

Academic Resilience in Chinese EFL Classrooms: Relationship with Teacher Support Activities

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Abstract: Objectives: The present study aimed to test the hypothesized relationship between the support provided by teachers in Chinese EFL classrooms and the academic resilience of the students. Method: The sample included 208 (131 females and 77 males) high school students. The measures used for the present study were the Academic Resilience Scale-30(ARS-30) and the Teacher as Social Context Questionnaire(TASCQ). After the external validity of the scales was testified, these scales were used to examine the influence of teacher supportive activities on academic resilience in EFL classrooms in China. Results: In the context of Chinese EFL classrooms, student-perceived teacher support tends to be a unidimensional factor, without significant variation found among the hypothesized subdimensions of structure, autonomy, and involvement support. (2) Teachers' supportive activities perceived by the only-child group indicated a significant difference from the children with siblings group ($t = 2.37, p < .05$). Additionally, a significant effect of parental educational background on perceived teacher support was also identified ($F=11.34, p <.001$). Students whose mother had a higher level of education achieved higher scores in both academic resilience and teacher support ($F=3.36, p<0.05, F=12.46, p < .001$). (3) Teacher support had a positive effect on academic resilience ($\beta = 0.451, p < .001$), and it also had significantly positive effect on three dimensions of academic resilience($\beta = 0.416, 0.498, 0.342, p < .01$)

Keywords: academic resilience, teacher support, EFL classrooms, high school students

1. Introduction

Senior high school students in China are confronted with the National Higher Education Entrance Examination(Gaokao), which is widely regarded as the most important examination in their lives(Burkhoff 2015). Students are pushed to spare no effort to gain a higher score by this high-stake examination. In addition, the competition in this examination is keen. It was dubbed as “single wooden pole bridge”, millions of high school graduates attend this examination per year to contend a ticket of universities, which brings great academic stress for students in their daily life(Ruiqing, 2013). English is one of the compulsory subjects for most candidates. Because of the large difference between the Indo-European and Sino-Tibetan families of languages, the study of English is relatively challenging for Chinese students than that of those subjects (For example, Chinese, Math, History). For these reasons, academic burnout, anxiety and other negative psychological states have become a widespread problem among Chinese EFL students.

Under that circumstances, the ability to sustain stable development in academic performance under stressful situation is necessary for students in Chinese EFL classrooms. There is some evidence to suggest that students with high level of resilience are more inclined to participate in class, and are more likely to enjoy school and experience a general positive affect with regards to themselves (Meneghel, Martínez et al. 2019, Kim, Kim et al. 2019), which prove that academic resilience is able to mitigate the problems among Chinese EFL students listed above. Fostering students' academic resilience may decrease students' vulnerability to psychological problems. Teacher as an important role in students' school life will definitely have some influence on students' psychological well-being. In past literature, the support activities from teachers which can fulfill students' demand exerted significant influence on students' psychology like engagement, autonomy and motivation (Weyns, Colpin, De Laet, Engels & Verschueren, 2018, Reeve & Jang, 2006, Skinner & Belmont, 1993). There is early evidence that perceived teacher support was significantly correlated to student learning strategy and it also affected the tendency of question asking, which obviously implicates the supportive role of teacher support in the maintenance of student well-being. However, previous research about academic resilience facilitation typically only investigated from microcosmic perspective, like teachers' expectation or teacher-student

relationship(Crosnoe & Johnson et al. 2004, Sandoval & Bialowolski 2016). Research on the predictive value of total teacher support behaviors on AR remains unexplored. Therefore, this research aims to address this gap and provide a clearer reference for AR intervention.

2. Literature Review

Academic resilience is defined as a student's ability to effectively deal with setbacks, challenges, adversity, and pressure in the academic setting. Alva (1991) borrowed the concept of resilience from other academic fields to crystalize this ability, which was later termed by Wang, Haertal, and Walberg (1994) as academic resilience (AR). Martin (Martin & Marsh, 2006) suggested that there are five factors that make a student resilient: self-efficacy; control; planning; low anxiety; and persistence. Students who are high in self-efficacy will feel confident about their ability to overcome difficulties. Control refers to the extent to which students feel they are able to avoid failure and achieve success(Martin 2002). Planning is about how students manage the resources around them coordinately. Anxiety is relevant to fear of failure, and students who are not afraid of failure will performed better in adversities(Martin & Marsh 2011). Persistence refers to the consistent commitment in achieving a goal.

As cognitively discrete yet close factors, these five sub-dimensions of AR can be separately facilitated and, in turn, nurtures the development of AR. To be more specific, self-efficacy can be enhanced by restructuring learning to maximize opportunities for success. The development of persistence involves encouraging students to set effective goals and showing them how to work towards their goals. Focusing on developing students' self-regulatory skills is an important way of enhancing their capability to plan. Showing students how hard work and effective study strategies impact on achievement can enhance their sense of control (Martin & Marsh, 2006). In addition, encouraging help-seeking tendencies, promoting students' ability to cooperate and acquiring interpersonal skills can also foster students' academic resilience (Downey 2008, Morales 2014).

There are some other external factors that are considered direct protective factors of students' academic resilience: parental support; mentoring by the teacher or support by the school (Sun and Stewart 2010). Other factors that have an explicit impact on students' academic resilience include: caring relationships with other people; engagement of the student's family with the student's schooling; the availability of prosocial role models; safe neighborhoods; clear and high expectations regarding a student's performance and success; and meaningful involvement of the student in their school and community (Covell, Howe, & Polegato, 2015, Sandoval-Hernández & Białowski, 2016, Li & Yeung, 2017). Bryan suggested that partnerships between schools, families, and communities can provide the enrichment opportunities, support, and programs that students need to be educationally resilient despite adversity (Bryan, Williams et al. 2020). Furthermore, according to Kourkoutas, parent-teacher professional partnerships can also support students to become resilient (Kourkoutas, Eleftherakis et al. 2015). Except for family support and student involvement in the school and community, Catterall found that school responsiveness to students' needs was also a necessary protective factor (Catterall, 2011).

Based on the Self-Determination Theory, basic human needs and the pursuit of their satisfaction drive human thinking and behavior (Deci & Ryan, 1985). Relatedness, competence, and autonomy are the three needs which are seen as particularly fundamental (Ryan & Deci, 2020). Satisfaction of these needs can promote psychological well-being of a student (Niemiec, Lynch et al. 2006). Teachers play some of the most important roles in students' lives and can assist students in achieving satisfaction through their behavior. According to Skinner and Belmont, three types of instructional practices, namely, structure, autonomy support, and involvement, can satisfy students' fundamental needs (Skinner & Belmont 1993). Structure refers to the amount of information in the context about how to effectively achieve desired outcomes, and it is the opposite of chaos (Skinner, Ellen et al. 1993). It aims to create an orderly, helpful learning environment to develop students' competence. Teacher do this by clarifying expectations about fairness, adjusting their teaching strategies to students' level and demands, providing consistent information and feedback, and offering instrumental help and support (Skinner, Ellen et al. 1993, Klem & Connell 2004, Ahn, Patrick et al. 2018, Iglesias-García, Maulana et al. 2019). Autonomy support are the behaviors of teachers that assist students' to feel self-directed and autonomous (Ahn, Patrick et al. 2018). According to Ryan and Deci (Deci & Ryan 1985), students inherently have the need for self-determination, and students will feel more intrinsically motivated when they perceive their actions as autonomous. This is unlikely to happen under conditions of control or reinforcement. A teacher should provide different choices to the student about learning, the opportunities to make decisions for themselves and a meaningful rationale about their work. (Klem & Connell 2004, Edmunds, Ntoumanis et al. 2008). The involvement of teachers creates meaningful connections with their students, by interacting with their

students in a warm fashion and showing a personal interest in them (Aelterman, Vansteenkiste et al. 2014). Involvement of the teacher gives students emotional support, and promotes students' feeling of relatedness. It includes teachers' affection, attunement, dedication of resources, and dependability (Iglesias-García, Maulana et al. 2019).

In the literature, teachers' supportive behaviors are able to fulfill the three basic psychological needs of students and subsequently improve their academic engagement and personal motivation (Brewster, Bowen et al. 2004, Cox & Williams 2008, Maulana, Helms-Lorenz et al. 2016). Therefore, it can also be regarded as protective factors that foster academic resilience. Empirically, some studies have partly shown that the support of the teacher is correlated with the academic resilience of the students. For example, positive expectations of teachers and caring relationships between teachers and students have been found to be the protective factors that promote the academic resilience of students (Henderson, 1997, Brooks, 2006, Sandoval & Białowolski, 2016). A study by Grotberg found that external support, including a trusting relationship, structure, and the encouragement of autonomy, can promote students' becoming resilient (Grotberg, 1995). According to Heshime, involvement, structure, and autonomy support were direct predictors of educational resilience, while involvement was the strongest predictor (Zahra, 2015). Given the previous studies on academic resilience, it seems clear that teacher support plays a role in promoting academic resilience among students. However, except for Heshime's study, the relationship between teacher support and academic resilience has not been fully investigated. Furthermore, no study has investigated this relationship in the context of students learning in their second language.

According to Wei Wang, students as the only child in urban settings are very likely to have more highly educated parents who have upper-level careers and higher family economic levels. The results showed that these students had a better ability to communicate compared to students that have siblings (Wei, Jie et al. 2020). Therefore, whether the student is the only child in family or not can be one of the factor to influence teachers' supportive activities and academic resilience. Furthermore, some researches show that parents' education level is related to their involvement and strategies used in their children's education(Vellymalay 2011, Sharabi and Marom-Golan 2018), thus parents' education background is also one of variance investigated in the present study.

3. The current study

The purpose of the present study was to portray students' academic resilience in Chinese EFL classrooms as well as its relationship with the hypothesized protective factors of teacher supportive activities. To achieve this, the following questions were answered:

- (1) Are the scales of teacher supportive activities and students' academic resilience reliable and valid in the context of Chinese EFL classrooms?
- (2) Are there gender or family background effects regarding the student-perceived teacher support and academic resilience?
- (3) Can teacher supportive activities predict students' academic resilience?

4. Method

4.1 Participants and procedures

Two cohorts of participants were included in the study. In the first stage of the study, a total of 155 students (63 males and 92 females, age range:15-19 years) participated in the investigation. The second stage of the study surveyed 208 students (77 male and 131 females, age range: 15-19 years) from 8 public senior high schools in China. All measured were delivered and responded in one EFL lesson.

The data were collected online. A briefing was given to the participants that there was no "right" or "wrong" response because of differences between individuals. In the first stage of the study, data from 155 senior high school students were collected and used to revise the ARS-30 and TASCQ in the target context. In the second stage, a demographic form was added to collect the following additional information from each of the students participating in the present study: their gender, the name of their school, whether they are an only child or not, and their parents' level of education. To guarantee the veracity of the present study, the questionnaires were filled in anonymously.

4.2 Instruments

The Academic Resilience Scale-30 (ARS-30)

ARS-30 was originally developed and validated by Cassidy to evaluate the academic resilience of the undergraduate (Cassidy, 2016). There are three sub-scales (i.e., perseverance, reflecting/adaptive help-seeking, and negative affect), each consists of 14, 9 and 7 items respectively. The verbiage of this measure was adapted slightly to make certain items relevant to the lives of senior high school students' that are learning in English. For example, "You have received your mark for a recent assignment and it is a 'fail.'" was changed to "You have received a poor mark for a recent English examination." A 5-point Likert-type scale was used to collect responses, ranging from 1 (strongly disagree) to 5 (strongly agree). Good reliability coefficient alpha was found for each sub-scale (alphas = 0.891, 0.894, 0.838) and the general scale (alpha = 0.95).

The Teacher as Social Context Questionnaire (TASCQ)

The TASCQ (Belmont, 1992) measures students' perception of their teacher's need-supportive practices. There are three sub-scales of Involvement Support, Autonomy Support and Structure Support, each includes 8 items. The response are rated on a 5-point Likert scale, ranging from 1 (not at all true) to 5 (very true). The scale has been proved to be reliable in the contexts of secondary school(alpha =0.78)(Haerens, Aelterman et al. 2013). The scale was adapted to Chinese senior high school students as part of the present research process.

4.3 Analysis methods

To test the external validity of the two scales, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed using the software AMOS 21.0. The following indices were used to determine the model fit: Comparative Fit Index ($CFI \geq 0.90$); the Tucker-Lewis Index ($TLI \geq 0.90$); standardized root mean squared residual (SRMR), and the Root Mean Square Error of Approximation ($RMSEA \leq 0.08$). Then, the variation analysis was performed using the software SPSS 25, and to test the influence of teachers' supportive activities on academic resilience, structural equation modeling was used to test the hypothesized models.

5. Results

5.1 Construct Validity in the context of Chinese EFL classrooms

ARS-30

To guarantee the validity of these two scales, the factors loaded 0.5 or higher on the expected factor were retained. The results of CFA suggested good model fit for ARS-30 after removing the original items 1,2,5,6,7,12,14,15,20,23,26,2,29(CMIN/DF = 1.799; CFI = 0.942; TLI = 0.931; SRMR = 0.044; RMSEA = 0.072 (see Table 1). The remaining 17 items, along with their factor loadings, were also illustrated in Table 1. After making a revision, Cronbach's alpha coefficient was 0.941 for the global scale. Cronbach alpha coefficients for the sub-dimensions of perseverance, reflecting/adaptive help-seeking, and negative affect were 0.865, 0.892, 0.772 respectively.

TASCQ scale

The new three factors instrument included 17 of the original 30 items, and according to the CFA No. 9 and No. 13 were included in factor 2.

Three factors appeared to emerge from a principal factor analysis (maximum likelihood) with oblique rotation of the TASCQ measures. The three factors accounted for 51.31% of the variance in the data, but the first factor's eigenvalue was 8.351, while the second factor's eigenvalue was 2.277, and the ratio of the first factor's eigenvalue was much higher than the second factor's eigenvalue compared to the other ratios of the adjacent factors' eigenvalues. Furthermore, compared to other factor structures, a one-factor model fit the data the best (see Table 2). Taken together, we chose to construct teaching support as a unidimensional concept. And for better interpretation and model fit, items with factor loading below .5 were removed, leaving 12 items (see Table 1). After making a revision, Cronbach's alpha coefficient was 0.911 for the global scale.

Table 1: Results of the factor analysis of academic resilience.

Factor1		Factor2		Factor3	
Perseverance($\alpha=0.879$)		Reflecting/Adaptive help-seeking($\alpha=0.871$)		Negative affect($\alpha=.0512$)	
Item	Factor loading	Item	Factor loading	Item	Factor loading
11	0.80	27	0.87	28	0.65
16	0.71	22	0.87	7	0.40
2	0.57	26	0.56	12	-0.13
3	0.72	24	0.86	14	0.06
13	0.85	25	0.89	19	0.05
5	0.25	21	0.66	6	-0.24
4	0.81	20	0.39	23	0.84
17	0.75	29	0.49		
8	0.70	18	0.71		
30	0.79				
10	0.70				
9	0.66				
15	0.49				
1	0.38				

Table 2: Estimates of model-to-data fit for the confirmatory factor analysis.

	CMIN/DF	GFI	CFI	TLI	SRMR	RMSEA
Three-factor model	2.468	0.850	0.889	0.863	0.070	0.098
One-factor model	1.635	0.917	0.963	0.953	0.047	0.064

Table 3: Results of the factor analysis of teacher support.

Item	Factor loading	Item	Factor loading
1	0.68	13	0.68
2	0.73	14	0.46
3	0.47	15	0.30
4	0.58	16	0.74
5	0.22	17	0.61
6	0.42	18	0.26
7	0.47	19	0.49
8	0.61	20	0.69
9	0.74	21	0.71
10	0.79	22	0.40
11	-0.05	23	0.59
12	0.49	24	0.49
Cronbach's α	0.907		

In the second stage of the present study, the reliability of the ARS-30 scale was assessed by using Cronbach's alpha (0.95) for the present sample. Cronbach's alpha was also used to assess the reliability of the three sub-dimensions of perseverance, reflecting/adaptive help-seeking, and negative affect and were found to be 0.891, 0.894, and 0.838, respectively. The results of TASCQ questionnaire showed that the form of the scale consisted of 12 items and one dimension that were well adapted to Chinese culture. The reliability of the scale in the present sample had a Cronbach's alpha of 0.909.

5.2 Descriptive analyses

The sample consisted of 208 participants (37.01% male). The mean academic resilience of the sample was 4.01 ($sd = 0.74$). For the dimensions of academic resilience, the mean perseverance value of the sample was 4.09 ($sd = 0.72$). The mean reflecting/adaptive help-seeking value of the sample was 3.93 ($sd = 0.83$). The mean Negative affect value of the sample was 4 ($sd = 0.82$). The mean value for teacher support as perceived by the students was 3.50 ($sd = 0.81$).

5.3 Variation Analysis

The differences in academic resilience and teacher support between participants from different background groups are reported in Table 4 and 5.-The only-child group was significant different from the child with siblings group in terms of perceived teacher support. ($t = 2.37, p < .05$). The father's level of education had a significant effect on the students' perception of teacher support ($F = 11.34, p < .001$). The students whose mothers had higher levels of education had higher scores for both academic resilience and teacher support ($F = 3.36, p < 0.05$, $F = 12.46, p < .001$). Furthermore, the analysis also showed that the father's level of education had a significant effect on perseverance ($F = 4.46, p < 0.05$), which is one of the dimensions of academic resilience.

Table 4: Independent sample t test differences in the academic resilience and teacher support between male and female students and information on whether they are an only child or not is provided

Variables	Demographic		N	Mean	S.D.	T
Academic resilience	Sex	Female	131	4.07	0.65	1.72
		Male	77	3.90	0.86	
Teacher support		Female	131	3.56	0.82	1.45
		Male	77	3.39	0.08	
Academic resilience	Whether they are an only child or not	An only child	94	4.11	0.65	1.83
		Child with siblings	114	3.93	0.79	
Teacher support		An only child	94	3.64	0.75	2.38*
		Child with siblings	114	3.38	0.84	

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5: ANOVA model of the levels of education of the Fathers and Mothers of the students, and the academic resilience of the students, and the students' perceptions of teacher support.

Variation	Demographic		N	Mean	S.D.	F
Academic resilience	Father's educational level	Junior high school and under junior high school	91	3.88	0.80	2.57
		Senior high school	59	4.08	0.71	
		Undergraduate or postgraduate	58	4.14	0.62	
Teacher support		Junior high school and under junior high school	91	3.21	0.79	11.34***
		Senior high school	59	3.73	0.78	
		Undergraduate or postgraduate	58	3.71	0.74	
Academic resilience	Mother's educational level	Junior high school and under junior high school	101	3.88	0.83	3.36*
		Senior high school	55	4.12	0.62	
		Undergraduate or postgraduate	52	4.15	0.62	
Teacher support		Junior high school and under junior high school	101	3.22	0.84	12.46***
		Senior high school	55	3.70	0.73	
		Undergraduate or postgraduate	52	3.81	0.66	

* $p < .05$, ** $p < .01$, *** $p < .001$

5.4 Relationship between teacher support activities and academic resilience

Correlation analysis were conducted to compute the relationship between the overall teacher support activities, academic resilience and each academic resilience subscale (three in total). It was found that

the teacher support activities was positively correlated with the overall academic resilience($r=0.451, p<0.01$), and it was also significantly related to the three dimensions of academic resilience, perseverance, reflecting/adaptive help-seeking, negative affect(see Table 6).

Table 6: The correlation of the teacher support activities and academic resilience

	PER	REF	NA	AR
TSA	.416**	.498**	.342**	.451**

* $p<0.05$, ** $p<0.01$, *** $p<0.001$ PER=Perseverance REF= Reflecting/Adaptive help-seeking NA=Negative affect AR= Academic resilience TSA=Teacher support activities

5.5 Influence of teacher support activities on academic resilience

The regression analysis was used to assess the influence of teacher support activities on academic resilience. The results revealed statistical significance, wherein $F(1,206)=52.583$, $t=7.251$, $P<0.001$, and the overall teacher supportive activities accounted for 20.3 percent of variance in academic resilience($\beta=0.451$).

A regression analysis was also conducted to test the influence of all the teacher support activities on the subscales of academic resilience. Table 7 shows the results of regression analysis. As shown in Table 3, teacher support activities have the significantly positive effect on perseverance($F(1,206)= 43.070$, $P < 0.001$) and accounted for approximately 17.3 percent of the variance of perseverance. Teacher support activities was also the predictor of reflecting or adaptive help-seeking, and the regression model revealed the statistical significance($F(1,206)= 68.085$, $P < 0.001$). It accounted for approximately 24.8 percent of reflecting or adaptive help-seeking. Furthermore, teacher support activities also had significantly positive effect on negative affect ($F(1,206)= 27.360$, $P < 0.001$), and it accounted for 11.7 percent of the variance of negative affect.

Table 7: Results of regression analysis

Dependent variable	Predictable variable	R ²	β	t	F
PER		0.173	0.416	6.563***	43.070***
REF	TST	0.248	0.498	8.251***	68.085***
NA		0.117	0.342	5.231***	27.360***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ PER=Perseverance REF= Reflecting/Adaptive help-seeking NA=Negative affect TSA=Teacher support activities

6. Discussion

6.1 External validity in the context of Chinese EFL classrooms

In the present study, the results showed that, in the context of Chinese EFL classrooms, student-perceived teacher need-support is unidimensional rather than multidimensional with three sub-factors of autonomy support, structure support or involvement support. This was consistent with the results of the study done by Ludwell and Ahn (Oga-Baldwin and Nakata 2015, Ahn, Patrick et al. 2018). In addition, in the Chinese EFL classrooms, some behaviors mentioned in the TASCQ questionnaire did not distinctly belong to only one factor. For example, the Autonomy Support item “In my class, my teacher talks about how I can use the things we learn in school” conveyed more than one type of teacher support, and it appeared to be similar to Structure Support (i.e., offering instrumental help and support). Furthermore, some items have the same meaning. For instance, the Autonomy Support item “My teacher gives me a lot of choices about how I do my schoolwork.” included a similar meaning to the Structure Support item of “If I can’t solve a problem, my teacher shows me different ways to try to.” To some extent both of them mean that the teacher provided the student with choices.

Furthermore, the construct validity of ARS-30 scale shows that the three dimensions of academic resilience were supported satisfactorily. In general, the results of analysis indicated that both scales, after modification, can reliably and validly measure academic resilience and teachers’ supportive activities in the context of Chinese EFL classrooms.

6.2 Background effects on student perceived teacher support and academic resilience

As for the effects of personal backgrounds on two target factors, the results showed that students that are an only child rated their teachers' supportive activities higher. This indicated that the students that are the only child communicate more actively with their teachers, which resulted in them obtaining more attention and support from their teachers. In addition, most "only children" are born in urban area since the "only-child" policy did not implement strictly in countryside. Living in urban areas meant that more educational resources were available and more teachers with better professional qualifications work at urban schools, and are more likely to satisfy students' needs.

The students' whose fathers graduated from senior high school or above reported greater scores in perceived teacher support. The students' whose mothers achieved a Bachelor's degree or above reported greater academic resilience and perceived teacher support. This reflects that mothers have a greater impact on improving the academic resilience of children. One explanation of this might be that in Chinese culture fathers are responsible for providing financial support to their family, while mothers play a more important role in childcare and education. Thus, children are more likely to be affected by their mother. Higher scores of perceived teacher support by students whose parents have better educational backgrounds was attributed to their performance in EFL classrooms. There was a highly positive correlation between the educational background of the parents' and their children's achievement in English (Wei et al., 2020). The students who performed better in the English classes may attract more attention from their teachers and this would lead to them more acutely perceiving having received support from their teachers.

6.3 The relationship between teacher support activities and academic resilience

The present study also indicated that teachers' need-support had a positive effect on the academic resilience of students in Chinese EFL classrooms. The result was consistent with earlier studies whereby perceived social support significantly predicted the psychological resilience or academic resilience of students (Bilgin & Taş, 2018; Pitzer & Skinner, 2016; Zahra, 2015). Teachers' behaviors that satisfy students' demands have the benefits of establishing close and harmonious relationships between students and their teachers. This promotes self-efficacy and the capability to solve problems among the students. Under these circumstances, students would trust the teachers and be more likely to approach the teachers for help. In addition, establishing the structural context and providing support for autonomy would increase students' confidence when they face difficulties,

which may prevent the sense of "helplessness" (Seligman, 1975). Thus, teacher support activities can help students to stick to study and reflect or seek help during study., which also has positive impact on the capability to regulate emotion. In conclusion, with the help of teacher support activities, students will become more perseverant in their study. They will solve problems actively when they face difficulties, and they are less vulnerable to negative emotion as their need has been fulfilled. Therefore, academic resilience was fostered by teachers' support to the students.

6.4 Practical implications

The results can have a range of practical implications. For the educational evaluation, the present study provides newly-validated instruments for teachers and researchers to assess teaching quality and student academic resilience. The academic resilience and teacher support activities in Chinese EFL classroom will be evaluated more efficiently due to the ready-made instruments.

Another key practical implication from this research is the inspiration for enhancement of didactics in EFL classrooms. Teacher can improve student AR by satisfying students' need of relatedness, competence and autonomy. Firstly, given that a reasonable goal setting is the guarantee of student academic perseverance, it is particularly important for educators to assist their students to set a proper goal which needs to be based on the current academic progress. Secondly, the evaluation of academic outcome should integrate the formative assessment. Formative assessment are the appraisals in the process of learning, which assists teachers and students to recognize and respond to academic learning. It can encourage student to reflect on their study process, compensating the shortcomings of now prevailing summative assessment and bolstering student resilience. Thirdly, academic interest is the determinant of study motivation. It will be favorable for student academic resilience if educators can transfer students' individual interest to academic interest. For example, teacher can encourage student to have an English speech to introduce their hobbies, helping student to acquire language expressions

efficiently. Fourthly, cooperative activities are highly recommended for improving academic resilience, for it is helpful for strengthening peer relationships and establishing a friendly and harmonious classroom climate. Students' adaptive help-seeking can be motivated under a positive educational climate. Lastly, fulfilling student need of autonomy is a significant part of teacher support activities. Preserving student freedom in language learning linked to successful learning experiences and life satisfaction. Therefore, it is applicable for educator to give student opportunities to have self-directed learning and provide student with more choices in English learning.

7. Limitations and research directions

As any other research, this study has its limitations. Firstly, it utilized a cross-sectional design and relied heavily on convenient sampling, which has important limitations on establishing cause-effect relationships. Secondly, measuring the qualifications of students based solely on self-reporting has negative influences on accuracy. Another limitation was that the sample of the present study was small, so it was hard to get comprehensive results.

In order to remedy these limitations, there are some recommendations for future research. Firstly, longitudinal design will be more applicable in order to assess the long-standing effects of teacher support activities on academic resilience. In addition, the choice of some other research approaches, especially observation or qualitative methods, may offer a broader perspective of the relationship between teacher support and academic resilience. Since the sample size in the current study was small, future research should diversify similar research, by including a larger sample size from other age groups and different countries.

8. Conclusion

The present study first tested the external validity of teacher support perceived by students and the academic resilience of the students in Chinese EFL classrooms. Then, it investigated the effects of students' background factors on these two factors and how they relate to each other. The results demonstrated that there is no significant difference between males and females in terms of academic resilience and perceived teacher support, but family background especially parents' educational level has significant effect on teacher support and academic resilience. The results also showed that the students did not differentiate between the TASCQ items that it was designed to measure (i.e., the three dimensions of teacher support). In doing so, we contributed not only to our understanding of the relationship between academic resilience of students and teacher support, but also demonstrated that the best fit for the TASCQ questionnaire was a single factor.

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Appendix

1. Questionnaire items for academic resilience and teacher support

I. Academic Resilience

You have received your mark for a recent formal English examination and it is a “fail”. The mark for two other recent English tests were also poorer than you would want as you are aiming to get as good a degree as you can because you have clear goals of being admitted to a university and you don’t want to disappoint your family. The feedback from your English teacher is quite critical, including reference to “lack of understanding” and “poor writing and expression,”, but it also includes ways that the work could be improved.

Sub-scale of perseverance

- Item3 I would just give up studying English
- Item4 I would use the situation to motivate myself
- Item8 I would see the situation as a challenge
- Item10 I would see the situation as temporary
- Item11 I would study English harder
- Item16 I would keep trying
- Item17 I would not change my long-term goals and ambitions
- Item30 I would look forward to showing that I can improve my grades

Sub-scale of reflecting and adaptive help-seeking

- Item18 I would use my past successes in studying English to help motivate myself
- Item22 I would give myself encouragement
- Item21 I would seek help from my teachers
- Item24 I would try different ways to study English
- Item25 I would set my own goals for getting good grades
- Item27 I would try to think more about my strengths and weaknesses to help me study better

Sub-scale of negative affect and emotional response

- Item9 I would do my best to stop thinking negative thoughts
- Item13 I would try to think of new solutions
- Item23 I would stop myself from panicking

II. Teacher as Social Context Questionnaire

In English class and English study:

- Item1 My teacher likes me
- Item2 My teacher really cares about me
- Item4 My teacher doesn’t tell me what he or she expects of me in class
- Item8 My teacher spends time with me
- Item10 My teacher listens to my ideas
- Item9 My teacher talks with me
- Item16 If I can’t solve a problem, my teacher shows me different ways to try to

- Item17 My teacher makes sure I understand before he or she goes on
- Item20 My teacher doesn't listen to my opinion
- Item21 My teacher talks about how I can use the things we learn in school
- Item23 My teacher knows me well
- Item13 My teacher shows me different ways to finish my homework