How are things?: Raising achievement and motivation through conversation in the Chinese classroom

Laura Bailey St. Mary's College of Maryland

Abstract: Many teachers struggle with eliciting and maintaining motivation in their students. Previous research has found that teacher-student relationship quality can greatly impact many student outcomes, including motivation and academic success. In this study I investigated the utility of a specific classroom management strategy called "How Are Things" meetings in raising teacher-student relationship quality, motivation, and academic achievement. I recruited 25 students to participate in these meetings over a three week period. Surveys evaluating the students' perceived TSRQ and motivation were administered before and after the intervention period. Routine vocabulary quiz grades were used as a measure of academic achievement. Results showed that the students' perceived TSRQ and motivation had a significantly significant increase over the intervention period, though there was no effect on quiz grades. The usefulness of HAT meetings as a way to raise TSRQ and motivation and implications for future research are discussed.

Introduction and Justification

Lack of motivation in students is an issue for many teachers, and the students who require the most redirection are often also the ones who are least connected to the rest of the class and the teacher. One way to improve student motivation may be for educators to form stronger bonds with the students they teach. Previous research has documented that a healthy teacher-student relationship quality (TSRQ) is associated with greater motivation, among other benefits such as better attendance, lower rates of suspension and dropout, and fewer instances of disruptive behavior (Deci & Ryan, 2016; Hughes, 2011; Longobardi et al., 2019). In turn, higher levels of student motivation are associated with positive academic outcomes in terms of grades, conceptual understanding, as well as the general psychological well-being of students (Niemiec & Ryan, 2009; Ryan & Deci, 2020; Thornberg et al., 2020).

Supporting and maintaining student motivation may be particularly difficult in the context of a Chinese language classroom. In any language study class, it is easy for a student to be overwhelmed by the amount of linguistic input they do not understand, causing them to disengage. Chinese is known to be especially frustrating due to its distance from English and lack of consistent symbol-phonetic correlation (Glisan & Donato, 2021). Perhaps because of this, in recent years Chinese language programs have been disappearing across

the country as more and more students are dropping their studies (Modern Language Association, 2018).

Though there have been many studies examining the link between TSRQ and academic outcomes in various subject areas, the research is limited in the case of world language classrooms, especially Chinese. In this study, I implemented an intervention meant to raise TSRQ between myself and my high school Chinese language students. I attempted to connect with students through "How Are Things?" (HAT) meetings, which consist of casual conversations during planned but informal lunchtime meet-ups of a few students at a time. The purpose of this study was to investigate to what extent the implementation of HAT meetings affects students' perceived TSRQ, motivation, and academic achievement. The implications of my findings would be of special interest to world language teachers, as well as teachers or mentors of any kind who are looking for a way to boost motivation with their pupils.

Literature Review

Theoretical Framework: Self-Determination Theory

According to Deci and Ryan's (2000) self-determination theory, a person's integrity, well-being, and psychological growth is dependent on the fulfillment of three basic needs: autonomy, competence, and relatedness. Autonomy refers to a sense of having control over one's actions and being the originator of one's own decisions. Competence is the sense that one is capable of completing a task well. Relatedness is the desire to feel connected to others and to care and be cared for. In addition to being prerequisite for general healthy development, the fulfillment of these three needs is also necessary for the expression of people's natural inclination for exploration, experimentation, and creativity (Deci & Ryan, 2000; Ryan & Deci, 2020). Deci and Ryan (2000) posit that, though humans naturally want to pursue things they are interested in or perceive value in, circumstances that fail to support the needs for autonomy, competence, and relatedness suppress this internal motivation. By the same logic, circumstances that support those needs give rise to greater feelings of motivation.

Relatedness as Teacher-Student Relationship Quality

In educational settings, relatedness is thought to be a strong predictor of student motivation, particularly in terms of how close and cared for by their teachers students feel (Deci & Ryan, 2016). The level to which students experience relatedness with their teachers can also be understood as their teacher-student relationship quality (TSRQ). Because TSRQ is a predictor for higher levels of motivation, it can also influence students' academic outcomes (Deci & Ryan, 2016, 2012; Niemiec & Ryan, 2009).

Academic Outcomes

Researchers have consistently found that higher TSRQ is associated with higher levels of student engagement and academic achievement (Fowler et al., 2008; Quin, 2016; Wentzel, 1997). In one study, Gehlbach et al. (2016) found that students' final quarter grades for specific classes increased by an average of four percentage points after an intervention designed to raise their relationship quality with their teacher. Perceived caring from teachers also protects against disengagement by fostering students' belief in their

own ability, an effect that increases with each positive relationship a student has with a teacher (Fowler et al., 2008; Hughes et al., 2012; Martin & Collie, 2018).

Students who report higher TSRQ also report greater feelings of school belonging, have better attendance, and have lower rates of suspension and dropout (Longobardi et al., 2019; Noble et al., 2021; Vargas-Madriz & Konishi, 2021). This may be because students who have strong positive relationships with their teachers display fewer instances of the types of disruptive behaviors that may lead to avoidance of or removal from school (Hughes, 2011; Longobardi et al., 2019; Quin, 2016). In studies by both Fowler et al. (2008) and Sethi and Scales (2020) students reported that one of the reasons they regulated their behavior was to impress their teachers or, inversely, not wanting to disappoint them. Niemiec and Ryan (2009) additionally found associations between the presence of motivation and the state of students' psychological well-being, which is something that educators should prioritize independently of academic outcomes.

Ways to Build TSRQ

All these findings together suggest that educators can improve their students' academic outcomes by forming strong positive relationships with them, thus meeting their need for relatedness. Fortunately, improving TSRQ can be relatively simple and contained to individual teacher action within the classroom, not necessarily requiring collaboration with administrative or government bodies the way other initiatives might. Though the attempts of a teacher to build a certain rapport or climate with their students may be indirectly affected by the climate of the greater systems of the school, the school district, or the state, local, and national government, many of the things students say matter the most to them are small matters of attitude and agreeableness (Deci & Ryan, 2012).

Contexts that bolster TSRQ generally involve a consistent emphasis on democratic behavior, mutual respect, use of humor, and expressions of interest in the students and their lives (Sethi & Scales, 2020; Wentzel, 1997). Teachers' democratic behaviors include letting students have a say in the way the class was run, being willing to work flexibly with students, accepting student mistakes without holding grudges, and being willing to admit their own mistakes. In terms of respect, students reported perceiving teachers' constructive criticism and high standards as a form of respect, and highlighted their desire for teachers to treat them like adults. Regarding humor, teachers who employed humor were perceived as more approachable and also more worthy of attention in times when seriousness was required. When jokes from students were met with disdain, it negatively influenced their view of the teacher. Asking about students' lives, learning about their interests, and checking up on them when they seemed to be struggling academically or emotionally were all identified as expressions of interest and care by teachers. Students also felt these actions strengthened their relationships with teachers. Though as Ryan and Deci (2020) claim there have been few steps taken to codify support for the need of relatedness in educational settings on a large scale, these findings show that there are many things individual teachers can do to foster positive relationships with students and meet those needs.

Present Study

The benefits of raising TSRQ are well-documented in existing research in core subject areas, but have received less attention in the context of world language classrooms. In addition, few researchers have examined the effects of specific interventions designed to enhance TSRQ. The purpose of this study is to explore the benefits of HAT meetings designed to improve my connection with students in the Chinese language classroom. I hypothesize that such meetings will improve students' perceptions of TSRQ, as well as their motivation, and academic achievement. My research questions were as follows:

- 1. To what extent does having HAT meetings with students improve
 - a. perceived TSRQ?
 - b. motivation?
 - c. academic achievement?
- 2. What is the relationship between TSRQ and motivation?
- 3. What behaviors do students identify as caring by teachers?
- 4. What qualities do students want their teachers to have?
- 5. What motivates students to study Chinese?

Methods

Participants

The participants in this study were 25 students in grades 9 through 12 from a rural high school in a northeastern state. The three classes sampled were Chinese levels 2, 3, and 4, with 12 students being from level 2, 8 from level 3, and 5 from level 4. In terms of race, 21 participants were White, 2 were Black, and 2 were of mixed race. 12% of participants were boys, 76% were girls, and 12% identified as nonbinary.

Intervention

The intervention involved meeting with groups of three to four students during lunch for casual conversations about their school lives, struggles and/or worries with schoolwork, and strategies for improving their class experience. Sample questions used to start the conversations included "How is school going for you right now?," "Are any assignments stressing you out?," and "Are you struggling with anything in our class?" Students signed up for the meetings themselves, thus the groups were student selected and many chose to attend these meetings with classmates they were friends with. These meetings were carried out over a three week period with two meetings held per day, each lasting around thirty minutes. By the end of the intervention, each student had attended at least one meeting and at most three.

Data Collection

This is a mixed methods study using quantitative data from two surveys as well as three qualitative open-ended questions. A modified version of Ang and Li's (2020) student version of the Teacher-Student Relationship Inventory (S-TSRI) was used to measure TSRQ. This tool asks students to rate items regarding their feelings towards the teacher and the class using a 5-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"). Higher scores reflect higher perceived TSRQ from the student's perspective.

Table 1: Research Questions and Data Sources

	Data source 1	Data source 2	Data source 3
1a. To what extent does having HAT meetings with students improve perceived TSRQ	Scale Adapted From Ang and Li's (2020) Teacher Student Relationship Inventory (pre-intervention and post-intervention)		
1b. motivation, and	Intrinsic Motivation Items from Petellier et al.'s (2013) Sport Motivation Scale (pre-intervention and post-intervention)	Identified Regulation Items from Petellier et al.'s (2020) Sport Motivation Scale (pre-intervention and post-intervention)	
1c. academic achievement?	Vocabulary quiz grades (pre-intervention and post-intervention)		
2. What is the relationship between TSRQ and Motivation?	Intrinsic Motivation Items from Petellier et al.'s (2013) Sport Motivation Scale (pre-intervention and post-intervention)	Identified Regulation Items from Petellier et al.'s (2020) Sport Motivation Scale (pre-intervention and post-intervention)	Scale Adapted From Ang and Li's (2020) Teacher Student Relationship Inventory (pre-intervention and post-intervention)
3. What behaviors do students identify as caring by teachers?	Student responses to open-response question #1 on the Teacher Student Relationship Inventory (pre-intervention		

	and post-intervention)
4. What qualities do students want their teachers to have?	Student responses to open-response question #2 on the Teacher Student Relationship Inventory (pre-intervention and post-intervention)
5. What motivates students to study Chinese?	Student responses to open-response question #1 on the Sport Motivation Scale (pre-intervention and post-intervention)

A modified version of Pelletier et al.'s (2013) Sport Motivation Scale (SMS) was adapted to measure students' intrinsic and identified motivation in Chinese. Students rated items regarding their interest and dedication towards the class/subject matter using a 5-point Likert scale with higher scores reflecting greater intrinsic and identified motivation.

Both surveys were completed twice, once at the beginning of the study and once at the end. Two open-ended short response questions were added to the end of the Teacher-Student Relationship Inventory and one open-ended short response question was added to the end of the Sport Motivation Scale as qualitative measures. Students did not include their names on the surveys. Vocabulary quiz grades at the start and end of the intervention period were used as measures of academic achievement for the class.

Data Analysis:

To determine the change in students' perceived TSRQ and motivation over the course of the intervention, I used paired t-tests of the pre-intervention and post-intervention values from the surveys. Cohen's d was used to determine the effect size. The same steps were used to determine change in the students' academic achievement from the beginning to the end of the intervention, comparing each students' unit test score at the beginning of the intervention to their score at the end of the intervention. I then estimated the association between students' motivation and TSRQ using Pearson correlation coefficients. Responses to the open-ended question were organized using first-level coding. Second-level coding was then used to identify patterns in the data.

Validity Concerns:

The original instruments of the S-TSRI and SMS have demonstrated reliability and validity over several studies, and the adjustments made to them for use in the study were minor. Certain vocabulary in the items was altered in regards to subject matter and for greater comprehensibility by students, and some items were cut due to irrelevance to the scope of the study as well as time constraints. Alterations to the items were reviewed by peers and supervisors for personal bias. Additionally, students were instructed to not give their names directly on their surveys in order to reduce possible response bias. This was particularly important in that they were sharing information about their connection with me.

In terms of the data for determining academic achievement (i.e. the quiz grades), to reduce the possibility of personal bias influencing grading, participant work was assessed and graded by a third-party educator with no vested interest in the outcomes of the study.

Results

In the present study, I investigated to what extent the implementation of HAT meetings affected students' perceived TSRQ, motivation, and academic achievement. Furthermore, I collected responses to three open-ended questions regarding what teacher behaviors students identify as "caring", what qualities students want their teachers to have, and what students' motivations are for choosing to study Chinese language.

To what extent does having HAT meetings with students improve perceived TSRQ?

In the TSRI, which was administered before and after the intervention period, students were asked to identify their level of agreement with a statement using a Likert-like scale with "5" denoting strong agreement and "1" denoting strong disagreement. There were five items of this type, all regarding the student's perception of their relationship quality with me as their teacher. An average score closer to "5" would denote a perception of a high quality relationship with their teacher, while a score closer to "1" would denote the opposite.

Table 2: Results of TSRI survey

	Pre-intervention TSRI survey	Post-intervention TSRI survey	
Mean	4.56	4.75	
Standard Deviation	0.16	0.1	
<i>p</i> -value	0.005		
Cohen's d	1.42		

Before the implementation of the HAT meetings, the average of the student's responses to all the items on the TSRI was 4.56 out of a maximum score of 5. This means that even before the intervention period, students already felt that their TSRQ with me was

high. However, that average increased to 4.75 by the end of the intervention when the TSRI was administered again (Table 2), a change that was statistically significant with a large effect size (p-value < 0.01, Cohen's d = 1.42), meaning that there was a strong relationship between the implementation of the HAT meetings and the increase in students' perceived TSRQ.

To what extent does having HAT meetings with students improve their motivation?

Like the TSRI, the SMS was administered before and after the intervention period. students were asked to identify their level of agreement with a statement regarding their motivation in Chinese class. Level of agreement was measured using a Likert-like scale with "5" denoting strong agreement and "1" denoting strong disagreement. There were four items of this type. Overall, an average score closer to "5" denotes a high degree of intrinsic motivation, while a score closer to "1" denotes the opposite.

Before the implementation of the HAT meetings, the average of the student's responses to all the items on the SMS was 4.42 out of a maximum score of 5, meaning that students' intrinsic motivation to study Chinese was high (Table 3). That average increased slightly to 4.48 after the intervention, a change that was still statistically significant, but had a very small effect size (p-value of .02, Cohen's d = .18), meaning that there was a present but weak relationship between the implementation of the HAT meetings and the increase in students' motivation in the class.

Table 3: Results of SMS survey

	Pre-intervention SMS survey	Post-intervention SMS survey	
Mean	4.42	4.48	
Standard Deviation	0.35	0.35	
<i>p</i> -value	0.02		
Cohen's d	0.18		

To what extent does having HAT meetings with students improve their academic achievement?

Student's academic achievement in this period was measured through their scores on routine vocabulary quizzes, one administered before the intervention and one after. There were no significant changes in scores, the mean score being a 91% for both the pre and post intervention quizzes (p-value = 0.93). Looking at scores on a student by student basis, there was no clear pattern in how individuals post intervention quiz scores differed from the pre intervention quiz scores. 40% of students showed gains in their post intervention scores, 36% had their scores decrease, and 24% of students had no change to their scores.

What is the relationship between TSRQ and Motivation?

The association between students' motivation and TSRQ was estimated using Pearson correlation coefficients. This association was estimated twice, using the pre and post intervention data sets from the TSRI and SMS. Both times, student's responses on the TSRI were found to have a medium positive correlation with their responses on the SMS, r=.57 for the pre intervention data sets and r=.36 for the post intervention data sets. This means that when student's perceived TSRQ was higher, their motivation in the class tended to be higher as well.

What behaviors do students identify as caring by teachers?

The TSRQ survey also included two open-response questions, the first regarding student perception of caring behaviors by teachers. Student responses to this question were organized into 10 first-level codes: providing help, answering questions, checking in regarding academic work, checking in regarding student wellbeing, engaging socially with students, cheerful demeanor, making jokes, expressing interest in student lives, listening to student problems, and being non-judgmental. Responses that touched on more than one of these behaviors were counted across multiple codes.

Figure 1 shows the distribution of student responses in both the pre and post intervention surveys. Though eight of the ten areas showed a change in comment themes from the pre to the post-survey, students consistently identified actions related to providing help and engaging socially with students, such as "checking in on how I am doing and seeing if I need any help" or "Talking to me and helping me out when I need it". The third most common response interestingly changed from the pre to the post survey from checking in regarding academic work to expressing interest in student lives.

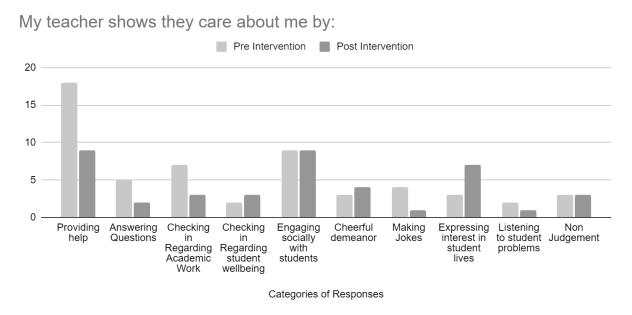


Figure 1. Frequency of responses to qualitative question #1

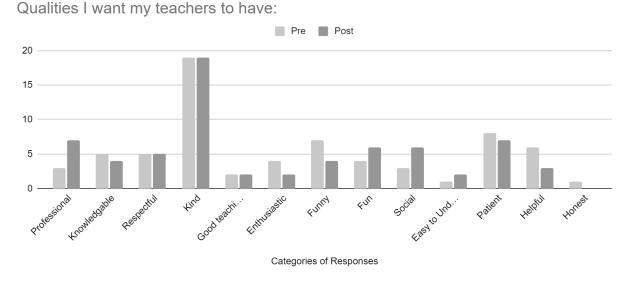


Figure 2. Frequency of responses to qualitative question #2

What qualities do students want their teachers to have?

The second open-response question on the TSRQ survey prompted students for what qualities they identified as desirable in their teachers. Student responses to this question were organized into 13 first-level codes: professional, knowledgeable, respectful, kind, good teaching skills, enthusiastic, funny, fun, social, easy to understand, patient, helpful, and honest. Responses that touched on more than one of these qualities were counted across multiple codes.

In both the pre and post intervention surveys, kindness was consistently the most common quality reported by students as a quality that they want their teachers to have. Patience was the second most common, and these qualities were often grouped together in responses.

What motivates students to study Chinese?

The SMS survey also included an open-response question regarding what motivated the student to study Chinese. Student responses to this question were organized into 10 first-level codes: fun, interesting, gain access to new information, job prospects, uniqueness, challenge, interest in the culture, utility, connection to family/heritage, and other. Responses that touched on more than one of these qualities were counted across multiple codes.

Responses showed one of the most common reasons students gave for choosing to study Chinese is that they are interested in the culture. Many also reported that they found the class fun or unique, such as one student who responded "(Chinese class) is fun and I love the language" and "(I) didn't want to do what everyone usually chose." The category of "other" contained responses that did not fit into other categories but were not frequent enough to require their own code. Such responses were in regard to things such as having been recommended the class, having a friend in the class, or wanting to participate in an extracurricular activity only available to students in the course.

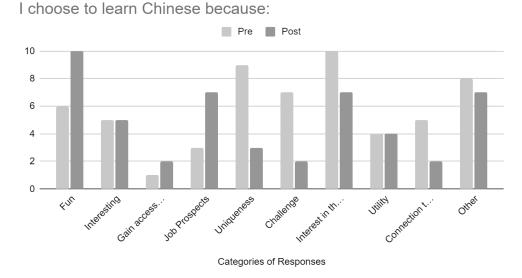


Figure 3. Frequency of responses to qualitative question #3

Discussion

The theoretical framework used to shape this study was Deci and Ryan's (2000) self-determination theory, which, as previously mentioned, purports that a person's integrity, well-being, and psychological growth is dependent on the fulfillment of the three basic needs of autonomy, competence, and relatedness. In theory, supporting these needs in students in the classroom could lead to higher levels of motivation and greater academic achievement. The implementation of HAT meetings with students was tested as a way to support the need for relatedness. The level to which students experience relatedness with their teachers can be understood as TSRQ.

The results of the TSRI showed that students' perceived TSRQ increased over the intervention period. Though students already felt a high level of relatedness to me as their teacher before the intervention, after attending the HAT meetings, those feelings of relatedness rose even higher. This suggests that the HAT meetings were effective as a way to raise TSRQ in the classroom. Additionally, the results of the SMS showed that students' feelings of motivation in the class did increase, though the degree to which they did was very minor. According to theory, because high TSRQ is associated with greater motivation and achievement, an increase in TSRQ should be followed by an increase in those other two measures (Fowler et al., 2008; Quin, 2016; Wentzel, 1997).

The results of this study somewhat support these previous findings, as the students' increase in perceived TSRQ was found to have a medium positive correlation with their motivation. However, there was no change one way or another in terms of student's quiz scores, which would have been expected to rise along with the measures of TSRQ and motivation. Looking at the results within the framework of Deci and Ryan's (2000) self-determination theory, it can be said that students' experienced greater feelings of relatedness through this intervention, which may have increased their motivation, though those increased feelings of relatedness and motivation did not translate into greater academic achievement.

Regarding the open-ended questions, student responses changed somewhat from the pre intervention surveys to the post intervention surveys. This could be for a variety of reasons; their opinions could have genuinely changed over the course of the intervention, they may have thought of something during one instance of filling out the surveys and not the other, or they may have rushed through their responses either time. However, there were some throughlines in the responses that stayed consistent.

In terms of what actions by teachers the students perceived as being demonstrative of care, the two most frequently given responses were related to the provision of help and engaging with students on a social level. These responses suggest a desire on the part of students for teachers that are not only supportive in regards to academic work, but also interact with students beyond simply the topics of the class's subject matter. The third most commonly cited type of action shifted from the pre to the post survey from checking in with students about academic work to expressing interest in students' lives. This change may relate to the content of the HAT meeting discussions, which partially focused on getting to know students on a more personal level. Since by the end of the intervention they had experienced that specific interaction in a very purposeful way it may have been fresh in their minds when they took the post survey.

For the second open-response question on the TSRI, students were asked what qualities they want their teachers to have. The most common response, overwhelmingly, was kindness. The majority of students in this study, 18 out of 23, reported wanting their teachers to be "kind" or some related virtue such as "understanding" or "empathetic". Within these responses, students sometimes provided examples of teacher actions they considered to be emblematic of kindness, such as "not pressur(ing) students", "not belittle(ing) anyone", and "help(ing) students on things when needed, even if (it) seem(s) simple." Patience was the next most common response, with the rest being somewhat similar in response frequency. These responses suggest that most of the students want teachers who, more than anything else, treat them with grace and respect, are willing to be flexible with and work with students, and do not subject students to mockery or ridicule.

The open-ended question on the SMS prompted students for the reason they chose to study Chinese, i.e. their motivation for doing so. This set of responses also shifted significantly from the pre to post survey, but the three most common reasons cited were because they were interested in the culture, because they thought the class would be fun, and because they thought the class was unique. These responses suggest that most students chose the class at least partially because of an intrinsically motivated reason, whether that be personal interest or out of a desire to experience something new and exciting.

Conclusions and Implications

Maintaining a high TSRQ has been associated with greater motivation and academic achievement in students, suggesting that interventions to raise TSRQ may also raise those variables (Niemiec & Ryan, 2009; Ryan & Deci, 2020; Thornberg et al., 2020). The results of this study somewhat support that research and theory. Specifically, while student motivation was found to have a statistically significant increase over the course of the intervention, the effect size was small. On the other hand, there was no change in student academic achievement as measured by their quiz grades. However, the student's perceived

TSRQ did show a statistically significant increase with a large effect size, suggesting that the implementation of HAT meetings is effective as a way to raise TSRQ.

Limitations

This study had multiple limitations, the most impactful of which was probably the three week time frame in which it was implemented. This shorter window meant that I met with students in HAT meetings at most twice, and some I only got to meet with once. It is also possible that the students' motivation and academic achievement would have shown a change if the intervention continued on for a longer period of time. My sample size was also very small, only 25 students. Additionally, by the time of the study I had already known and been working with these students for months, which likely affected how they filled out their pre intervention TSRIs. Lastly, the method I used to measure academic achievement had many limitations. As a vocabulary quiz, the results of it cannot be said to be indicative of a student's total achievement in the class, just their mastery of the vocabulary. Also, the average quiz score that students had at the start and the end of the study, a 91%, is already a high score; it may be unrealistic to expect the average to climb much higher.

Implications

A result of this study that would be of particular interest to world language teachers is the responses regarding reasons for choosing to study Chinese. Students overwhelmingly cited intrinsically motivated reasons for starting their study, such as personal interest in the culture or a perception that the language is fun and unique. Thus, in order to encourage students to continue their language studies, language teachers should take into account why their students started in the first place and make sure that that drive is rewarded through the content of the class.

In the future, further research on this intervention over a longer period of time may show more significant results in terms of changes to motivation and academic achievement. Other variables related to TSRQ could also be investigated, such as attendance and instances of off-task and/or oppositional behavior. Another interesting avenue of investigation could be to try carrying out these HAT meetings in the target language of the world language classroom, then measuring how variables like motivation and speaking anxiety are affected.

In order to best reach students, teachers need to treat them like people, not just a mind to be molded. I encourage teachers looking to strengthen their relationships with their students to try an intervention like these HAT meetings, where you purposefully set aside time to get to know students. I plan to continue offering HAT meetings when I get my own classroom. Regardless of the benefits to motivation and academic achievement the intervention may or may not provide, it did raise the TSRQ between these students and I. If nothing else, it made the classroom climate more enjoyable and made students feel cared for, which I believe is as much our responsibility as educators as guiding them to academic success.

References

Deci, E. L., & Ryan, R. M. (2016). Optimizing students' motivation in the era of testing and pressure: A self-determination theory perspective. In *Building Autonomous Learners* (pp. 9-29). Springer, Singapore.

Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *The Oxford Handbook of Human Motivation* (pp. 85–107). Oxford University Press.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268. https://doi.org/10.1207/S15327965PLI1104.01

Fowler, L. T. S., Banks, T. I., Anhalt, K., Der, H. H., & Kalis, T. (2008). The association between externalizing behavior problems, teacher-student relationship quality, and academic performance in young urban learners. *Behavioral Disorders*, *33*(3), 167-183. https://doi.org/10.1177/019874290803300304

Gehlbach, H., Brinkworth, M. E., King, A. M., Hsu, L. M., McIntyre, J., & Rogers, T. (2016). Creating birds of similar feathers: Leveraging similarity to improve teacher–student relationships and academic achievement. *Journal of Educational Psychology*, *108*(3), 342. https://psycnet.apa.org/doi/10.1037/edu0000042

Glisan, E. W., & Donato, R. (2021). *Enacting the work of language instruction: High-leverage teaching practices.* The American Council on the Teaching of Foreign Languages.

Hughes, J. N. (2011). Longitudinal effects of teacher and student perceptions of teacher-student relationship qualities on academic adjustment. *The Elementary School Journal*, 112(1), 38-60. https://doi.org/10.1086/660686

Hughes, J. N., Wu, J. Y., Kwok, O. M., Villarreal, V., & Johnson, A. Y. (2012). Indirect effects of child reports of teacher–student relationship on achievement. *Journal of Educational Psychology*, *104*(2), 350. https://psycnet.apa.org/doi/10.1037/a0026339

Longobardi, C., Settanni, M., Prino, L. E., Fabris, M. A., & Marengo, D. (2019). Students' psychological adjustment in normative school transitions from kindergarten to high school: Investigating the role of teacher-student relationship quality. *Frontiers in Psychology*, *10*, 1238. https://doi.org/10.3389/fpsyg.2019.01238

Martin, A. J., & Collie, R. J. (2019). Teacher–student relationships and students' engagement in high school: Does the number of negative and positive relationships with teachers matter? *Journal of Educational Psychology*, 111(5), 861. https://psycnet.apa.org/doi/10.1037/edu0000317

Modern Language Association. (2018, February 23). Language enrollment database,

1958–2016. Modern Language Association. Retrieved October 5, 2022, from http://apps.mla.org/flsurvev_search

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, 7(2), 133-144. https://doi.org/10.1177/1477878509104318

Noble, R. N., Heath, N., Krause, A., & Rogers, M. (2021). Teacher-student relationships and high school drop-out: applying a working alliance framework. *Canadian Journal of School Psychology*, *36*(3), 221-234. https://doi.org/10.1177/0829573520972558

Quin, D. (2016). Longitudinal and Contextual Associations Between Teacher–Student Relationships and Student Engagement. *Review of Educational Research*, *87*(2), 345-387. https://doi.org/10.3102/0034654316669434

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, *61*, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68. https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.68

Sethi, J., & Scales, P. C. (2020). Developmental relationships and school success: How teachers, parents, and friends affect educational outcomes and what actions students say matter most. *Contemporary Educational Psychology*, *63*, 101904. https://doi.org/10.1016/j.cedpsych.2020.101904

Thornberg, R., Forsberg, C., Chiriac, E. H., & Bjereld, Y. (2020). Teacher–student relationship quality and student engagement: A sequential explanatory mixed-methods study. *Research Papers in Education*, 37(6), 1-20. https://doi.org/10.1080/02671522.2020.1864772

Vargas-Madriz, L. F., & Konishi, C. (2021). The Relationship between Social Support and Student Academic Involvement: The Mediating Role of School Belonging. *Canadian Journal of School Psychology*, *36*(4), 290-303. https://doi.org/10.1177/08295735211034713

Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89(3), 411. https://psycnet.apa.org/doi/10.1037/0022-0663.89.3.411

Appendix

Appendix A: Sample student response format for the S-TSRI

Please indicate your level of agreement with each statement by circling the appropriate number. For the last questions, please answer in as few or as many words as you feel necessary.

My relationship with this teacher is positive	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
If this teacher retires or leaves the school, I will miss him/her	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
I like this teacher	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
If I need help, I will go to this teacher	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
I feel that this teacher cares about me	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
My teacher shows they care about me by:					
Some qualities I want my teachers to have are:					

Appendix B: Sample student response format for the SMS

Please indicate your level of agreement with each statement by circling the appropriate number. For the last question, please answer in as few or as many words as you feel necessary.

I take part in Chinese class because:	
It is fun to learn more about Chinese language and culture	1 2 3 4 5 Strongly Disagree Neutral Agree Strongly agree
It is satisfying improve my language skills	1 2 3 4 5 Strongly Disagree Neutral Agree Strongly agree
I have chosen learning Chinese as a way to develop myself	1 2 3 4 5 Strongly Disagree Neutral Agree Strongly agree
I think it is important for my future goals	1 2 3 4 5 Strongly Disagree Neutral Agree Strongly agree
I chose to learn Chinese because:	