EMPOWERING ONLINE LEARNERS: THE ROLE OF VOLITIONAL COMPETENCE, GRIT, AND METACOGNITIVE AWARENESS IN ONLINE LEARNING

Alvin B. Barcelona, Philippine Normal University
Sam Rhoy B. Dela Cruz, Far Eastern University Manila

ABSTRACT

This explanatory sequential mixed-methods study explored the role of cognitive and noncognitive constructs, namely volitional competence, grit and metacognitive awareness in the academic achievement among online higher education learners in the Philippines. The first phase of the study involved the administration of the survey to 403 learners. Data from individual interviews and focus-group discussions were used in the second phase to illuminate further the initial quantitative results. The findings show that volitional competence, grit, and metacognitive awareness are significant predictors of academic achievement of online learners based on the generated regression model [F (3,313) = 8.4, p < 0.001, R ^{2}= 0.475]. Also, both the quantitative and qualitative data reveal areas for improvement such as learners' lack of confidence to succeed in their academic tasks online and uncontrollable distractions at home for volitional competence, sustaining their interest and focus for grit, and awareness about what constitutes relevant knowledge with respect to certain tasks, assessment of their thinking, and simplification of complex tasks to manageable forms for metacognitive awareness. Implications of these findings necessitate schools to streamline their curricula, revisit learning activities provided to online learners, and form a stronger linkage between parents and teachers to empower online learners and improve their academic achievement.

Keywords: *volitional competence, grit, metacognitive awareness, academic achievement, online learners*

INTRODUCTION

Major events in the world provide a transition point for rapid, coerced innovation (Li & Lalani, 2020). The COVID-19 pandemic has placed distance education in the mainstream. Online distance education has become the continuity plan and a trend at present, with increased accessibility, greater inclusivity, and more sophistication, all made possible because of the flood of technological advancement. Educational institutions around the world now offer basic and higher education degrees and other online classes that reimagine how to obtain an education using a computer.

Moving beyond the traditional physical classroom in many parts of the globe, distance education will continue to persist after the pandemic and will provide further opportunities in the teaching and learning process. In addition, this pandemic has made it very clear that the dissemination of knowledge will not be bound by borders, companies, or even the smallest parts of society, including the education sector, which has challenges to

overcome. This is why there is a resurgence of empirical research exploring the factors that promote academic achievement and kindle successful learning processes in distance education.

Online learning was a completely new platform for most learners in the Philippines, especially when the pandemic started in March 2020. Schools had to put in place continuity plans immediately or else close, especially many private educational institutions (Adonis, 2020). Private institutions had to assure their stakeholders that distance education would still be as effective since face-to-face interaction was not allowed. Common assumptions in the distance learning environment implied that online classrooms require better time management, workload management, and work-life balance for the student.

The environment in distance education is driven largely by the learner's ability to manage their own academic responsibilities (Bawa, 2016). Online learning requires academic discipline, and if students are very dependent on the teachers' regulation in face-to-face classes, students might have a difficult time imposing discipline on themselves, resulting in difficulty in learning and even in doing the required activities. This online environment can even be intimidating for the learners if they are not used to regulating themselves and constructing knowledge themselves. Students who lack initiative and the ability to construct knowledge on their own may experience demotivation and subsequently feel that they are just going with the flow and are not making progress in their classes.

Because of this, investigating cognitive and noncognitive traits that may have an impact on the academic achievement of online learners is imperative. Volition, a noncognitive ability to focus on the task and shrug off distractions, has become an important area of relevance in educational research. It provides ways to deal with reduced motivation and negative emotions by applying action control and planning strategies (Deimann & Bastiaens, 2010). Duckworth et al. (2007) extensively investigated another noncognitive trait called grit. They observed that people possessing high levels of grit maintained their determination over long periods even if they experienced failures or stumbling blocks. In addition, a cognitive trait called metacognitive awareness adds to the predictors of high academic achievement, as supported in a study by Akbayir and Topcul (2021), when they studied 120 high school students to correlate metacognitive awareness and logical thinking to academic achievement.

The need to investigate the combined role of volitional competence, grit, and metacognitive awareness in academic achievement in online learning is of paramount importance. Positive school psychology and academic success are believed to be activated by self-regulation, control of negative emotions and excessive desires, and commitment to achieving goals. But these are not enough since persistence and consistency of effort are equally important to every learner. Diligence and a positive attitude towards any difficult academic situations should be in place as well. Also, schools are inclined to train every student to be aware of their own thinking and appreciate how they control their own thinking. Thus, the present study shows the need to explore how volitional competence, grit, and metacognitive awareness impact learning outcomes in online education.

The formula for success in online distance education is still subject to intensive investigation. With these challenges confronting the learners and the educational institutions in the implementation of online distance education, we investigated how the hypothesized factors of volitional competence, grit, and metacognitive awareness can possibly contribute to the academic achievement of undergraduate students. Specifically, we sought answers to the following research questions:

1. What is the level of volitional competence among the respondents in online distance education in terms of (a) action planning and (b) action control?
2. What is the level of grit among the respondents in online distance education in terms of (a) consistency of interest and (b) perseverance of effort?
3. What is the level of metacognitive awareness among respondents in online distance education in terms of (a) awareness of knowledge, (b) awareness of thinking, and (c) awareness of thinking skills?

4. Based on the regression analysis, which of these predictors significantly affect students' academic achievement in online learning?

Volitional Competence

Among the various learning strategies that help learners augment their experience in distance education setup, a volitional strategy can provide sustained motivation. Volition is defined as self-regulation to promote and direct oneself to accomplish a certain objective (Keller, 2010). Volition is present when students exert conscious effort to control their own desires and impulses during the learning process. Volition means that if a student exerts effort to control their willingness to learn, it will enable them to take the correct action even if there is a sudden obstacle. These are opportunities students get to monitor themselves and further allow them to assess their own academic performance.

Volition is very important in distance learning. An online learner may be confronted with so many adversities and distractions, such as family, job, environment, economic status, and physical and emotional stability, and as a result, may have decreased motivation. That is the main reason why volitional competence, such as controlling negative emotions caused by a heavy workload, is helpful in successful learning. Research literature about volitional competence has focused on the effects of volition on the performance of learners in school. A study by Novak et al. (2018) investigated 1,334 learners and their volition in different digital environments. They found that learner volition and intrinsic cognitive load were positive predictors of student performance in Science and Mathematics. This supports the study of Ucar and Kumtepe (2020), which investigated 122 online learners in a span of an 11-week semester. The results revealed statistically significant differences in academic achievement between the groups that applied volitional strategies compared to those that did not.

Grit

Grit is defined as the persistence and perseverance to achieve goals. It is the persistent, long-term quest to achieve goals despite setbacks and obstacles (Duckworth, 2014). The analysis of grit in relation to online learning is relatively new. One study showed that when grit is evident among online learners, they possess abilities to overcome obstacles, learn from their errors, show passion for learning, display self-control, and set high standards for themselves (Pappas, 2016). Grittier students are closely associated with being mastery and goal-oriented ones. They focus on acquiring knowledge and improving their growth mindset, which is the belief that cognitive capabilities are not fixed and can be improved through exerting the required effort and dedication (Dweck, 2018).

With grit, interest in learning is not connected with pleasure in terms of short-term gratification, but it is rather connected with making your goal meaningful (Perez, 2015). Learners, who have high levels of grit placed personal meaning to a long-term goal; they were able to demonstrate a passion to handle adversities and stumbling blocks during the process. The meaningful and engaging goals, handled with grit, provide sustenance to the learner's individual effort and vigor (Perez, 2015).

Grit, when fostered by the learners themselves, demands working purposefully towards a difficult objective and sustaining energy and interest over a long period of time in spite of any failures and stumbling blocks in the course of the learning process. This is why gritty learners employ stamina to keep themselves on track and commit to achieving their goals, in contrast to students who easily get bored and disappointed, and then give up exerting effort or employ alternative actions (Duckworth & Gross, 2014). The body of existing knowledge about grit and academic achievement shows that grit, especially perseverance of effort, was the strongest predictor of grades among the sample of 1,250 U.S. High School students (Morell et.al., 2021). Another study by Allen et.al., (2021) explained that nurturing perseverance of efforts in grit among learners would reap huge academic benefits.

Metacognitive Awareness

Another contributing factor to students' success in learning is metacognition, which is defined as thinking about thinking—a system that helps a learner appreciate and take control of their cognitive performance. It allows learners to oversee their own learning process. Going into the metacognitive phase means criticizing your own learning progress as if you are someone else observing it by becoming an audience for your own intellectual performance. This way, a learner becomes aware of how they learn and can provide

an evaluation of their needs, determine the best strategies for themselves, and even generate strategies that suit their learning process.

Some questions, such as "how do I learn best?" and "what kinds of things help me learn faster?" all focus metacognitive awareness. This can range from knowledge that assists students in assessing their own abilities to reflective questions on a specific process applied in different situations. Metacognition comprises the ability to think strategically to set objectives, solve problems, organize, and even evaluate ideas. (Veenman et al., 2006) When students have metacognitive awareness during their learning process, they can regulate and even improve their own learning outcomes (Barcelona et. al., 2023). Hence, fostering learners' metacognitive awareness can greatly contribute to success in online learning.

Empirical evidence demonstrates that metacognitive awareness positively empowers learners in making predictions, planning, monitoring, and evaluating their own cognitive activities, therefore, enhancing their own learning experiences (Özçakmak et al., 2021). They investigated the levels of metacognitive awareness of first-grade English language teachers and showed that those who had high levels of metacognitive awareness had high achievement in their courses. Therefore, metacognitive awareness is one of the crucial elements that should be nurtured in an online classroom because when subjects possess metacognitive awareness, they can determine which methods of their own learning are effective or not, and they are expected to be successful in the task they encountered.

Theoretical Framework of the Study

This study underscores the intertwined roles of cognitive and noncognitive constructs that are hypothesized to have a causal relationship with academic achievement. Different theoretical models provide the necessary underpinnings of the present inquiry. Volitional competence was articulated clearly in the ARCS-V model by Nakajima et al. (2013) and Keller (2010) where motivated students need to take action to achieve their educational goals. Grit, a noncognitive trait, was a compound factor of passion and perseverance based on Grit Theory by Duckworth et al. (2007). Metacognitive awareness elucidates how humans regulate and control their own thought processes based on Flavell's Metacognitive Theory. All these theories illuminate how learning can be optimized by improving one's volitional competence, grit, and metacognitive awareness, but previously that have been discussed in isolation. Hence, our present study concerns how these three interrelated constructs are seen to be predictors of online academic achievement among undergraduate students through a mixed-methods approach to research.

MATERIALS AND METHODS

Research Design

This study employed an explanatory-sequential, mixed-methods approach to research. According to Creswell (2012), this consists of collecting quantitative data first and then collecting qualitative data to help explain or elaborate on the quantitative results. This research design was used because it helped us to holistically capture the causal relationships of volitional competence, grit, and metacognitive awareness to the academic achievement of the respondents by taking into consideration the role of the qualitative data in explaining and enriching the regression model. Integrating both quantitative and qualitative data in a scientific inquiry fosters methodological flexibility through increasing the generalizability of the findings while empowering the participants by giving them voices in the study.

Sample and Sampling Technique

Table 1 presents the distribution of the sample of undergraduate learners across the colleges based on their specialization.

Table 1.
Distribution of Undergraduate Learners Based on their Specialization

College	Frequency	Percentage
Arts and Sciences (CAS)	60	14.25%
Business Administration (CBA)	60	15%
Education (COED)	57	14.25%
Health Sciences (CHS)	57	14.25%
Hospitality Management and Tourism (CHMT)	57	14.25%
Maritime Education (CME)	57	14.25%
Mechanical Engineering (SME)	55	13.75%
Total:	403	100%

The research locale of this study was a private, nonsectarian institution in the School's Division of Bulacan, Region 3, in the Philippines. Table 1 summarizes the distribution of the participants based on their specialization. There were 60 students from the College of Business Administration (15%), 57 from the Arts and Sciences (14.25%), 57 from the College of Education (14.25%), 57 from the College of Health Sciences (14.25%), 57 from the College of Hospitality Management and Tourism (14.25%), 57 from the College of Maritime Education (14.25%), and 55 from the School of Mechanical Engineering (13.75%).

We employed a stratified sampling technique when identifying the respondents to ensure the representativeness of the population across the existing colleges of the participating tertiary school. The respondents attended synchronous and asynchronous learning activities using different instructional platforms. Formative and summative assessments were provided to students using the school's learning management system. Teachers employed a great sense of flexibility and consideration, with minimal supervision. In this context, the student-respondents assumed independence and full responsibility for their own learning in the comfort of their own homes.

While 403 learners participated in the quantitative phase of data gathering, 15 learners were interviewed individually and through small groups to illuminate the quantitative findings of the study. The interviewees were selected purposively based on the patterns of responses in the survey data. We secured informed consent and observed ethical considerations to protect the anonymity and welfare of the respondents.

Research Instruments

This mixed-methods study made use of different instruments in analyzing the volitional competence, grit, and metacognitive awareness of the students. This study made use of an online survey in a Likert scale format. This is appropriate because it can be used as a psychological measurement device to gauge attitudes, values, and opinions of a group of respondents (Barcelona et al., 2022).

In measuring the volitional competence of the participants of the study, we used the scale developed by Keller et al. (2020) from Florida State University. The items in the Volition Scale are in declarative statements and are formatted into a five-point Likert Scale. The participants scored the items on the Likert Scale, ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). The convergent validity and reliability measures of the scale were proven to be acceptable.

Another instrument that we used in the study was the Grit Scale (Duckworth et.al., 2007), which measures the extent to which individuals are able to maintain focus and interest and persevere in obtaining long-term goals. The Grit Scale had 12 declarative sentences where learners rated each sentence on a five-point Likert scale from *Strongly Disagree* (1) to *Strongly Agree* (5). Both the validity and reliability measures were within the acceptable range. To measure the metacognitive awareness of the learners, we developed a 20-item scale that underwent content validation. This is because we were not able to locate the appropriate scale regarding the context and nature of the respondents. The instrument aimed to measure the dimensions of metacognitive awareness, which are awareness of knowledge, awareness of thinking, and awareness of their thinking strategies. The learners rated each sentence on a 5-point Likert scale from *Strongly Disagree* (1) to *Strongly Agree* (5). Also, the academic achievement of the respondents was measured using their grade-point average for the previous semester. The grade profile was requested from the registrar's office of the college. Ethical considerations were respected to safeguard the respondents' rights for confidentiality and to protect their welfare in the conduct of the study.

RESULTS

The following tables describe the volitional competence, grit, and metacognitive awareness of the respondents.

Volitional Competence

Table 2 summarizes the volitional planning of the respondents.

The respondents strongly agreed that they set up goals for their learning (4.54), their commitment to achieving their goals in their class was strong relative to the goals in their other classes (4.45), and they were prepared to work hard to achieve their goals no matter what their other classes required (4.41). Also, the respondents agreed that they were

Table 2.
Learners' Volitional Planning in Online Learning

Statements	N	Mean	SD	Verbal Interpretation
1. My commitment to achieve the goals in this class was strong relative to the goals in my other classes.	403	4.45	0.75	Strongly Agree
2. I set up goals for my learning.	403	4.54	0.67	Strongly Agree
3. I was confident that I could avoid obstacles while doing my work.	403	3.33	0.89	Neutral
4. I was prepared to work hard to achieve my goals no matter what my other classes required.	403	4.41	0.75	Strongly Agree
5. I was able to prepare a study plan that listed concrete tasks.	403	4.07	0.88	Agree
Overall Mean:	403	4.16	0.60	High

able to prepare a study plan that listed concrete tasks (4.07).

The results of the quantitative data relate to the statements retrieved from the focus group discussions we conducted. Student 2 (S2) highlighted the importance of setting up their own goals in learning and their strong commitment to achieving their class goals: "With my goals predetermined, I am more aware of the things that need to be accomplished and the things that I need to learn from my subjects." The preparation of study plans was emphasized by the learners, stating that study plans are a huge help in reminding them of their own pace in learning, although some of them shared their lack of confidence in overcoming hurdles in completing their work online because they do not have enough support at home.

Table 3 shows the volitional control of the learners.

Based on the quantitative data, the respondents strongly agreed that they added more effort to stay on task if their focus on their goal in this class began to decline (4.29) and when their motivation decreased, they were able to think of things to do to build it back up again (4.28). Further, the respondents agreed that they kept their feelings under control while working to complete the class (4.13), they were able to avoid being distracted by competing goals (4.02),. They also agreed they were able to know when to stop looking for more information to prepare for an exam (4.11), they did not let social pressure affect their performance (4.06), and they anticipated personal or social events that might cause them to get behind (3.89). On the other hand, the respondents were neutral that they were able to create a setting free of uncontrollable distractions (3.33)

Table 3.
Learners' Volitional Control in Online Learning

Statements	N	Mean	SD	Verbal Interpretation
1. I kept my feelings under control while working to complete this class.	403	4.13	0.86	Agree
2. I added more effort to stay on task if my focus on my goal in this class began to decline.	403	4.29	0.75	Strongly Agree
3. I was able to avoid being distracted by competing goals.	403	4.02	0.90	Agree
4. I was able to create a setting free of uncontrollable distractions.	403	3.33	0.90	Neutral
5. I was able to know when to stop looking for more information to prepare for an exam.	403	4.11	0.82	Agree
6. I didn't let social pressure affect my performance.	403	4.06	0.92	Agree
7. I anticipated personal or social events that might cause me to get behind.	403	3.89	0.87	Agree
8. When my motivation decreased, I was able to think of things to do to build it back up again.	403	4.28	0.86	Strongly Agree
Overall Mean:	403	4.00	0.64	High

The qualitative data gathered from the respondents are aligned with the quantitative results presented above. They were able to share their experiences when it comes to how they manage themselves in their study habits in relation to their volitional control as one participant said, "I sometimes let myself be distracted from other things for a long period of time because of the flexibility of online learning. Our home is a place where there is too much distraction" Student 4 (S4). With their goals predetermined and tasks plotted in their schedule, including those that are meant for unexpected events, they can manage themselves in achieving their goals in their courses while expressing worries about various distractions at home.

Table 4 summarizes the volitional competence of the learners in terms of Volitional Planning and Volitional Control.

Table 4.
Overall Volitional Competence of Students in Online Learning

Volitional Dimension	Mean	SD	Verbal Interpretation
Volitional Planning	4.16	0.60	High
Volitional Control	4.00	0.64	High
Overall Mean:	4.08	0.62	High

Both measures reported a general agreement to the indicators presented wherein the Volitional Planning obtained a mean score of   while Volitional Control had a mean of . The overall volitional competence of the learners was which is considered high.

Grit

Table 5 shows the grit measurement of students in terms of consistency of interest.

Table 5 tackles the grit measurement of the respondents in terms of consistency of interest. The learners agreed that new ideas and projects do not distract them from previous ones (3.45), they have seldom been obsessed with a certain idea or project for a short time and later lost interest (3.45), they do not set a goal and later choose to pursue a different one (3.41). On the other hand, learners' responses were considered neutral when asked if their interests do not change from year to year (3.22) and do not have difficulty maintaining their focus on projects that take more than a few months to complete (3.12).

Table 5.
Consistency of Interest Among Online Learners

Statements	N	Mean	SD	Verbal Interpretation
New ideas and projects do not distract me from previous ones.	403	3.45	1.05	Agree
I do not set a goal and later choose to pursue a different one.	403	3.41	1.11	Agree
I do not have difficulty maintaining my focus on projects that take more than a few months to complete.	403	3.12	1.18	Neutral
My interests do not change from year to year.	403	3.22	1.15	Neutral
I have seldom been obsessed with a certain idea or project for a short time and later lost interest.	403	3.45	0.83	Agree
I do not become interested in new pursuits every few months.	403	3.10	1.01	Neutral
Overall Mean:	403	3.29	1.12	Moderate

The responses above were also supported by different statements from the learner respondents. They tackled their strong mindset on what they must accomplish in school, but not all of them had the same attitude in dealing with their school endeavors. Student 9 (S9) shared, "There are times I showed interest to complete some tasks, but there were moments I failed to sustain it," while Student 1 (S1) said, "Working on a project that takes a longer period of time to complete makes me lose my focus." The statements provided anecdotes that when it comes to their strength and consistency of academic interest, some learners were struggling to maintain them. Though they can deal with multiple tasks, it requires them to sustain their focus and interest.

Table 6 presents the mean and standard deviation on the grit measurement of students in terms of effort and perseverance.

The respondents strongly agreed that they consider themselves hardworking (4.30), they finish whatever they begin (4.30), they are diligent and do not give up (4.30). They also agreed that setbacks do not discourage them (4.10), they overcome setbacks

Statements	N	Mean	SD	Verbal Interpretation
Setbacks don't discourage me. I don't give up easily.	403	4.10	0.90	Agree
I am a hard worker.	403	4.30	0.80	Strongly Agree
I finish whatever I begin.	403	4.30	0.80	Strongly Agree
I am diligent. I never give up.	403	4.30	0.80	Strongly Agree
I have overcome setbacks to conquer an important challenge.	403	4.00	0.80	Agree
I have achieved a goal that took years of work.	403	3.90	1.00	Agree
Overall Mean:	403	4.17	0.59	High

to conquer important challenges (4.00), and they have achieved goals that took years of work (3.90).

The data retrieved from the focus group discussion further explained how much grit the learners possessed. The statements of the respondents imply that learners are considered hard-working, diligent, and do not give up easily. Quoting Student 7(S7):

> *Even if there are some problems that arise along the way, for example, in the house where I am doing my online class, I do not give up. I always make sure that I finish what I started. It should be my motto in life.*

Further, since the respondents finish what they begin and do not give up easily, they also were able to achieve goals that took years to finish.

Table 7 summarizes the learner's overall grit levels.

Components of Grit	Mean	SD	Verbal Interpretation
Consistency of Interest	3.29	1.12	Moderate
Perseverance of Effort	4.17	0.59	High
Overall Mean:	3.73	0.99	High

The overall grit of the learners shows that they have a high level with.

3.3. Metacognitive Awareness

Table 8 presents the metacognitive awareness of students in terms of their awareness of knowledge.

Statements	N	Mean	SD	Verbal Interpretation
I am aware of the knowledge that I already know that will help me to do my tasks.	403	3.54	0.58	Agree
I am aware about the knowledge that I do not know yet that is relevant to my tasks.	403	3.30	0.66	Neutral
I tend to determine information that I need to know for me to do my tasks.	403	3.53	0.57	Strongly Agree
I tend to verify the correctness of the information at hand.	403	3.49	0.58	Strongly Agree
I can differentiate relevant information from what is not for me to complete my tasks.	403	3.36	0.6	Neutral
I tend to apply what I know with what I will learn to complete my tasks.	403	3.54	0.59	Agree
Overall Mean:	403	3.46	0.43	High

From the responses to these statements, learners strongly agree that they tend to determine the information that they need to do their tasks (3.53) and they tend to verify the correctness of the information at hand (3.49). The respondents also agreed that they are aware of the knowledge that they know already to complete their tasks (3.54).

The respondents can share their prior knowledge and their experiences when approaching tasks from their class. Student 11(S11) shared: "I relate my background knowledge to what we are studying for me to make sure that the information I received is accurate." On the other hand, some learners approach the tasks without taking into consideration their past experiences. This is especially true for some who are exploratory

and would like to deal with the circumstances and obstacles in a different light, "When dealing with paper works, I directly act on what has been instructed without considering what I learned from the past and its connection to my task. I just do it." Student 4 (S4).

Table 9 discusses the metacognition of learners in terms of their awareness of their own thinking.

Table 9.
Awareness of Thinking Among Online Learners

Statements:	N	Mean	SD	Verbal Interpretation
I am aware about the nature of the tasks given to me by my teachers.	403	3.45	0.62	Agree
I understand the kind of cognitive demand required of me to complete my task.	403	3.44	0.58	Agree
I am aware of my strengths and weaknesses as a learner.	403	3.59	0.61	Agree
I can assess whether the task is within my own capabilities as a student.	403	3.46	0.60	Agree
I tend to compare the problems / task at hand to the previous ones that I have accomplished successfully.	403	3.28	0.71	Neutral
I assess my own thinking by asking others if it is correct or not.	403	3.35	0.71	Neutral
I improve my own thinking for me to complete my tasks.	403	3.53	0.56	Agree
Overall Mean:	403	3.44	0.42	High

The learners agreed that they were aware of the nature of the tasks given to them by their teachers (3.45) and of their own strengths and weaknesses as learners (3.59). They also agreed that they understood the kind of cognitive demand required of them to complete their task (3.44), they can assess whether the task is within their own capabilities as a student (3.46), and they improve their own thinking for them to complete their tasks (3.53).

As further support to the data presented above, the participants in the FGD also gave additional statements in relation to their awareness of their own thinking, as mentioned by Student 13 (S13):

> *When the tasks given to us are familiar, I tend to finish them easily since I already know how to efficiently approach them. If I cannot understand the requirements of the task, I do verification through the help of my classmates and supplementary materials.*

However, some statements that were provided by the respondents contradict each other as they have differences in terms of their metacognitive awareness. As for them, the tasks given were approached according to how they successfully finished the previous ones, how they usually do their tasks, and how they find a way when facing difficulties in accomplishing the task.

Table 10.
Awareness of Thinking Strategies Among Online Learners

Statements	N	Mean	SD	Verbal Interpretation
I tend to apply different methods according to the learning area or topic at hand.	403	3.35	0.63	Neutral
I tend to simplify tasks and chunk them into smaller parts.	403	3.31	0.64	Neutral
I tend to think about alternative ways on how to accomplish the task easily.	403	3.48	0.61	Agree
I tend to follow a strict timeline for my pending tasks and schedules.	403	3.29	0.69	Neutral
I tend to practice when I know that the task at hand is difficult or unfamiliar to me.	403	3.43	0.62	Agree
I am aware of the thinking strategies that will work best with me.	403	3.47	0.62	Agree
I am aware if I need to adjust my thinking strategies for me to complete my tasks.	403	3.57	0.55	Agree
Overall Mean:	403	3.42	0.43	High

Table 10 discusses the metacognition of the learners in terms of their awareness of their thinking strategies.

The learners agreed that they tend to think about alternative ways to accomplish tasks easily (3.48) and to practice when the task at hand is difficult or unfamiliar (3.43). They also agreed that they are aware of the thinking strategies that work best for them (3.47) and if they need to adjust their thinking strategies for them to complete their tasks (3.57).

The learner respondents gave their further responses regarding their strategies for accomplishing their tasks. Still, it can be shown that their strategies differ from each other: "*I always do the same routine when doing my tasks because that is what I was used to doing every time, but there are times that I am forgetting to work on them because of other errands outside school,*" shared by Student 10 (S10). All in all, based on their responses in support of the quantitative data above, they work on their tasks depending on what needs to be done and what it requires from them, and they utilize different thinking strategies for each task.

Table 11 shows the descriptive summary of the metacognitive awareness of the students in terms of knowledge, thinking, and thinking strategies.

The learners reported high level in the awareness of knowledge with a computed mean of , high level of awareness of thinking with a mean of high level of awareness of thinking strategies with . The overall metacognitive awareness among online learners reveals to be high with

Table 12 discusses the multiple regression modeling predictors of academic achievement in online learning.

The overall regression model shows a good fit with $F_{(3.313)} = 8.4$, $p < 0.001$. The coefficient of determination $R^2 = 0.475$ reveals that 47.5% of the variation in the online academic achievement of learners can be accounted to the significant predictors in the model. The model also reveals that among the hypothesized predictors, metacognitive awareness ($p < 0.047$) grit ($p < 0.019$) and volitional competence ($p < 0.006$) significantly predict academic achievement of learners in online learning.

DISCUSSION

The regression model shows that metacognitive awareness, grit, and volitional competencies of learners can contribute positively to their academic performance in online learning First, linking metacognitive awareness with academic achievement in online learning corroborates the idea that students' ability to succeed in school entails some degree of self-reflection, self-strategy, and intentional mental processing. Awareness of knowledge, thinking, and thinking strategies is crucial among undergraduate learners in online learning because they need to be cognizant of the ways in which they can improve their learning outcomes even when home-schooled and they lack physical proximity to their teachers. Second, grit was proven to have a causal

Table 11.
Overall Metacognitive Awareness among Online Learners

Metacognitive Awareness	Mean	SD	Verbal Interpretation
Awareness of Knowledge	3.46	0.43	High
Awareness of Thinking	3.44	0.42	High
Awareness of Thinking Strategies	3.42	0.43	High
Overall:	3.44	0.39	High

Table 12.
Multiple Regression Modeling of Predictors of Academic Achievement in Online Learning

Model	R	R2	F	df1	df2	p
1	0.689	0.475	8.4	3	313	<0.001
Model Coefficients-Cognitive Engagement						
	Estimate		Standard Error		t	p
Intercept	2.230		0.176		12.70	<0.001
Metacognitive Awareness	0.127		0.064		1.99	0.047
Grit	−0.094		0.040		−2.37	0.019
Volitional Competence	−0.148		0.054		−2.76	0.006

link to academic achievement since online learners need to be more compassionate and perseverant in facing academic challenges brought about by the present pandemic. With grit, online learners demonstrate the consistency of interest to learn on their own and persevere to achieve intended learning goals. This is how grit can help online learners create personal and meaningful learning experiences in their virtual classrooms, which is most especially needed in this time of unforeseen change in education. Lastly, volitional competence can initiate positive online learning gains because learners need the skills of will and self-regulation to complete their academic tasks successfully. Setting up their academic goals and using greater effort to stay focused on their tasks is online learning since every learner needs to become self-reliant.

The collected and analyzed interview data substantiate the results presented in the regression model. A business administration student (S7) shared that being aware of whether they are meeting their academic goals helps them to improve their academic performance. This is seconded by a mechanical engineering student (S3) who shared that they considered several alternatives and strategies that worked in the past when solving a problem. Both underscored the value of metacognitive awareness in boosting their academic performance. Also, a maritime student (S14) stressed the importance of maintaining their interest to learn a lesson and a nursing student stated that managing distractions that obstruct their productivity helps them to improve their academic performance. These qualitative data from select respondents accentuate the link between girt, volitional competence, and academic performance.

CONCLUSIONS AND RECOMMENDATIONS

The present study contributes to the existing body of knowledge regarding the role of volitional competence, grit, and metacognitive awareness in the academic achievement of online learners. All these constructs were proven to be significant predictors of positive academic performance through the regression model. Also, while the tertiary learners were found to have high levels of these noncognitive traits in general, investigating both quantitative and qualitative data reveal that there are areas that schools need to focus on to empower online learners, such as students' lack of confidence to succeed in their academic tasks online and the effects of uncontrollable distractions at home. School curricula and online teachers should be more encouraging to increase learners' confidence to learn on their own online. This supports the study of Landrum (2020) where learners' confidence to learn online predicts both their satisfaction and perceived usefulness in online classes. Also, online teachers and parents at home should work harmoniously to ensure that the learners' home environment is free from significant distractions that can hamper their achievement. This has been pronounced in the existing literature where students who take online courses are exposed to many distractions and multitask at home while studying (Botros, 2020; Guijosa, 2019; Love, 2020). Through this, parents, teachers, and schools may further improve learners' volitional competence.

In terms of grit, the respondents have a moderate level of consistency of interest and a high level of perseverance of effort. Both the quantitative and qualitative data show that the learners are challenged to sustain their interest and focus, especially on complex tasks. To empower learners and improve their grit, McCarthy et al. (2014) underscores the importance of instructional planning that should consider the readiness and learning profiles of the learners. Schools should streamline their curricula to help learners sustain their interest and focus on long-term school activities such as their thesis, capstone projects, and on-the-job training programs.

Moreover, the metacognitive awareness of the respondents is generally high, which is comparable to the findings of the study of Özçakmak et al., (2021). However, both quantitative and qualitative data uncover interesting areas for improvement, such as learners' awareness about what constitutes relevant knowledge with respect to certain tasks, the assessment of their thinking, and a simplification of complex tasks to manageable forms. Schools should empower online learners by revisiting curricular aims and prioritizing learning activities that will help them become more strategic in their learning situations. Learning how to learn is the very essence of metacognition and learners should be aware of what works for them. This is crucially important in online learning where learners are expected to be self-propelled, thinking individuals.

The contribution of the present study cannot be undervalued in this time of unprecedented changes in education. There is a need to constantly examine cognitive and noncognitive variables that can foster academic achievement in online distance education. While volitional competence, grit, and metacognitive awareness are not new educational research constructs, previous literature has studied them in isolation. This research attempted to advance the existing body of knowledge about these variables by compiling them into one study by utilizing the strengths of a mixed-methodological research design. The findings of this study can be of immense use to educators, researchers, and policymakers who are committed to improving the academic achievement of learners whether they are face-to-face or online and experiencing, or not, the effects of the global pandemic.

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