Is Academic Self-Efficacy Enough to Activate Instrumental Peer Help-Seeking?

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Abstract Academic self-efficacy (ASE) is posited as a strong determinant of adaptive academic behaviors. However, such theoretical assumption has yielded largely inconsistent empirical support when instrumental peer help-seeking is considered. This study tested 12 hypotheses, which mainly expressed that self-efficacy for self- and co-regulated learning (SESCoRL) and the self-efficacy for peer help-seeking (SEPHS) were proximal predictors of instrumental peer help-seeking. A total of 403 college students responded to a digitized self-report questionnaire. The results of structural equation modeling (SEM) with mediation in AMOS supported most of the hypotheses. The link between ASE and instrumental peer help-seeking was indeed a distant one as SESCoRL and SEPHS were found to be missing links in the chain. The results of this study could inform teachers' motivational strategies for enhancing complex self-efficacy beliefs and building learning and life skills of college students for the 21st century.

Keywords: *Academic self-efficacy, Filipino college students, instrumental peer academic help-seeking, mediation*

Introduction

Higher education institutions give premium on learning and innovation skills, as well as life and career skills, as they provide quality education in the 21st Century (P21, 2019). Towards this end, educators are encouraged to constantly make instructional adaptations in order to facilitate collaboration, communication, and self-direction. However, despite all efforts, schools continue to see college students who are passive learners in the way they solicit executive help for their school tasks from peers or not seek help at all (Funa et al., 2022; Kun et al., 2013; Ryan & Shim, 2012; Schworm & Gruber, 2012). In this study, academic self-efficacy (ASE), a motivational resource for active learning, was examined for its role in activating adaptive, instrumental forms of peer help-seeking behaviors among college students.

Instrumental peer help-seeking (IPHS) is an adaptive form of learning strategy that enables students to learn adaptively by getting minimal guiding assistance from classmates to complete academic tasks (Karabenick & Gonida, 2018). Literature has it that, as an adaptive learning skill, it is important for academic achievement, social competence, and adjustment (Alipio, 2020; Chowdhury & Halder, 2019; Chyr et al., 2017; Fong et al., 2021; Holt, 2014a, 2014b; Meera & Dustin, 2013; Micari & Calkins, 2019). However, despite its importance, many students have been observed as not displaying, and even avoiding, such academic behavior (Kun et al., 2013; Ryan & Shim, 2012; Schworm & Gruber, 2012). In the Philippine context, many Filipino students are disengaged from school tasks (Española et al., 2022; Magsambol, 2021; Rotas & Cahapay, 2020) and have reported to have barely manifested academic help-seeking behaviors (Funa et al., 2022). On the one hand, many scholars (e.g., Karabenick &

Gonida, 2018; Ng, 2014) believe that it is a function of the lack of competence to initiate adaptive help-seeking, such as the ability to be aware of the need for assistance, the ability to know when and from whom to get help, among others. On the other hand, Peeters and colleagues (2020) recently emphasized that personal beliefs of competence are enough to activate such self-regulative academic behavior, and these personal beliefs refer to academic self-efficacy (ASE), theoretical origin of which can be traced back to the works of such notable scholars as Bandura (2006a) and Zimmerman (2008).

However, investigations linking ASE and IPHS have generated inconsistent support. In a recent systematic review, Martín-Arbós and colleagues (2021) noted that some studies found positive relationship between ASE and IPHS (e.g., Bernacki et al., 2015; Smalley & Hopkins, 2020; Yang & Taylor, 2013; Yang et al., 2016; Xie & Xie, 2019) and most of them are negative or no support at all (e.g., Kiefer & Shim, 2016; Ng, 2014). One possible reason for this scenario is that ASE is broad and generic, thus its explanatory power may be limited. Another is that the direct relationship of ASE and IPHS might be distant, thus missing links have to be accounted for. In this study, two differentiated sets of academic self-efficacy were proposed: 1) self-efficacy for self- and co-regulated learning (SESCoRL), the perceived competence to engage concurrently in self- and co-regulated learning, and 2) self-efficacy for peer help-seeking (SEPHS), the perceived competence to solicit academic help and assistance from classmates. These self-efficacy beliefs were considered to be more specific than the global ASE, thus expected to be of greater utility in activating IPHS among college students.

Self-efficacy beliefs: ASE, SESCoRL, and SEPHS

In his classic paper on the self-efficacy theory, Bandura (2006a) posited that efficacy beliefs vary in terms of generality. He argued that a generic sense of efficacy is different from a specific sense of efficacy that is usually circumscribed to a certain domain of functioning. Grounded on this contention, the widely-used academic self-efficacy (ASE) may be considered as a broad measure of students' perceived efficacy for general academic functioning. Such broad measures can be differentiated to reduce its scope to specific, but related, domains of functioning, such as the self- and co-regulated learning and the peer help-seeking activity itself.

Self- and co-regulated learning are a set of intertwined activities (Bawa, 2018; DiDonato, 2013) that are clearly academic in nature. The case of self-efficacy for self- and co-regulated learning (SESCoRL) is a specific set of ASE beliefs that is bounded within the realm of self- and co-regulation of learning. Academic peer help-seeking, on the other hand, is conceptually understood as a self-regulative and social-interactive academic task (Karabenick & Gonida, 2018), thus it falls within the realm of self- and co-regulated learning. The case of self-efficacy for peer help-seeking (SEPHS) is a set of beliefs that is specific compared to ASE beliefs and more specific compared to SESCoRL beliefs.

Self-efficacy Beliefs and Instrumental Peer Help-Seeking

Generally, the self-regulation learning theories (Panadero, 2017) consider ASE as a motivational antecedent of help-seeking behaviors. Students with high ASE are believed to be actively engaged and adaptive as they learn (Bandura, 2006a, 2006b, 2006c), thus more likely to secure

instrumental help from others. Previous researchers (e.g., Bernacki et al., 2015; Smalley & Hopkins, 2020) supported such by explicating that students with high ASE are more likely to secure peers' academic assistance because they are less likely to worry that help-seeking would make them look dumb. Mesurado and colleagues (2016) found that positive ASE beliefs increased the probability of Filipino college students to feel vigorous, energetic and dedicated in their academic endeavors. Based on these existing studies, there is reason to expect that high ASE beliefs would also increase the chances of college students to engage in instrumental forms of academic help-seeking from peers. However, as stated, since ASE is broad and global, its link to IPHS may be mediated by more specific ASE beliefs, such as SESCoRL and SEPHS.

Purposes of the Research

This current study sought to test that more specific self-efficacy beliefs, namely SESCoRL and SEPHS, were mediators, or the missing links, in the relationship between generic and broad ASE and IPHS. Grounded on Bandura's (2006b) theoretical proposition that generic self-efficacy in one situation generalizes to other related specific situations, it was hypothesized that ASE would positively relate to SESCoRL and SEPHS, and SESCoRL would positively relate to SEPHS. In addition, it was hypothesized that SESCoRL would positively mediate the relationship between ASE and SEPHS.

> H1: ASE is positively related to SESCoRL.

> H2: ASE is positively related to SEPHS.

> H3: SESCoRL is positively related to SEPHS.

> MH1: The relationship between ASE and SEPHS is mediated by SESCoRL.

Grounded on Bandura-inspired self-regulation theories (Panadero, 2017; Zimmerman, 2008) that academic self-efficacy beliefs are motivational resources for adaptive learning, it was hypothesized that self-efficacy beliefs would increase the probability of college students to engage in adaptive, instrumental forms of academic help-seeking from peers. However, a generic sense of efficacy would have less predictive and explanatory value compared to more specific sense of efficacy (Bandura, 2006b). Thus, because they varied in terms of specificity, it was hypothesized that SEPHS would be more strongly related to IPHS compared to ASE and SESCoRL, and SESCoRL would be more strongly related to IPHS compared to ASE. Moreover, the link between ASE and IPHS would be mediated by both SESCoRL and SEPHS. Lastly, the link between SESCoRL and IPHS would also be mediated by SEPHS.

H4: ASE is positively related to IPHS.

H5: SESCoRL is positively related to IPHS.

H6: SEPHS is positively related to IPHS.

H7: Compared to ASE and SESCoRL, SEPHS is more strongly related to IPHS.

H8: Compared to ASE, SESCoRL is more strongly related to IPHS.

MH2: The relationship between ASE and IPHS is mediated by SESCoRL.

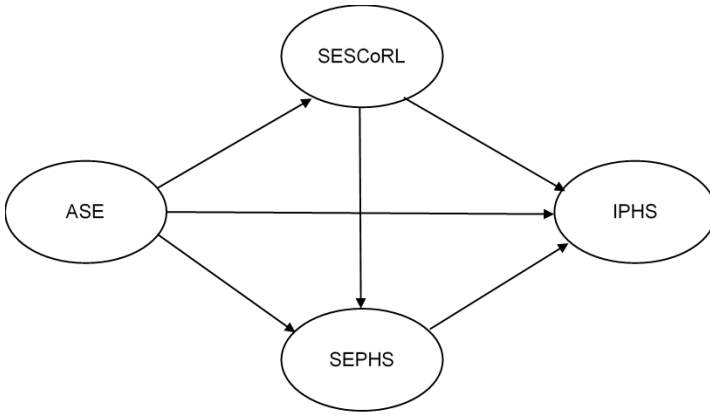MH3: The relationship between ASE and IPHS is mediated by SEPHS.

MH4: The relationship between SESCoRL and IPHS is mediated by SEPHS.

Putting all the hypothesized paths and mediations,

the model is displayed in Figure 1.

Figure 1

The Hypothesized Model

Methodology

Participants

A total of 403 students (70.0% females; M_{age} = 20.23; SD_{age} = 3.20) from the main campus of a state college in northeastern Mindanao, Philippines volunteered to take part in this study. Such institution of higher learning was home to about 10,000 students, offering such programs as Teacher Education, Industrial Technology, Engineering, Information Technology, Computer Science, Hotel and Restaurant Management. The typical students enrolled there were from towns of neighboring islands, such as Siargao, Bucas Grande, and Dinagat. During the time of data collection, the researcher was off-campus pursuing graduate education in Manila. He requested his colleagues to share the uniform resource locator (URL) of the digitized questionnaire to their students, and the participants received it through their group chats. They were asked to

check *Yes* after reading the attached informed consent form to signify that they fully understood the voluntary nature of their participation. For these reasons, the sampling procedure was based on convenience.

Measures

The questionnaire had a total of 43 items organized in four scales that measured the key variables of the study. However, in the final analysis, only 26 items were used. It would take a maximum of 10 minutes to respond to the instrument. For the items intended to measure the different sets of self-efficacy beliefs, the response range was 0 to 100 (0 means *Definitely Cannot Do It* and 100 means *Definitely Can Do It*). For the items intended to measure instrumental peer help-seeking, the response range was 1 to 7 (1 means *Not at All True of Me* and 7 means *Very True of Me*). The reliability and validity evidence of the scales are reported in the *Results* section.

Academic self-efficacy (ASE). Six (6) items were used to measure domain-generic or global ASE, which were used in Ng's (2014) study. The higher the score in this factor, the higher is the extent of global academic self-efficacy of the respondent. A sample item is: "I'm confident I can learn the basic the concepts taught in this course."

Self-efficacy for self- and co-regulated learning (SESCoRL). Based on Kaplan et al.'s (2017) framework, Española (2017) developed a scale that measured college students' perceived competence to engage in learning that is self-regulated and other-mediated (co-regulated). There were 17 items specifically tapping self-efficacy for self-regulated learning (SESRL) and 10 items tapping self-efficacy for co-regulated learning (SECoRL). The latent factor structure of the scale was unitary as expected based on the theoretical assumption that self- and co-regulated learning are concurrent and intertwined (Panadero, 2017), thus the term SESCoRL.

In this study, an abridged form of the scale was used, wherein only 10 items were taken (six items for SESRL and four items for SECoRL, please see *Appendix*). These items had the highest factor loadings ranging from .745 to .807. To confirm the unitary factor structure of the construct, the SESCoRL was represented through a second-order factor model, in which the SESCoRL emerged from two latent factors SESRL and SECoRL, which in turn emerged from the selected 10 items. The high score in this scale is interpreted as a high level in perceived competence to concurrently engage in self- and co-regulated learning processes.

Self-efficacy for peer help-seeking (SEPHS). Eight (8) items were written to measure SEPHS based on review of related literature. Before the items were used for analysis, content validation and PCA were performed to validate the scale. Results of the PCA revealed a unitary factor structure, with eigenvalue of 4.92 and 62.27% variance explained in the data. The factor loadings of all items were from .747 to .843. The actual items are shown in the *Appendix* section. The high score in this factor is interpreted as high perceived competence in securing peers' academic help and assistance.

Instrumental peer help-seeking (IPHS). Two (2) items were used to measure instrumental peer help-seeking, which were used in Ng's (2014) study. The high score in this factor means reported use of instrumental help-seeking from classmates in school. One of the items is: "If I were to ask for help from my classmates in this class, it would be to understand how to solve my problems/difficulties/confusion."

Data Collection

The researcher requested the assistance of colleagues (co-instructors) to administer the questionnaire in their classes with their students. The questionnaire had an instruction that said, *"I would like you to think of one class you are*

currently taking this semester/term. Then, respond to the following statements with that specific class in mind. There are no wrong or right answers. Just respond as accurately as possible." In addition, the questionnaire had an attached consent form explaining the purpose of data collection and assuring the respondents of confidentiality.

Data Analysis

For the preliminary analysis, data screening was done to address missing data, outliers, normality, and multicollinearity. Four rows with over 5% missing data were deleted, and the very minimal (less than 5%) missing data in some rows were mean-imputed. Tolerance values of the predictors were all less than 1 (.267 to .429), indicating absence of multicollinearity (Tabachnick et al., 2019).

For the main analysis, a structural equation modeling (SEM) following the two-step procedure (Anderson & Gerbing, 1988) was used to test the measurement model and the full structural model. The estimates were computed through maximum likelihood estimation using AMOS 18. First, confirmatory factor analysis was done to examine the measurement model, and was duly validated to examine reliability and validity of the key constructs in the model. Then, the structural model was set up resembling the hypothesized model.

In the same structural model, the mediation analyses were done following the technique of Baron and Kenny (1986). First, the direct effects of a predictor on an outcome with and without the mediator were determined. Then, the indirect effect of the predictor on the outcome was significance-tested via bootstrapping to determine if there was full or partial mediation.

Results and Discussion

The Measurement Model

To confirm the reliability and validity of the constructs, confirmatory factor analysis was done for the measurement model. The fit indices were acceptable: X^2/df = 1.951; root mean square error of approximation (RMSEA) = .049; comparative fit index (CFI) = .959; normed fit index (NFI) = .920; non-normed fit index (NNFI) = .954; and incremental fit index (IFI) = .960. The factor loadings in the model ranged from .563 to .947, and were all statistically significant at p = .001. As shown in Table 1, the composite reliabilities (CR) of the constructs in the model were all above the cut-off of .70 (Nunnally, 1978), confirming internal consistency of the constructs. In addition, the mean of the average variance extracted (AVE) of each pair of constructs surpassed the squares of the correlation between them (Fornell & Larcker, 1981), confirming discriminant validity among the constructs. Altogether, these statistics indicated that the constructs were reliably measured, and that they were distinct from one another, further evidenced by not too strong correlations (.256 to .761).

Table 1

The CR, AVE, square root of AVE (diagonal elements) and correlation between latent variables (off-diagonal elements)

|	CR	AVE	IPHS	ASE	SEPHS	SESCoRL
IPHS	0.743	0.606	0.778			
ASE	0.908	0.622	0.256	0.789		
SEPHS	0.910	0.559	0.376	0.626	0.748	
SESCoRL	0.981	0.962	0.382	0.761	0.691	0.981

CR = composite reliability; AVE = average variance extracted; ASE = academic self-efficacy; SESCoRL = self-efficacy for self- and co-regulated learning; SEPHS = self-efficacy for peer help-seeking; IPHS = instrumental peer help-seeking

The Structural Model and Mediation Analyses

After confirming the reliability and validity of the constructs, the structural model was tested with all the hypothesized paths (see Figure 2). As can be seen, global ASE was found to have significant positive direct effects on the two differentiated efficacy beliefs: bigger weight on SESCoRL compared to the weight on SEPHS. Also, SESCoRL was found to have a significant positive direct effect on SEPHS. Together, these findings supported Hypotheses 1, 2, and 3, and could serve as evidence for the generalization effect of global generic ASE to more domain-specific efficacy beliefs. The variance in IPHS that was accounted for by ASE, SESCoRL, and SEPHS was acceptable ($R2 = .212$).

Figure 2

*Structural Model with the Path Coefficients (**p=.001; *p=.004)*
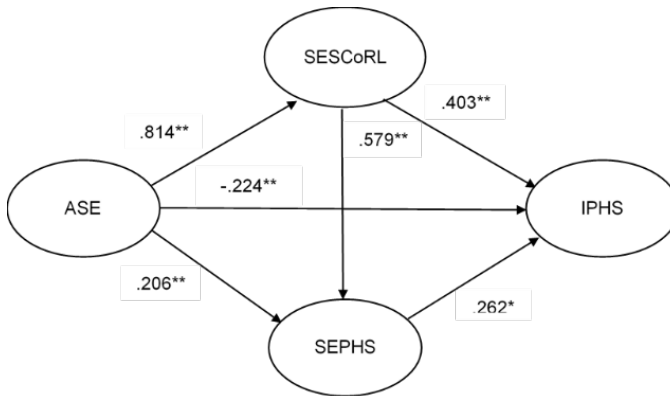
After testing the structural model, mediation analyses were done (see Table 2). It can be seen that, without considering any mediator, each of the three sets of efficacy beliefs had significant positive direct effects on IPHS, supporting Hypotheses 4, 5, and 6. However, the positive direct effect of SESCoRL on IPHS was the strongest direct

effect on IPHS, not the SEPHS. This was in contrast to the expectation that the SEPHS would have a bigger contribution on IPHS compared to ASE and SESCORL because it was the most specific, thus most proximal, to the domain of IPHS. With this, Hypothesis 7 was not supported; only Hypothesis 8 was supported. Altogether, these results could still mean that self-efficacy beliefs would have varying predictive utility depending on their generality or specificity.

Table 2

Mediation Analysis Results

Mediated relationship [X—M—Y]	Direct effect without M (*p* value)	Direct effect with M (*p* value)	*p* value indirect effect via bootstrapping	
ASE—SESCoRL—SEPHS	.677 (.001)	.206 (.001)	.001	Partial mediation
SESCoRL—SEPHS—IPHS	.416 (.001)	.247 (.001)	.004	Partial mediation
ASE—SESCoRL—IPHS	.281 (.001)	-.170 (.029)	.001	Partial mediation
ASE—SEPHS—IPHS	.281 (.001)	.006 (.920)	.001	Full mediation

Note: X is predictor; M is mediator; and Y is outcome.

Lastly, based on the results of the mediation analyses, all four mediation hypotheses were supported. Altogether, the significant mediations indicated that, indeed, the relationship between ASE and IPHS was a distal one, and that there were more specific and context-sensitive belief systems that needed to be accounted for in order to affirm Bandura's (2006a, 2006c) original proposition that personal beliefs of competence were enough to activate instrumental peer help-seeking.

Discussion

Results of the structural equation modeling, including the mediation analyses, generally provide three key points of discussion. First, the generic set of efficacy beliefs (i.e., the ASE) generalizes to the specific sets of efficacy beliefs (i.e., the SESCoRL and the SEPHS). Bandura (2006b) made it clear that personal efficacy has a dimension of generality. That is, a sense of personal efficacy may be circumscribed to a general or specific task, condition, or circumstance. The case of ASE in this study is operationalized as generic academic efficacy judgments, while SESCoRL and SEPHS are regarded as specific academic efficacy judgments bound to the task of self- and co-regulated learning and the task of peer help-seeking, respectively. The assumption of generalization is fully supported in the sense that ASE influences SESCoRL and SEPHS, and SESCoRL influences SEPHS. Moreover, ASE influences SEPHS by influencing SESCoRL. On a very critical note, this information clarifies that ASE, SESCoRL, and SEPHS are not only differentiated, separate sets of personal efficacy beliefs; they actually comprise a network or hierarchy of personal efficacy beliefs.

Second, the ASE is enough to activate instrumental peer help-seeking by virtue of its indirect effects through the SESCoRL and the SEPHS. Bandura (2006b) emphasized that for self-efficacy to increase its explanatory power, it should not be devoid of a specific context. So, it should not have come as a surprise when the relationship between the generic ASE and a certain academic behavior (i.e., instrumental peer help-seeking) has earned inconsistent empirical support (Kiefer & Shim, 2016; Ng, 2014; Yang & Taylor, 2013). However, this does not readily mean that ASE is not at all related to instrumental peer help-seeking. Zimmerman (2008), along with Bandura (2006a), was firm in believing that students are adaptive and actively

involved in their learning; that is, they are active agents of their learning and development. Since wielding ASE is the primary way of an individual to exercise personal agency, it remains valid to argue that high-ASE students would engage in adaptive help-seeking behaviors. In this study, the direct effect of ASE on IPHS was positive, but its mediated effect was negative. This finding is important because this indicates some sort of "competition" among constructs considered in the model (Hayes, 2022). In a way, this indicates that ASE can indeed activate instrumental peer help-seeking, but in a very complex manner. It has to produce first more specific sets of efficacy beliefs, such as the SESCoRL and SEPHS, and maybe activate other underlying mechanisms as well that are not considered in the current model. Taken together, the findings of the present study support current theorizing on adaptive help-seeking (Karabenick & Gonida, 2018), but the suppressed effect of ASE warrants further investigation.

Finally, domain-specific self-efficacies are more useful than domain-generic self-efficacies in initiating instrumental peer help-seeking behaviors. Consistent with Bandura (2006a), the context-specific measures of self-efficacy beliefs have proven to be more adequate in activating instrumental peer help-seeking than the context-generic ASE. When the literature is further reviewed, it is revealed that the use of domain-specific measures of self-efficacy is widespread (e.g., Anam & Stracke, 2016; Chen, 2017; Shen et.al., 2013), but very few of them studied their effects along with the domain-generic self-efficacy. Thus, the multivariate analysis of different but related self-efficacy beliefs performed in the present study offers insights on the complex nature of personal efficacy beliefs.

Conclusion and Recommendations

The present study aimed to investigate whether ASE (academic self-efficacy) was enough to activate IPHS (instrumental peer help-seeking). As the link between the two constructs may be distal and mediated, two differentiated sets of self-efficacy beliefs were proposed as mediators and stronger predictors: the SESCoRL (self-efficacy for self- and co-regulated learning) and the SEPHS (self-efficacy for peer help-seeking). The findings revealed that, as hypothesized, all three sets of efficacy beliefs were related to IPHS, but varying in strength depending on their domain generality/specificity. The effect of global ASE on IPHS was weaker compared to the effect of SESCoRL on the same, which in turn was weaker compared to the effect of SEPHS on the same. In addition, as hypothesized, the effect of ASE on IPHS was found to flow through SESCoRL and SEPHS, confirming that specific self-efficacy beliefs were the mechanisms for global competence beliefs to produce actual adaptive behaviors.

The effect of ASE, SESCoRL and SEPHS on instrumental peer help-seeking clarify the idea that personal efficacy beliefs have an important role in activating self-regulative, social-interactive behaviors. As a practical implication, instructors who want their college students to become active agents in their own learning may begin working at how students judge their overall academic competence. They can do this by facilitating success or mastery experiences, and by giving timely informational feedback on their achievements. When the generic self-efficacy is enhanced, it follows that students feel confident about themselves and are motivated to take action and own the responsibility for their learning. Instructors may further facilitate students by nurturing specific self-efficacy, such as the efficacy for self- and co-regulated learning (SESCoRL) and the self-efficacy for peer help-seeking (SEPHS), through

providing opportunities for students to review and reflect on successful activities that involve self-regulation, co-regulation, and help-seeking and help-giving.

Another practical implication is for instructors, including guidance counselors and other student personnel service officers, to be more intentional in building and enhancing students' collaboration skills and sense of self-direction, which are two of the most essential 21st Century skills (P21, 2019). Knowing now that instrumental peer help-seeking requires complex personal efficacy beliefs, instructors may thoughtfully invest in developing students' confidence. For example, they may use structured peer feedback and praise in order for students to be more responsible for their actions in peer collaborative task situations and for them to feel proud of their contributions and achievements. They may also refrain from setting standards that are unclear or too high; instead, they provide templates, guides, and rubrics as scaffolds for the development of self-direction and lifelong learning of students.

The present study is limited on several counts. First, no cause-and-effect relationship can be inferred from the findings as the data analytic design was entirely correlational and the data used were obtained at one time only. Future researchers may consider an experimental design and/or collect longitudinal data to infer causality. Second, the method of data collection was through a self-report questionnaire. While there is a good sense of measuring efficacy beliefs through self-reports, some data could be inaccurately reported by some respondents. Future researchers may consider other data collection techniques, such as the experience sampling method, or gathering other related data to corroborate findings. Finally, the study does not depict a complete picture of the highly complex academic help-seeking construct. Makara and Karabenick (2013, as cited in Reeves & Sperling,

2015) proposed a framework that classifies help-seeking behaviors based on the four dimensions of help sources: role, relationship, channel, and adaptability. The case of peer help-seeking only pertains to a kind of help-seeking behavior in which the help source is informal (not required), in contrast to formal (required), as in the case of help-seeking from academic advisers and teachers. Future researchers who wish to understand the role of efficacy judgments on academic help-seeking may consider the multidimensionality of the construct.

In the interest of increasing the explanatory power (i.e., the R^2) of the model, future researchers may also consider accounting for the effects of other antecedents of the behavior, such as achievement goals (Gonida et al., 2014; Gonida et al., 2019; Hao et al., 2017; Yang et al., 2016), goal orientations (Sideridis & Stamovlasis, 2016), social goals (Kiefer & Shim, 2016), attitudes toward help-seeking (Holt, 2014a; 2014b), and even gender Schenke et al., 2015). Finally, future researchers may look into the multi-level effects of the three sets of personal efficacy beliefs on other academic outcomes, not only instrumental peer help-seeking, to understand further the potentially hierarchical nature of personal efficacy beliefs.

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Appendix

SESCoRL Items

1. I can look for related information in guides/manuals/rubrics to determine what I really need to accomplish.
2. I can go to a conducive place to do my assignments/projects/readings.
3. I can take note of difficult concepts/ideas so that I can research/study about them later.
4. I can share with my classmates the state of my learning progress so that I can tell I am on the right track.
5. I can confer with my classmates to know if I am doing my assignments/projects the right way.
6. I can evaluate my learning strategies whether they are effective based on my academic performance.
7. I can reflect on what learning strategies I need to maintain/keep on using.
8. I can reflect on aspects of my behaviors that need to be improved.
9. I can commit to improve my study habits when I know my classmates do better in their studies.
10. I can obligate myself to change my methods of learning when I know that my academic performance is lagging behind my classmates.

Note: Items 1-3 and 6-8 tap self-efficacy for self-regulated learning while items 4-5 and 9-10 tap self-efficacy for co-regulated learning. But altogether, all items tap only one factor: the self-efficacy for self- and co-regulated learning (SESCoRL).

SEPHS Items

1. When I work on my difficult assignments:
2. I can tell whether I should seek my classmates' help or not.
3. When I am aware that I need help for my assignments:
4. I can compel/force myself to get the help that I need from my classmates.
5. When I get confused with my school-related tasks:
6. I can identify who among my classmates are capable of helping me;
7. I can explain clearly my difficulty to a student so that I get the right help that I need.
8. When I want to master a topic that is interesting but hard-to-understand:
9. I can find classmates who are willing enough to assist me;
10. I can find the right timing so I do not disturb a classmate during the helping process.
11. When the teacher encourages collaboration/ cooperation in class:
12. I can approach my classmates for help in a polite and respectful manner.
13. When I feel that my classmates are caring, supportive, and friendly:
14. I can convince myself that I should not be shy/ afraid of seeking their help.