1) **Structural Dimension:** This refers to the concrete patterns of social networks formed by individuals and groups, including personal connections, family ties, community memberships, and other types of social involvement.
- 2) **Cognitive Dimension:** This pertains to the shared values, norms, and attitudes that emerge within these social networks. These common norms can influence how individuals behave, perceive trustworthiness, and engage in collective endeavors.

Woolcock suggests that social capital can play a vital role in driving economic development. He proposes that it can enhance economic outcomes by facilitating information flow, reducing transaction costs, and promoting more effective collaboration and collective actions. However, he acknowledges the potential for negative effects if social capital becomes exclusive or supports exclusionary practices.

Over time, several scholars have provided definitions and insights into the concept of "Social Capital," a few examples of which are outlined here. For instance, according to Putnam (1993, 2000), social capital refers to the collective resources, networks, and relationships that individuals and groups possess, which can be leveraged for mutual benefit, social interactions, and achieving common goals. Then, Coleman (1988) states that social capital includes the trust, norms, and values that exist within a community or society, promoting cooperation, collaboration, and the exchange of information and resources. Based on Bourdieu (1986)'s assertion, social capital can be understood as the connections and relationships among individuals and groups that enable the flow of information, resources, and support, enhancing individual and collective well-being. Bourdieu (1986) postulates that social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of institutionalized relationships

of mutual acquaintance and recognition. Lin (1999), on the other hand, believes that social capital is the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. He later on (2001) argues that social capital refers to the social ties, networks, and affiliations that provide individuals and communities with access to social support, opportunities, and shared resources. Woolcock (1998) believes that social capital comprises the connections and social relationships that facilitate cooperation, coordination, and collaboration among individuals and groups for achieving common goals. Furthermore, Nahapiet, and Ghoshal (1998) link social capital to the resources embedded in social networks, including trust, norms, and information exchange, which facilitate cooperation and collaboration within a community. Likewise, Kawachi and Berkman (2000) state that social capital encompasses the social connections and relationships that enable individuals and groups to access opportunities, resources, and social support, leading to increased resilience and well-being. Then, Portes (1998) defines social capital as the features of social organization, such as trust, norms, and networks, that facilitate coordinated actions for mutual benefit. According to Fukuyama (1995), social capital encompasses the social ties, shared values, and norms that contribute to social cohesion and cooperation, leading to collective benefits. And finally, Coleman (1988) explains that social capital is defined by its function. It is not a single entity, but a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure. And finally, Baron and Field (2010) assert that social capital is a form of economic and cultural capital in which social networks are central, transactions are marked by reciprocity, trust, and cooperation, and market agents produce goods and services not mainly for themselves, but for a common good.

It is evident that the definitions mentioned earlier exhibit common themes and considerable overlap in meanings. However, it is possible to categorize these overlapping themes into the following three groups: Theme 1: Networks and Relationships (Bourdieu, 1986; Coleman, 1988; Lin, 1999 & 2001; Putnam, 1993 & 2000)

Theme 2: Trust, Norms, and Values (Coleman, 1988; Fukuyama, 1995; Kawachi & Berkman, 2000; Nahapiet & Ghoshal, 1998)

Theme 3: Cooperation and Collaboration (Baron & Field, 2010; Portes, 1998; Woolcock, 1998)

2.3 Related Studies

To the best knowledge of the author, there has not been a survey study about gender differences or interpretations about social capital among high school students in Taiwan. Although this grants novelty to the current study, it will also make relating relevant literature a laborious task. Nonetheless, some pertinent investigations will be briefly introduced in the following lines.

Studies have demonstrated that a college student's academic success in terms of their readiness and perseverance in higher education is influenced by the social capital they adhere to from their family upbringing (Anderson, 2005; Horvat et al., 2003; Ream, 2005; Tierney, 2000). Meanwhile, Parks-Yancy et al. (2006)'s study found that males had greater access to social capital resources than females. The

author of the present study believes that it is quite noteworthy to think about the high school students as soon-to-be-adults. Thus, it is easier to consider the fact that because of the distinct ways in which men and women typically engage in the workforce, the occupational segregation of genders, imbalanced sharing of household chores and caregiving duties, and being excluded from influential networks predominantly comprised of men, women often construct social circles primarily consisting of family and close friends. As a result, their networks encompass fewer connections to high-status professions, which are crucial for fostering career achievements and progression, as opposed to the networks that men tend to build (McDonald, 2011; McDonald & Mair, 2010; Parks-Yancy et al., 2006).

As will be discussed in the Methodology section, various forms of parent-student relations constitute a crucial range of factors/constructs of the student's social capital. In this regard, some researchers who focus on quantitative analysis, such as Horn (1998) and Perna (2000), give greater importance to how often parents and children engage in conversations regarding school-related activities, considering it as a form of 'parental involvement'. Some other research suggested that parents exhibited different treatment towards their sons and daughters. Mothers exhibited a higher level of sensitivity towards their children, particularly when it came to their daughters, in comparison to fathers. This was evident in their more frequent attendance in parent-teacher associations (PTAs) and a greater inclination towards asserting their influence in social interactions with their daughters, a trend not as prominently observed in fathers (Mc Neal, 1999; Sun, 1999; Teachman, Paasch, & Carver, 1996). Geven and van de Werfhorst (2019) used data concerning teenagers in Germany and the Netherlands. They discovered that there were positive links between intergenerational networks and academic performance when examining variations among students.

Then as far as students' gender is concerned, I believe we might need more studies to be conducted. Clopton (2012)'s study examined the role of gender in outcomes of social capital for student athletes. He collected data from 570 student athletes across 23 sports institutions. The findings indicated a significant interaction between gender of the student athletes and sport type (team-based or individual). Specifically, female student athletes in team sports demonstrated greater social capital than those in individual sports, whereas male student athletes reported higher social capital in individual-sport settings than in team sports. In another investigation, Rodriguez Mene's and Donato (2015)' study on the cross-sectional analyses of the 2006 Program for International Student Assessment survey data revealed positive links between students' social capital and cognitive performance in science regardless of gender.

3. Methods

3.1 Participants

A total of 853 students, consisting of 509 girls and 344 boys, from seven randomly selected high schools in central Taiwan were involved in this research. The final number of participants considered for analysis was based on those who completed the questionnaire appropriately, while incomplete or improperly filled-out cases were excluded from further evaluation.

3.2 Research Instrument

In the present study, the author adopted a 24-item questionnaire from Khodadady and Zabihi (2011)'s SCCQ questionnaire. Originally, their questionnaire was based on the most frequently cited social capital indicators by Dika and Singh (2002) and Laureau and Weininger (2003). The 2011 SCCQ had been previously validated and shown to be reliable. Nonetheless, the modified version in the present study was being examined and approved for its content validity by four senior academic experts. Moreover, it was administered to 35 high school students (19 girls, and 16 boys) in a research population representative school during the pilot study. The statistical analysis of the gathered data in the pilot revealed a Cronbach's alpha value of .717 which is considered acceptable for most cases. As already mentioned, for the current research, the author made certain modifications to better suit the Taiwanese context and update it to recent times. For example, the term "mosque" was changed to "temple" in item 3, and some past tenses were converted to the present tense in items 6, 7, 10, 14, 16, 17, 18, and 21. Additionally, the original 6-scale Likert was replaced with a 4-scale one to reduce confusion among students, as the subtle differences in adverbs of frequency used in the Likert scale might have caused ambiguity and bewilderment. Finally, in item 11, "using language" was modified to "using social network." Since the ongoing research falls within the field of humanities studies, it could lead one to categorize the statements employed in the questionnaire with subjective perspectives and diverse classifications. However, the author has clustered the questionnaire items into the following overarching thematic categories or factors. The first factor is *Parental & Family Consultation/ Support* (items 4, 6, 12, 13, 15, 18, 19, 20, 21); the second factor is *Family-School Interaction* (items 1, 7, 10, 14); the third group is *School & Social Activities* (items 2, 3, 16, 17); the fourth group is *Peer Interaction* (items 8, 9, 11, 22); and finally, the fifth group is *Family Bonds* (items 5, 23, 24).

Subsequently, the English questionnaire (Appendix A) was translated into Chinese Mandarin (Appendix B) by a local English teacher. For more convenience, only the Chinese version of the questionnaire was administered in the schools.

3.3 Research Question and Hypothesis

Each specific item in the research questionnaire has been tested separately in this study. Therefore, the following generic research question and hypothesis was used for each of the 24 items of the questionnaire:

(n) - Is there any significant difference between female and male high school students on this particular Social Capital construct?

H_0 (n) -There is no significant difference between female and male high school students on this particular Social Capital construct?

4. Results

4.1 Testing the Hypothesis

After applying a Pearson Chi-square test for each of the 24 items of the questionnaire, the following categorical variables were cross-examined:

- Groups (Girls/Boys);
- Responses to questionnaire items (Always/Often/Rarely/Never).

Table 1. summarizes the Results ($\alpha \leq .05$).

Table 1. Summary of the Chi-square Test Results for Each Item of the Questionnaire

Item	Pearson Chi-square value	Asymp. Sig. (2-sided)	Significant or Non-significant
1	52.677	.000	Significant
2	1.595	.660	Non-sig.
3	14.120	.003	Significant
4	1.103	.776	Non-sig.
5	7.646	.054	Non-sig.
6	.636	.888	Non-sig.
7	3.409	.333	Non-sig.
8	3.359	.340	Non-sig.
9	3.433	.329	Non-sig.
10	8.235	.041	Significant
11	7.554	.056	Non-sig.
12	5.284	.152	Non-sig.
13	1.644	.650	Non-sig.
14	3.868	.276	Non-sig.
15	.339	.952	Non-sig.
16	11.504	.009	Significant
17	6.417	.093	Non-sig.
18	.883	.829	Non-sig.
19	5.315	.150	Non-sig.
20	.534	.911	Non-sig.
21	7.697	.053	Non-sig.
22	1.203	.752	Non-sig.
23	8.208	.042	Significant
24	.999	.801	Non-sig.

As evident from Table 1, the respective significance level for each chi-square test is provided alongside its corresponding Pearson chi-square value. For a result to be considered significant, each Sig. value must be equal to or less than .05. Consequently, the findings demonstrate that out of the 24 questionnaire items, only items 1, 3, 10, 16, and 23 have elicited significantly different responses from both male and female

students. This suggests that the null hypotheses, which assert no significant difference between male and female high school students concerning these specific Social Capital constructs, can be rejected. In simpler terms, boys and girls have expressed significantly different viewpoints on these five social capital constructs. On the contrary, for the remaining 19 items on the questionnaire, the differences between boys and girls were not significant, indicating that they share very similar attitudes and attributes related to their social capital traits. Hence, for these other 19 items (excluding items 1, 3, 10, 16, and 23), the null hypothesis cannot be rejected.

4.2 Effect Size Statistic

Table 2 illustrates the Cramer's V (Effect Size Statistic) for the significantly-responded items in this study. According to Pallant (2016, p. 241), the followings are the guidelines for effect size statistics: small=.06, medium=.17, large=.29.

Table 2. Cramer's V values for the Significant Questionnaire Items

Item	Cramer's V value	Inferred Effect Size
1	.249	large
3	.129	medium
10	.098	small to medium
16	.116	medium
23	.098	small to medium

4.3 Quantifying the Data

From a statistical standpoint, SPSS cannot indicate the direction of differences since the data being analyzed is nominal/categorical. Nevertheless, the author has measured all differences, albeit mostly insignificant or negligible. It is worth noting the ongoing debate concerning the suitability of using parametric analysis with Likert scale data. Some scholars, like Jamieson (2004), emphasize that the intervals between Likert scales are not uniform, rendering any numerical values assigned to them invalid. Conversely, proponents such as Lubke and Muthen (2004) support the use of parametric tests, arguing that when applied equally across groups, the results can provide some insight into potential variations or similarities, despite the unequal mathematical intervals of Likert scales. The present study aligns more with the viewpoint of the latter group.

The rubric used in the present study relates mathematical values to the questionnaire choices as the following: Never =1; Rarely =2; Often =3; and Always =4.

Table 3 presents the number of responses for each item in the questionnaire, while Table 4 displays the total and average of participants' responses to each item and the overall factor, which have been quantified using the mentioned rubric.

Table 3. Students' Total Responses to Each Questionnaire Item

NEVER	RARELY	OFTEN	ALWAYS
Girls , Boys	Girls , Boys	Girls , Boys	Girls , Boys
1- My mother used to get involved in my primary schooling.			
65 87	132 114	101 76	211 67
2- I like to get involved in activities designed for young people.			
71 41	150 94	231 167	57 42
3- I get involved in religious activities in temples.			
133 58	158 101	160 143	58 42
4- My parents get involved in my daily activities.			
20 16	162 111	186 115	141 102
5- I see my grandparents weekly.			
104 83	116 83	174 126	115 52
6- My parents help me with my homework regularly.			
60 42	163 107	221 145	65 50
7- My mom attends school meetings regularly.			
167 95	124 91	103 82	115 76
8- I feel I have a strong help network for my activities.			
70 46	170 135	173 108	96 55
9- I see my friends weekly.			
35 31	172 98	202 146	100 69
10- I have had excellent schools with high quality.			
107 50	152 122	107 84	143 88
11- I am highly proficient in using social networks.			
40 33	194 102	204 163	71 46
12- At home, my parents keep track of my progress.			
210 118	154 117	69 59	76 50
13- My parents know where I am, and what I do.			
58 36	186 114	208 150	57 44
14- My parents have a regular connection with my school.			
253 152	145 100	75 66	36 26
15- My parents know parents of my friends.			
47 31	162 115	222 144	78 54
16- I participate in school activities regularly.			
186 88	128 97	160 131	35 28
17- I participate in extracurricular activities.			

81	77	133	86	130	73	165	108
18- My parents monitor my homework regularly.							
33	23	149	105	186	115	141	101
19 I talk about job/education with my family.							
237	136	149	107	69	62	54	39
20- I talk about job/education with other adults.							
46	32	191	134	227	145	45	33
21- My parents have a say in school policy.							
197	104	136	112	120	93	56	35
22- I feel I have strong ties with my peers.							
20	17	162	114	186	115	141	98
23- My parents have strong ties with each other.							
149	71	189	148	130	94	41	31
24- We have an intimate home environment.							
71	46	87	68	165	109	186	121

Table 4. Results for each Factor after Quantifying the Replies to Each Questionnaire Item

Factor 1	Sum		Average		Results
	Girls	Boys	Girls	Boys	
I.4	1466	991	2.88	2.88	B=G (0)
I.6	1309	891	2.57	2.59	B>G (.02)
I.12	1029	729	2.02	2.12	B>G (.1)
I.13	1282	890	2.52	2.59	B>G (.07)
I.15	1349	909	2.65	2.64	G>B (.01)
I.18	1453	982	2.86	2.85	G>B (.01)
I.19	958	692	1.88	2.01	B>G (.13)
I.20	1289	867	2.53	2.52	G>B (.01)
I.21	1053	747	2.07	2.17	B>G (.1)
Factor 1			Ave.	2.49	G<B
				2.44	
Factor 2					
I.1	1476	811	2.90	2.36	G>B (.54)
I.7	1184	827	2.33	2.40	B>G (.07)
I.10	1304	898	2.56	2.61	B>G (.05)
I.14	912	654	1.79	1.90	B>G (.11)
Factor 2			Ave.	2.3	G>B

Factor 3					
I.2	1292	898	2.54	2.61	B>G (.07)
I.3	1161	857	2.28	2.49	B>G (.21)
I.16	1062	787	2.08	2.29	B>G (.21)
I.17	1397	900	2.74	2.62	G>B (.12)
Factor 3 Ave.			2.5	G<B	
Factor 4					
I.8	1313	860	2.58	2.50	G>B (.08)
I.9	1385	941	2.72	2.74	B>G (.02)
I.11	1324	910	2.60	2.65	B>G (.05)
I.22	1466	982	2.88	2.85	G>B (.03)
Factor 4 Ave.			2.7	G=B	
Factor 5					
I.5	1318	835	2.59	2.43	G>B (.16)
I.23	1081	773	2.12	2.25	B>G (.13)
I.24	1484	993	2.92	2.89	G>B (.03)
Factor 5 Ave.			2.5	G=B	

Since only items 1, 3, 10, 16, and 23 (belonging to factors 2, 3, 2, 3, and 5 respectively) yielded statistically significant results, then we can assume that any other interpretations of the gathered data fall under descriptive statistics. Thus, we can see that Item 1 stands out because it is the only item that shows girls' significantly larger value response. That is, high school girls seem to have more tendency to state that "My mother used to get involved in my primary schooling". This belongs to Factor 2: *Family-School Interaction*. On the other hand, high school boys showed to be more inclined to state that "I get involved in religious activities in temples." (Item 3, Factor 3); "I have had excellent schools with high quality." (Item 10, Factor 2); "I participate in school activities regularly." (Item 16, factor 3) and finally, "My parents have strong ties with each other." (Item 23, Factor 5).

Consequently, what we can perceive from the descriptive data in Table 4 is that girls have a slightly larger values than boys concerning items under Factor 2 (*Family-School Interaction*); whereas, boys have gained somewhat larger values regarding Factor 1 (*Parental & Family Consultation/ Support*), and Factor 3 (*School & Social Activities*). Finally, both genders have demonstrated almost equal responses concerning Factor 4 (*Peer Interaction*), and Factor 5 (*Family Bonds*).

5. Discussion

The current paper revealed that Taiwanese high school boys and girls have very few significant differences regarding their perception about their own social capital. Based on Table 1, the major differences observed in the data were items 1, 3, 10, 16, and 23. Based on the responses to Item 1, it seems that Taiwanese high school girls, compared with the boys, think that their mothers got involved in their primary schooling more. This finding agrees with the similar claims by Mc Neal (1999), Sun (1999), and Teachman, Paasch, & Carver (1996) asserting mothers attend parent-teacher associations more frequently, and that they displayed greater sensitivity towards their children, especially their daughters, when contrasted with fathers. Then, based on the overall results of the descriptive data (Table 4), high school boys have the tendency to believe they have more access to social capital resources. This is in tandem with Parks-Yancy et al. (2006)'s findings. Furthermore, as for the fourth and fifth factors; that is, *Peer Interaction*, and *Family Bonds*, both female and male students provided responses with higher numbers (Table 4) which confirms the arguments of scholars such as Horn (1998) and Perna (2000) in that the high frequency of parents and children engage in conversations regarding school-related activities, can be considered as a form of 'parental involvement'.

Nonetheless, the current study did not plan to investigate the possible vivid correlations between SC and students' academic achievements. Thus, the findings of the present study cannot either agree or disagree with the results in studies such as Anderson (2005), Horvat et al. (2003), Ream (2005), and Tierney (2000).

6. Conclusion

This study examined Social Capital (SC) variations among high school students in Taiwan, focusing on gender differences. It assessed five key SC factors and found that perceptions of SC were generally similar between boys and girls, with some exceptions. Boys tended to see more SC benefits, except in Item 1. Girls scored higher in Factor 2, while boys scored higher in Factors 1 and 3, and both genders were similar in Factors 4 and 5. Given SC's potential impact on peer support and academic performance, the results have implications for Taiwanese education policymakers. Moreover, SC can expose students to career opportunities, making gender-related investigations important for ensuring equal access and predicting career and quality of life effects. Overall, this study aimed to enhance our understanding of high school SC distinctions and their connection to gender in Taiwan.

7. Recommendations

Here are some recommendations for potential future research:

- Conducting a comprehensive quantitative study to identify and measure specific factors that contribute to SC among high school students. This could include variables like family background, school environment, extracurricular activities, and online social interactions.

- Conducting a longitudinal study to observe how SC develops and changes over time among high school students.
- Exploring the role of cultural factors in shaping SC variability.
- Investigating how participation in extracurricular activities (sports, arts, clubs, etc.) influences SC formation among high school or university students, with a focus on potential differences between genders.
- Examining the impact of online social interactions on SC development among high school or university students with reference to gender differences.
- Exploring the role of teacher-student relationships in shaping SC among high school students. Investigate whether these relationships vary between genders and how they influence students' social networks.

8. Limitations

When studying social capital among high school female and male students in Taiwan, there are several limitations that could impact the scope, validity, and generalizability of the findings. For instance, social capital is deeply influenced by cultural norms and values. There may be challenges in accurately interpreting and comparing gender differences in social capital due to cultural variations in the perception of social relationships. Also, the questionnaire used might not fully capture the cultural and contextual aspects of social capital in the Taiwanese context. Some elements may be lost in translation or not adequately accounted for, affecting the validity of the results. It is also note-worthy to consider that high school students might provide responses that they believe are socially acceptable or expected, rather than their true perceptions. This bias can lead to inaccurate findings, especially when exploring sensitive topics like social relationships and gender roles. Additionally, gender roles and expectations are socially constructed and might influence how students perceive and report their social capital. Cultural norms may shape the way boys and girls interact with peers, teachers, and family members, impacting the study's results.

References

- Anderson, G. M. (2005). In the name of diversity: Education and the commoditization and consumption of race in the United States. *The Urban Review*, 37(5), 399-423. <https://doi.org/10.1007/s11256-005-0017-z>
- Baron, S., & Field, J. (2010). *Social capital: Critical perspectives*. Oxford University Press.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). Greenwood Press.
- Clopton, A. W. (2012). Social Capital, Gender, and the Student Athlete. *Group Dynamics: Theory, Research, and Practice*, 16(4), 272-288. <https://doi.org/10.1037/a0028376>
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*,

- 94(Supplement), S95-S120. <https://doi.org/10.1086/228943>
- Dika, S. L., & Singh, K. (2002). Applications of Social Capital in Educational Literature: A Critical Synthesis. *Review of Educational Research*, 72(1), 31-60. <https://doi.org/10.3102/00346543072001031>
- Fukuyama, F. (1995). Social capital and the global economy. *Foreign Affairs*, 74(5), 89-103. <https://doi.org/10.2307/20047302>
- Geven, S., & Van de Werfhorst, H. G. (2019). The role of intergenerational networks in students' school performance in two differentiated educational systems: A comparison of between -and within-individual estimates. *Sociology of Education*, 20(10), 1-25. <https://doi.org/10.1177/0038040719882309>
- Horn, L. J. (1998). Confronting the odds: Students at risk and the pipeline to higher education. (NCES Report No. 98-094). Washington, DC: U.S. Department of Education.
- Horvat, E. M., Weininger, E. B., & Lareau, A. (2003). From social ties to social capital: Class differences in the relations between schools and parent networks. *American Educational Research Association*, 40(2), 319-351. <https://doi.org/10.3102/00028312040002319>
- Jamieson, S. (2005). Likert scales: How to (ab) use them. *Medical Education*, 38(12), 11-18. <https://doi.org/10.1111/j.1365-2929.2004.02012.x>
- Kawachi, I., & Berkman, L. F. (2000). Social cohesion, social capital, and health. In L. F. Berkman & I. Kawachi (Eds.), *Social epidemiology* (pp. 174-190). Oxford University Press. <https://doi.org/10.1093/oso/9780195083316.003.0008>
- Khodadady, E., & Zabihi, R. (2011). Social and cultural capital: Underlying factors and their relationship with the school achievement of Iranian university students. *International Education Studies*, 4(2), 63-71. <https://doi.org/10.5539/ies.v4n2p63>
- Lareau, A., & Weininger, E. B. (2003). Cultural capital in educational research: A critical assessment. *Theory and Society*, 32, 567-606. <https://doi.org/10.1023/B:RYSO.0000004951.04408.b0>
- Lin, N. (1999). Building a network theory of social capital. *Connections*, 22(1), 28-51.
- Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511815447>
- Lubke, G. H., & Muthen, B. O. (2004). Applying multigroup confirmatory factor models for continuous outcomes to Likert Scale data complicates meaningful group comparisons. *Structural Equation Modeling: A Multidisciplinary Journal*, 11(4), 514-534. https://doi.org/10.1207/s15328007sem1104_2
- McDonald, S. (2011). What's in the 'old boys' network? Accessing social capital in gendered and racialized networks. *Social Networks*, 33(4), 317-330. <https://doi.org/10.1016/j.socnet.2011.10.002>
- McDonald, S., & Mair, C. A. (2010). Social capital across the life course: Age and gendered patterns of network resources. *Sociological Forum*, 25(2), 335-359. <https://doi.org/10.1111/j.1573-7861.2010.01179.x>

- McNeal, R. B., Jr. (1999). Parental involvement as social capital: Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces*, 78(1), 117-144. <https://doi.org/10.2307/3005792>
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266. <https://doi.org/10.2307/259373>
- Pallant, J. (2016). *SPSS survival manual (6th ed): A step by step guide to data analysis using IBM SPSS*. McGraw- Hill Education.
- Parks-Yancy, R., DiTomaso, N., & Post, C. (2006). The social capital resources of gender and class groups. *Sociological Spectrum*, 26(1), 85-113. <http://dx.doi.org/10.1080/02732170500269651>
- Parks-Yancy, R., DiTomaso, N., & Post, C. (2006). The social capital resources of gender and class groups, *Sociological Spectrum*, 26(1), 85-113. <https://doi.org/10.1080/02732170500269651>
- Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *The Journal of Higher Education*, 71(2), 117-141. <https://doi.org/10.1080/00221546.2000.11778831>
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24(1), 1-24. <https://doi.org/10.1146/annurev.soc.24.1.1>
- Putnam, R. D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton University Press. <https://doi.org/10.1515/9781400820740>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster. <https://doi.org/10.1145/358916.361990>
- Ream, R. K. (2005). Toward understanding how social capital mediates the impact of mobility on Mexican American achievement. *Social Forces*, 84(1), 201-224. <https://doi.org/10.1353/sof.2005.0121>
- Rodriguez Mene's, J., & Donato, L. (2015). Social capital, social cohesion, and cognitive attainment. In *The Handbook of Research Methods and Applications on Social Capital* (pp. pp. 324-343, edited by Y. Li. Cheltenham). England: Edward Elgar Publishing. <https://doi.org/10.4337/9780857935854.00022>
- Sun, Y. (1999). The contextual effects of community social capital on academic performance. *Social Science Research*, 28(4), 403-426. <https://doi.org/10.1006/ssre.1999.0661>
- Teachman, J., Paasch, K., & Carver, K. (1996). Social capital and dropping out of school early. *Journal of Marriage and the Family*, 58(3), 773-783. https://doi.org/10.2307/353735_
- Tierney, W. G., & Jun, A. (2001). A university helps prepare low-income youths for college: Tracking school success. *The Journal of Higher Education*, 72(2), 205-225. <https://doi.org/10.1080/00221546.2001.11778878>
- Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), 151-208. <https://doi.org/10.1023/A:1006884930135>

Appendix A: Social Capital Assessment Questionnaire (English Version)

Gender: ☐ Boy ☐ Girl

Social Capital Assessment Questionnaire

The purpose of this questionnaire is to let us know about your social capital. Your answers are very valuable to us. Please answer honestly. Thank you very much for your cooperation.

		always	often	rarely	never
1	My mother used to get involved in my primary schooling.				
2	I like to get involved in activities designed for young people.				
3	I get involved in religious activities in temples.				
4	My parents get involved in my daily activities.				
5	I see my grandparents weekly.				
6	My parents help me with my homework regularly.				
7	My mom attends school meetings regularly.				
8	I feel I have a strong help network for my activities.				
9	I see my friends weekly.				
10	I have had excellent schools with high quality.				
11	I am highly proficient in using social networks.				
12	At home, my parents keep track of my progress.				
13	My parents know where I am, and what I do.				
14	My parents have a regular connection with my school.				

15	My parents know parents of my friends.				
16	I participate in school activities regularly.				
17	I participate in extracurricular activities.				
18	My parents monitor my homework regularly.				
19	I talk about job/education with my family.				
20	I talk about job/education with other adults.				
21	My parents have a say in school policy.				
22	I feel I have strong ties with my peers.				
23	My parents have strong ties with each other.				
24	We have an intimate home environment.				

End of Questionnaire

Appendix B: Social Capital Assessment Questionnaire (Chinese Version)

性別: ☐ 男 ☐ 女

社會資本評量問卷

此問卷目的是要讓我們了解您的學社會資本。您的作答是我們寶貴的資訊，敬請誠實 作答。

非常感謝您的配合。

1- 我的母親曾經參與我的小學教育。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

2- 我喜歡參與為年輕人設計的活動。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

3- 我參與寺廟的宗教活動。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

4- 我的父母參與我的日常活動。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

5- 我每週都會見到我的祖父母。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

6- 我的父母定期幫助我做作業。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

7- 我媽媽定期參加學校會議。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

8- 我覺得我的活動有一個強大的幫助網絡。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

9- 我每週都會見到我的朋友。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

10- 我擁有高質量的優秀學校。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

11- 我非常熟練地使用社交網絡。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

12- 在家裡，我的父母會記錄我的進步。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

13- 我的父母知道我在哪裡，我在做什麼。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

14- 我的父母與我的學校有定期聯繫。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

15- 我的父母認識我朋友的父母。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

16- 我定期參加學校活動。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

17- 我參加課外活動。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

18- 我的父母定期監督我的作業。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

19- 我和家人談論工作/教育。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

20- 我與其他成年人談論工作/教育。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

21- 我的父母對學校政策有發言權。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

22- 我覺得我和我的同齡人有很強的聯繫。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

23- 我的父母彼此之間有著密切的聯繫。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

24- 我們有一個溫馨的家庭環境。

☐ 總是如此 ☐ 經常如此 ☐ 很少如此 ☐ 從不如此

作答結束