The Online Learning Academic Achievement of Chinese Students during the COVID-19 Pandemic: the Role of Self-Regulated Learning and Academic Entitlement

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ARTICLE INFO	ABSTRACT
Article History: Received 16.01.2021 Received in revised form 17.05.2021 Accepted 08.06.2021 Available online 25.07.2021 Article Type: Research Article	In the spring semester of 2020, all Chinese higher education institutions delivered courses online across the nation in response to the COVID-19. This study explores Chinese college students' self-regulated learning, academic entitlement, and academic achievement during the transitioning from face-to-face to online learning environments during this special time. Structure equation modeling was conducted, and results indicate that academic entitlement associates with students' online learning academic achievement. Whereas self-regulated learning does not relate to academic achievement in the online learning setting. Additionally, academic entitlement is marginally associated with academic achievement only among male students, while self-regulated learning is not a significant predictor for both genders. However, self-regulated learning is marginally linked with higher academic achievement among students who do not have previous online learning experiences but not among those who took online courses before. Keywords:[^2] Self-regulated learning, academic entitlement, academic achievement, online learning

[^2]: Keywords line

1. Introduction

Online learning has been integrated but often used as a supplement to in-person teaching in universities in China (Sun et al., 2017; Tao et al., 2020). In response to the COVID-19 pandemic, Chinese higher education institutions moved to remote instruction during the spring semester of 2020. This was the first time that college courses were completely delivered online, and it was also the first time that a majority of Chinese college students took online courses formally. However, when learning online, students may face various challenges compared to learning in face-to-face courses. Furthermore, being quarantined at home while taking online courses, they would receive a feeling of isolation, which is identified as a major challenge for online learners (Rao et al., 2011). Although distance learning empowers students with more autonomy as to juggle their studies with other priorities, structure their learning process, and manage their time (Broadbent, 2017), online learning environments produce challenges associate with help-seeking and support among students with their instructors and peers (Kizilcec et al., 2017; Moore & Kearsley, 2005), and they need to be independent and self-regulated when studying online (Cho et al., 2010). Some researchers even noted that online learning would

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lead to low levels of cognition and dispositions for learning (Spitzer, 2012), fewer responsibilities, but stronger academic entitlement (Serdyukov, 2015). Therefore, it is important to understand online learners' experiences so as to support this learner group.

According to Rosenthal (2013), one of the major challenges in online education is not a technology issue but the lack of a solid research-based theoretical framework to support high-quality online learning. As a result, this study investigates Chinese college students' self-regulated learning, academic entitlement, and academic achievement during the transition from face-to-face to online learning environments, which has been less investigated. This empirical study is expected to contribute to the literature in an effort to elucidate the effect of self-regulated learning and academic achievement on students' academic achievement in online settings. Additionally, it is also hoped that this study would help Chinese higher education professionals to better understand Chinese college students' online learning experiences in order to provide corresponding support to improve distance education in China.

1.1. Literature Review

1.1.1. Self-Regulated Learning. Self-regulated learning is defined as "the self-directive processes and self-beliefs that enable learners to transform their mental abilities into an academic performance skill" (Zimmerman, 2008, p. 166). Self-regulated learning theory stemmed from cognitive psychology, with its origins backing to the social-cognitive learning theory of Albert Bandura. Bandura (1986) posited that human functioning involves a dynamic interplay among personal, behavioral, and environmental influences. In the conception of triadic reciprocality, personal variables such as cognitions and affects, behaviors, and environmental variables interact and influence one another (Bandura, 1986). That is, self-regulated learning is a reciprocal interaction of personal, environmental, and behavioral factors. To be specific, personal factors include individual self-efficacy, goal orientation, and metacognition. Environmental factors include instruction, peer learning, and help-seeking in an online learning context, while behavioral factor focuses on learning performance (Schraw et al., 2006). Scholars stated that self-regulated learning, as an active constructive process, involves goal-orientation, self-efficacy, self-control, motivation, cognitive strategy, and metacognitive self-regulation (Pintrich & Zusho, 2002). Therefore, self-regulated learners are usually self-motivated, using metacognitive learning strategies frequently, and report a high-level academic performance (Zimmerman & Martinez-Pons, 1986).

Furthermore, self-regulated learning requires the learner's continuous adjustment of cognitive activities and processes to adapt to a specific learning situation (Garcia & Pintrich,1991). In other words, self-regulated learning is indicated as "highly context-dependent" (Zimmerman & Schunk, 2001, p.125). Compared with face-to-face course settings, the online learning context is more challenging in interacting with instructors and peers, as well as seeking immediate support, which demands higher levels of self-regulation (Cho et al., 2010). A lack of real-time communication with the instructors, along with the physical distance from school resources, may create academic challenges and emotional isolation (Bowers & Kumar, 2015). Meanwhile, being empowered with more autonomy, students are required to be independent and self-regulated in online learning environments in order to keep themselves cognitively engaged and motivated (McMahon & Oliver, 2001). A positive correlation between self-regulated learning and students' academic achievement was found (Puzziferro, 2008; Zimmerman & Schunk, 2001). However, if the self-regulated strategy consumes too many psychological resources, academic achievement will decrease (Li et al., 2011). While self-regulated learning is critical to success in one's future career, there remains a paucity of research into the effects of college students' academic entitlement on their motivation and metacognitive learning strategies. Thus, this study explores the influence of academic entitlement and self-regulated learning, indicated by academic goal orientations, self-efficacy, metacognitive self-regulation (Panadero, 2017, Zimmerman & Martinez-Pons, 1986), on student's academic achievement in an online learning context.

Academic Goal Orientations. Academic goal orientation refers to an individual's beliefs that reflect the reasons or purpose why they approach and engage in certain academic tasks (Eccles & Wigfield, 2002; Midgley et al., 2001; Pintrich, 2000). These goals provide meaning for students' efforts, connecting and adjusting their thoughts, motivation, emotions, and behaviors in their learning process (Midgley et al., 2001). Previous studies indicated that academic goal orientations have a significant relationship with students' academic achievement, adjustment, well-being, and engagement in their academic work (Anderman, 2015; Aspinwall & Taylor, 1997).

Studies exploring the relationship between students' academic goal orientations and their self-regulated learning revealed that those goal orientations were one of the important components of motivational self-regulated learning (Duncan & McKeachie, 2005). Additionally, a significant positive effect was found between students' academic goal orientations and their academic achievement (Sins et al., 2008). Moreover, students' academic goal orientations also positively impact their perception of the quality of learning in online learning environments (Kickul & Kickul, 2006).

Self-Efficacy. Self-Efficacy is considered as "the beliefs in one's capabilities to organize and execute the courses of action required to manage the prospective situation" (Bandura, 1977, p. 2), and it influences students' behaviors and learning achievements (Bandura, 1986). Students who feel more efficacious about their learning are more adaptive and engaged in self-regulated learning, work harder, have better persistence, persevere in the face of adversity, be more optimistic, have lower anxiety, hence have better academic achievements (Schunk & Pajares, 2004). In return, self-efficacy can be influenced by academic goal orientations, achievement, and environmental inputs such as feedback from the instructors and social comparisons with peers (Schunk & Usher, 2012). In other words, self-efficacy is contextualized to the activity and environment. Therefore, students' self-efficacy in online learning environments is different compared with their self-efficacy in face-to-face classes (Cho et al., 2010; Sun & Rueda, 2012). Specifically, self-efficacy can influence students' learning, achievement, motivation, and self-regulation in face-to-face settings (Schunk & Pajares, 2009; Schunk & Usher, 2012). However, studies have shown inconsistent results with the effect of self-efficacy on students' academic achievement in online learning environments. Some studies indicated that students with higher self-efficacy often have better academic online learning achievements (Joo et al., 2000; Wang et al., 2013). Whereas others argued that self-efficacy is not a strong predictor of academic achievement when students are taking online courses (DeTure, 2004; Puzziferro, 2008).

Metacognitive Self-Regulation. Metacognition was first defined by Flavell (1976) as "one's knowledge concerning one's own cognitive processes and products" (p. 232). In other words, metacognition refers to the awareness, knowledge, and control of cognition. Compared with cognition that focuses on learning skills and strategies, metacognitive self-regulation lies with the control and self-regulation aspects of metacognition (Pintrich, 1991). According to Kitsantas and Cleary (2016), metacognitive self-regulation includes planning, self-monitoring, and self-evaluating. Goal setting is an important aspect of planning activity for metacognitive self-regulation. Self-efficacy also predicts metacognitive self-regulation (Pajares, 2008). Additionally, metacognitive self-regulation can positively influence academic achievement as the awareness of self-monitoring of one's thinking can help develop understanding and problem solving (Rickey & Stacy, 2000). Therefore, metacognitive self-regulation is a significant component in the self-regulated learning construct (Baird & White, 1996), and it is closely related to self-efficacy, goal setting, and learning achievement. In learning environments, metacognitive self-regulation is a critical factor in motivating and engaging students on the ground that metacognition involves consciousness, monitoring, and control of an individual's learning. Scholars further noted that metacognition self-regulation could improve students' motivation and engagement in online learning environments (Ackerman et al., 2016), enhance students' confidence and coping strategies of performance (Bjork et al., 2013), as well as contributing to online learning interest and learning persistency (Tsai et al., 2018).

1.1.2.Academic Entitlement. Academic entitlement refers to the tendency that students feel entitled to special treatment (e.g., higher scores, extra credit, positive feedback, bending the rules for them, permission to turn in work late, immediate access to instructors or TA) regardless of the quality of their work, the actual progress they make, or the amount of effort they give (Kopp et al., 2011; Reinhardt, 2012). Some researchers stated that the current generation college students have higher levels of entitlement and incivility than previous generations (Chowning & Campbell, 2009; Kopp et al., 2011). It has been a common phenomenon that university faculty are beleaguered for higher grades by students who have not worked hard enough but feel they deserve better scores (Greenberger, 2008). Academic entitlement is related to a host of problematic traits in higher education, including consumer mentality (Singleton-Jackson et al., 2011), absence of personal effort (Boswell, 2012), external attributions for academic failures (Achacoso, 2002), academic dishonesty (Chowning & Campbell, 2009; Greenberger, 2008), and incivility or offensive behaviors to their professors (Knepp, 2016). Students with high academic entitlement tend to externalize responsibility and are not expected to have great confidence in academic achievement through internalized efforts (Boswell, 2012; Chowning & Campbell,

2009). Therefore, these students usually have lower self-efficacy and lower academic goal orientations (Boswell, 2012; Frey, 2015), which would then lead to lower self-regulation and poor academic achievement.

According to previous studies, students are liable to possess a greater sense of academic entitlement in online learning environments as the teacher-student relationship, assignments, and expectations are different compared to that of attending in-person classes (Greenberger et al., 2008). In addition, educators have a consensus that academic entitlement can impair learning in online contexts (Correa, 2010; Dziuban et al., 2007). However, limited study has been conducted to explore students' academic entitlement in online learning environments. Thus, it remains unclear regarding how and to which extent academic entitlement can influence students' academic achievement in online learning environments (Hazel et al., 2014).

1.1.3. The Current Study. The interaction between self-regulated learning and academic entitlement is important and would provide important guidance for interventions to enhance students' academic performance (McLellan & Jackson, 2017). However, mixed findings emerged from previous studies. For example, Achacoso (2002) divided academic entitlement into academic entitlement beliefs and academic entitlement actions. Achacoso (2002) further noted that academic entitlement beliefs are negatively related to some self-regulation strategies, whereas academic entitlement actions are positively related to self-regulation strategies. Kopp et al. (2011) found a positive relationship between academic entitlement and external regulation (actions are directed exclusively by rewards and punishment). However, McLellan and Jackson's (2017) research indicated that self-regulated learning is negatively related to academic entitlement. Thus, inconsistent results from previous studies and the potential short-circuit influence of academic entitlement on both self-regulation and academic achievement in higher educational settings call for more systematic study.

Further, neither academic entitlement's interfere with student learning nor the relation between the two constructs in the online context has been investigated. Both self-regulated learning and academic entitlement would influence students' successful learning. That is, skillful self-regulated learners usually have high academic performance, while students with high academic entitlement report low GPAs (Frey, 2015; Thibodeaux et al., 2017). There remains a paucity of studies, which examined self-regulated learning and academic entitlement on students' academic achievement, especially in the context of online learning. It is unknown whether self-regulated learning and academic entitlement are related to academic achievement in additive (cumulative) or overlapping (redundant) ways. Understanding this effect is significant as it would afford valuable information regarding the unique contribution of a particular variable and better understand the relative importance of self-regulated learning or academic entitlement in predicting students' academic achievement. Therefore, the purpose of this study is to explore Chinese college students' self-regulated learning, academic entitlement, and academic achievement during the transition from face-to-face to online learning environments. Research questions include:

1. Does self-regulated learning influence students' academic achievement in online learning environments after controlling the impact of academic entitlement?
2. Does academic entitlement influence students' academic achievement in online learning environments after controlling the impact of self-regulated learning?
3. Do the impact of self-regulated learning and academic entitlement on academic achievement differ in male and female students?
4. Do the impact of self-regulated learning and academic entitlement on academic achievement differ in students with previous online learning experiences and those without?

2. Methodology

2.1. Participants and Procedure

The present study examined an entire convenience sample of 395 college students at two large universities in China with 332 usable responses (usable rate equals 84%). Among them, 106 (31.9%) were male, 222 (66.9%) were female, and 4 (1.2%) did not report their gender. Additionally, 177 (53.3%) reported that they had an online learning experience before, while 150 (45.2%) identified themselves as new online learners, and 5 (1.5%) did not report their previous learning experiences.

The sample was collected in the spring semester of 2020 during the COVID-19 pandemic. Students were invited to participate in this study through a third party (the faculty members as gatekeepers) who work at two four-year research universities in Northeast and Southeast China. The survey was distributed through emails. Students took approximately 10-15 minutes to complete the anonymous and voluntary survey. No personal information was identified, and this study was approved by the Institutional Review Board (IRB).

2.2. Data Collection Instruments

The survey packet consisted of a brief demographic questionnaire, Achievement Goal Questionnaire (AGQ) (Elliot & McGregor, 2001), Self-Efficacy for Learning and Performance subscale from Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, 1991), Metacognitive Self-Regulation subscale from MSLQ (Pintrich, 1991), and Academic Entitlement Questionnaire (AEQ) (Kopp et al., 2011).

2.2.1 Achievement Goal Questionnaire (AGQ)

The Achievement Goal Questionnaire (AGQ) (Elliot & McGregor, 2001) was used to assess students' mastery approach, mastery avoidance, performance approach, and performance-avoidance goal orientations. The AGQ is a 12-item 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Example question "I desire to completely master the material presented in this class"). Higher scores indicate higher levels of achievement goal orientations. This study modified the 5-point Likert scale to a 7-point Likert scale to keep consistent with other questionnaires. AGQ (Elliot & McGregor, 2001) is with original internal consistency reliability Cronbach's alpha of .84, .88, .92, and .94 for four subscales and adequate reliabilities with the current sample (Cronbach's alpha of the four orientations were 0.87, 0.89, 0.92, and 0.83, respectively among subscales), indicating sufficient reliability of the scale.

2.2.2 Self-efficacy for learning and performance subscale from MSLQ

The Self-efficacy for learning and performance subscale (8 items) (Example question "I believe I will receive an excellent grade in this class") was derived from Pintrich's (1991) Motivated Strategies for Learning Questionnaire (MSLQ) with a 7-point Likert scale from 1 (not at all true of me) to 7 (very true of me). The original internal consistency reliability of Cronbach's alpha was .93. The Cronbach's alpha with the current sample was .90, indicating adequate reliability of the measure.

2.2.3 Metacognitive self-regulation subscale from MSLQ

The metacognitive self-regulation subscale (12 items) (Example question "I ask myself questions to make sure I understand the material I have been studying in this class") was also derived from Pintrich's (1991) Motivated Strategies for Learning Questionnaire (MSLQ) with a 7-point Likert scale from 1 (not at all true of me) to 7 (very true of me). The original internal consistency reliability of Cronbach's alpha was .79, respectively. The Cronbach's alpha with the current sample was .82, indicating adequate reliability of the measure.

2.2.4 Academic entitlement was evaluated using the Academic Entitlement Questionnaire (AEQ)

The Academic entitlement was evaluated using the Academic Entitlement Questionnaire (AEQ) (Kopp et al., 2011). The AEQ is an 8-item 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree) (Example question "If I don't do well on a test, the professor should make tests easier or curve the grades"). The original internal consistency reliability Cronbach's alpha was reported as 0.81 and 0.84 for two student samples (Kopp et al., 2011). The Cronbach's alpha with the present sample was .89, indicating the scores measured were reliable.

Finally, academic achievement was measured using students' final grades of an online compulsory English course.

2.3. Analysis of Data

The original items were in English and translated into Chinese. To guarantee the validity of the Chinese version of the measure, a standard translation and back-translation procedure was used (Hambleton & Patsula, 1998). Descriptive statistics and correlations among all study variables were conducted in SPSS (Version 27.0). To answer the first and second research questions, the impact of self-regulated learning and academic entitlement on students' academic achievement in online learning environments, Path Analysis of Structural Equation Model was fitted in AMOS (Arbuckle, 2012). Full information maximum likelihood

estimation was used to handle missing data. Latent variables for self-regulated learning, using scale scores for goal orientation, academic self-efficacy, and metacognitive self-regulation (values of rs ranged from .41 to .63, ps < .001). The metacognitive self-regulation subscale set the metric for the latent variable, self-regulated learning. Model fits were assessed by the χ^2 statistics, Comparative Fit Index (CFI), and root mean square error of approximation (RMSEA). A good model fit is indicated by the p-value of χ^2 > 0.05, CFI > 0.90, RMSEA < 0.08 (Kline, 2015).

To answer the 3rd research question, whether the impact of self-regulated learning and academic entitlement on students' academic achievement differ in male and female students, separate path analyses were conducted for male and female samples. Similarly, to answer the 4th research question, separate analyses were conducted for students with and without previous online learning experience.

3. Findings

Descriptive statistics and correlations among all study variables are presented in Table 1. Goal orientation, self-efficacy, and metacognitive self-regulation are positively correlated (rs ranged from .41 to .63, ps < .001). Academic entitlement and academic achievement are negatively correlated (r = -.15, p < .05). It is worth mentioning that academic entitlement was not significantly correlated with goal orientation, self-efficacy, and metacognitive self-regulation. Male students reported a lower level of metacognitive self-regulation and academic entitlement but with a higher level of academic achievement than female students. Students who had previous online learning experiences reported high self-efficacy.

Table 1. *Correlation and Descriptive Statistics*

	1	2	3	4	5	6	7	8
1. Gender	-							
2. Age	.17**	-						
3. Previous online learning	.03	-.01	-					
4. Goal orientation	-.05	-.10	.04	-				
5. Self-efficacy	-.07	.03	.12*	.41***	-			
6. Metacognitive self-regulation	-.14**	.01	-.06	.54***	.63***	-		
7. Academic entitlement	-.20***	-.12*	.03	.08	.04	.08	-	
8. Academic achievement	.43***	.01	.02	.04	.03	-.02	-.15*	-
M (SD)/%	66.9%	19.72 (.96)	54.1%	5.13 (.86)	4.74 (.95)	4.85 (.74)	3.20 (1.13)	3.49 (.70)

Note. Gender was coded as 0 = Female and 1 = Male; *p* < .05; **p* < .01; ***p* < .001

Figure 1 shows the results of self-regulated learning and academic entitlement on academic achievement. The standardized path coefficients are presented. The model is a good fit to the data, χ^2 (5) = 4.263, p < .005; χ^2/df = .85; Comparative Fit Index (CFI) = 1.00; Root Mean Square Error of Approximation (RMSEA) = .00. Consistent with expectations, academic entitlement (B = -.09, SE = .04, p < .05) predicted academic achievement. In other words, the lower level of academic entitlement, the better academic achievement, whereas the higher level of academic entitlement, the worse academic achievement. No significant associations were found between self-regulated learning and academic achievement.

Next, to examine whether the effect of self-regulated learning and academic entitlement on academic achievement differ in males and females, separate path analyses were conducted. Results reveal that academic entitlement is marginally associated with lower academic achievement among male students (B = -.13, SE = .07, p < .10) but not female students. Self-regulated learning is not a significant predictor for either gender. Similar analyses were conducted for participants who have had online learning experience or not, and the result indicates that self-regulated learning is marginally associated with higher academic achievement among students who had no previous online learning experience (B = 22, SE = .13, p < .10) but not for the student who had a previous online learning experience. Finally, academic entitlement is not a significant predictor.
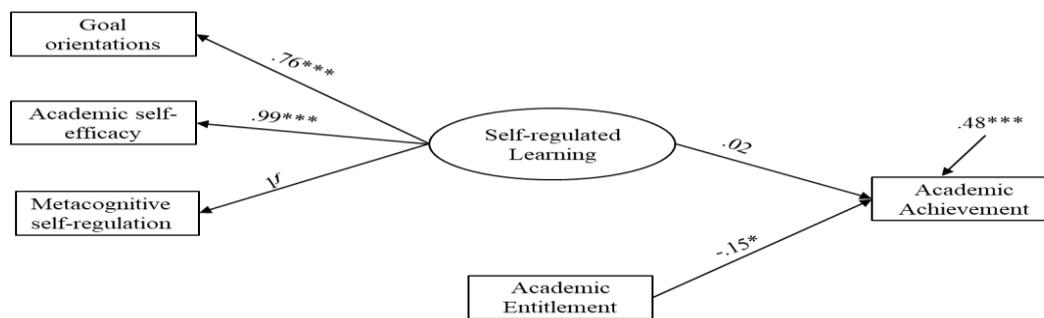
Note. f = fixed path; Covariates were included in the model: gender, age, and previous online learning experience (not shown). Standardized coefficients are provided. *p < .05

Figure 1. *Exanimation of the association of self-regulated learning and academic entitlement on academic achievement.*

4. Conclusion and Discussion

The current study examines self-regulated learning, academic entitlement, and academic achievement among Chinese college students who took formal online courses during the COVID-19 pandemic for the first time. The results reveal that academic entitlement is associated with academic achievement. This finding aligns with previous conclusions that academic entitlement is negatively associated with student learning due to its instrumental focus (e.g., Kopp et al., 2011; Page & Alexitch, 2003). Additionally, results note that academic entitlement is marginally linked to lower academic achievement only among male students, which argues with Blincoe and Garris' (2017) statement that female students often report higher levels of academic entitlement. Meanwhile, this finding supports Ciani and colleagues' (2008) results that male students express higher levels of academic entitlement, and that relationship has not changed over time.

Additionally, results show that self-regulated learning is not a significant predictor of academic achievement. This finding echoes with Broadbent and Poon's (2015) conclusions that the effect of self-regulated learning on students' academic achievement in face-to-face settings appears to generalize to the online context, nevertheless, the effects become weaker, less effective, and unexplored factors may be more important in online learning environments. Finally, results indicate that self-regulated learning is marginally associated with higher academic achievement among students who do not previously take online courses but not among those who have a previous online learning experience. In other words, having online learning experiences would eliminate the effect of self-regulated learning on academic achievement. That is, experienced online learners' self-regulation has less influence on academic achievement.

Based on the findings, three aspects are highlighted to improve students' online learning achievement, including mitigating academic entitlement, developing an online learning experience, and supporting self-regulated learning. Researchers proposed approaches to abate academic entitlement on college students. For example, Zhu et al. (2019) used role theory and message framing to impact students' grade negotiation behavior in face-to-face course settings. It would be applicable in online learning environments, as well. Specifically, role theory aims to influence students' behavior by changing their perceived roles. The academic entitlement of students who view their roles as academic trainees would be different compared to those who view themselves as paying customers (Zhu & Anagondahalli, 2017). Singleton-Jackson et al. (2010) stated that only when students' cognitive shift from consumers to scholars occurs, then higher education will not be a business. Meanwhile, message framing impacts student enactment of roles as customers or students (Zhu et al., 2019). Therefore, students' academic entitlement can be mitigated by the role theory and framing of education.

The online learning experience is another crucial factor that influences students' academic achievement, especially for Chinese college students in this study, as 45.2% of them have not had previous online learning experiences. Therefore, it is important for schools to make online learning available and accessible to more college students. Additionally, Chinese higher education institutions should also develop online learning management systems and provide technical assistance to increase students' online learning experiences and course engagement. Self-regulated learning is correlated with online learning achievement for inexperienced online learners. Hence, it is important to improve learning achievement through supporting self-regulated learning for online course beginners. Self-regulated learning can also be improved through various strategies

such as goal setting, strategic planning, self-efficacy, self-monitoring, self-evaluation, and adaptive inferences (Kitsantas & Cleary, 2016). Therefore, involving these factors would help students adjust their learning strategies to improve their academic achievement for online learning.

5. Limitations

Several limitations exist in the present study. First, 91.3% of the participants were freshmen and sophomores. 31.9% of participants were male, and 66.9% were female. There might be potential validity issues for generalization to the whole college student population. Future studies should take into consideration more junior and senior college students. Second, this study recruited participants from universities located in a well-developed province of China. Future studies should be conducted in less developed provinces so as to indicate more comprehensive conclusions. Additionally, this study was conducted during the COVID-19 pandemic period. All universities in China had to switch to online learning with no exception. Therefore, students may lack sufficient readiness and willingness to participate in online learning, which would impact their academic entitlement and self-efficacy, especially when the pandemic itself has resulted in the sense of disconnectedness and increased isolation in online learning environments. Hence, we suggest more post-pandemic studies. Last, because it was the first time that nationwide online teaching was implemented, some technical issues remain in terms of using a learning management system, which may additionally influence students' online learning experiences. They probably need more time to develop their adaptiveness and self-regulated skills in such an online learning context. Therefore, more empirical-based and longitudinal studies are needed.

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