HỨNG THÚ NGHIÊN CỨU VÀ TỰ TIN TRONG NGHIÊN CỨU CỦA SINH VIÊN TẠI MỘT TRƯỜNG ĐẠI HỌC Ở VIỆT NAM: MỘT NGHIÊN CỨU TƯƠNG QUAN

RESEARCH INTEREST AND RESEARCH SELF-EFFICACY AMONG STUDENTS AT A UNIVERSITY VIETNAM: A CORRELATIONAL STUDY

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THÔNG TIN

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TÓM TẮT

Nhiều tài liệu nghiên cứu cho thấy rằng sự phát triển của tự tin trong nghiên cứu (RSE) và hứng thú nghiên cứu (RI) góp phần làm tăng năng suất và chất lượng nghiên cứu. Tuy nhiên, chưa có nhiều công trình tìm hiểu về RSE và RI ở Việt Nam. Nghiên cứu này sử dụng phương pháp chọn mẫu thuận tiện và thiết kế tương quan để đo lường mức độ RSE và RI của sinh viên tại một trường đại học ở Việt Nam, đồng thời xem xét mối liên hệ giữa hai biến số. Kết quả cho thấy sinh viên thể hiện mức độ trung bình về tự tin và hứng thú. Không có mối quan hệ có ý nghĩa thống kê giữa RSE và RI. Những phát hiện từ nghiên cứu này giúp giảng viên và các nhà giáo dục xây dựng các biện pháp hỗ trợ phù hợp nhằm nâng cao tự tin và hứng thú trong nghiên cứu khoa học - điều đặc biệt quan trọng khi giai đoạn nghiên cứu ở bậc đại học là giai đoạn hình thành bản sắc nghiên cứu khoa học của sinh viên.

Từ khóa:
Thiết kế nghiên cứu tương quan, tự tin trong nghiên cứu, hứng thú nghiên cứu, sinh viên bậc đại học, Việt Nam.
Keywords:
correlational research design, research interest, research self-efficacy, undergraduate, Vietnam.

ABSTRACT

The literature shows that the development of research self-efficacy and research interest contributes to improvements in research productivity and quality; however, there has been a limited number of studies investigating undergraduates' research self-efficacy and research interest, especially in the Vietnamese context. This study, using a correlational research design, measured the levels of research self-efficacy and research interest among undergraduates at a university in Vietnam. It also examined whether there was a statistically significant relationship between the two variables. A convenience sampling method was used to recruit a sample of 379 students who completed an online questionnaire. Results indicated that the students demonstrated moderate levels of research self-efficacy and research interest and there was no statistically

significant correlation between the two variables. The findings from this study may help teachers and educators in Vietnam and similar settings to develop initiatives to enhance students' research self-efficacy and interest in research, which are critical during the early stages of undergraduate research identity development.

1. Introduction

To improve the quality and quantity of students' scientific research outputs, a series of policies have been implemented in many universities to encourage students to participate in scientific research, including establishing research centers and organizing scientific conferences (Huang, 2016; Le & Hoang, 2021). Student scientific research has become a topic of growing interest in Vietnam, as reflected in studies that examine students' scientific research capacity (Le & Hoang, 2021) and the current state of their scientific research activities (Ho & Nguyen, 2021; Ninh, 2022).

For undergraduate students, a lack of research experience and limited exposure to research methodologies can create significant barriers, affecting their attitudes toward and confidence in scientific research (van Blankenstein et al., 2019). Previous studies have shown that research self-efficacy (RSE), belief in one's ability to perform research tasks, is one of the most important factors predicting students' performance and level of engagement in scientific research (Seng et al., 2020). Besides RSE, research interest (RI), an individual's interest in conducting research (Bishop & Bieschke, 1994), also has a significant impact on research process and research performance. Literature shows that the development of RI contributes to improvements in research productivity and quality (Sunal, 2016). Scholars have investigated the relationship between RSE and RI, but findings have been inconsistent (Hill et al., 2022; Kerrigan & Hayes, 2016). In addition, there has been a limited number of studies investigating undergraduates' RSE and RI (Hill et al., 2022), especially in the Vietnamese context.

This study measured the levels of RSE and RI among undergraduates at a university in Vietnam and examined whether there was a significant relationship between the two variables. Findings from this study may help teachers and educators to develop initiatives to enhance students' RSE and RI, which are critical during the early stages of research identity development. The following research questions guide the present study.

What are the research self-efficacy levels of Vietnamese undergraduates?

What are the research interest levels of Vietnamese undergraduates?

Is there a significant relationship between research interest and research self-efficacy?

2. Literature Review

2.1. Research self-efficacy and research interest

An individual's research self-efficacy refers to their belief in their ability to successfully perform a specific research task in the future (Bandura, 1986). Self-efficacy theory is a core component of social-cognitive theory (Bandura, 1997), emphasizing that a person's belief in their capability to carry out a particular task has a powerful influence on their motivation, behavior and performance outcomes. When students successfully engage in research practice, participate in successful scientific projects, or complete research papers, they become more confident in conducting future research. When they observe others, especially those similar to themselves in research ability, successfully performing a task, they may believe that they too can succeed.

Besides, encouragement and guidance from lecturers, peers or academic advisors can help strengthen an individual's belief in their own research competence. Students may feel anxious when presenting research; however, with adequate psychological support, their level of self-efficacy can increase. Students with high levels of RSE are generally more willing to participate in research (Wright & Holttum, 2012) and achieve better research outcomes than other students (Poh & Abdullah, 2019; Tiyuri & et al., 2018).

Research interest is a person's interest in conducting a specific task of research (Bishop & Bieschke, 1994), which is grounded in the social cognitive model of academic and career development suggested by Lent et al. (1994). This model has been widely applied in academic settings to explain students' interest development, motivation and performance-related behaviors. It provides a comprehensive framework for understanding how students develop academic interests, make learning-related decisions and persist in challenging academic tasks, such as research activities. This model is considered as a domain-specific application of Bandura's (1986) socio-cognitive theory since it emphasizes the central role of self-efficacy beliefs in shaping students' learning experiences. According to the model, interest in research is a dynamic psychological construct that is influenced by personal characteristics, environmental factors, and primarily from RSE. When students believe that they can do research-related tasks, they are more likely to develop a strong interest in research. In contrast, low self-efficacy may limit students' engagement and hinder the development of RI, even when external resources and opportunities are available.

In this study, Bandura's (1997) socio-cognitive theory and Lent et al.'s (1994) social cognitive model suggest a conceptual relationship between RSE and RI. Specifically, self-efficacy beliefs are theorized to function as a proximal cognitive mechanism through which students develop their interest in domain specific tasks including research activities. Guided by these theoretical perspectives, the present study conceptualizes RSE as a key predictor of RI among undergraduate students.

2.2. Selective studies in research self-efficacy, research interest, and the relationship between the two variables

Findings from studies measuring the RSE levels have been inconsistent across different settings. For example, Seng et al. (2020) conducted a quantitative study with undergraduates from three Cambodian universities and found that the students demonstrated low levels of RSE. In contrast, Mohamed and Nordin (2013), in a quantitative study with Malaysian seniors, reported high RSE levels (3.71/5). Most scholars agree that students with research experience tend to display greater levels of RSE than those without such experience. Ashrafi-Rizi et al. (2015) examined the RSE levels of Iranian medical students and found that undergraduates had lower RSE levels than their postgraduate peers. Similarly, in the study of Hess et al. (2022), students had limited or no research experience obtained lower levels of RSE compared to students with three or more research experiences. Moreover, undergraduates' RSE will likely increase after participation in research development courses. For example, van Blankenstein et al. (2019) measured the RSE levels of education juniors in the Netherlands after a year-long research course and reported a significant increase in RSE levels. These mixed findings suggest that RSE is highly context-dependent and shaped by students' educational environments and research exposure. Consequently, examining RSE in a specific national and institutional context is necessary to understand how self-efficacy beliefs function as a

foundational component in a research-related framework.

A search on the EBSCO database from 2010 to 2024 shows that the number of studies investigating interest in research remains limited, especially those employing undergraduates as participants. Most studies are outdated and some of them do not use constructs grounded in the social cognitive model suggested by Lent et al. (1994). For example, Moraes et al. (2016) conducted a cross-sectional study to explore the RI of undergraduate medical students. Using a scale consisting of five questions exploring general research interest, the authors found that most students (81.7%) reported being interested in research. Lambie et al.(2014) and Lambie and Vaccaro (2011) similarly found that PhD students had high levels of interest in research, largely due to their research knowledge and experience. However, existing studies primarily reported overall or general levels of RI. No single study has explicitly examined which specific RI aspects that students demonstrate at low or high levels. The tendency to conceptualize RI as a unidimensional or global construct represents a conceptual limitation in existing research. Without examining specific dimensions or aspects of RI, it remains difficult to understand how self-efficacy beliefs may differentially influence students' engagement with various research activities. Besides, identifying specific RI aspects could better inform targeted initiatives to enhance RI. This gap highlights the need for a more fine-grained operationalization of RI within a socio-cognitive framework.

Very few studies investigating the link between RSE and RI have used undergraduates as participants. Although socio-cognitive theory posits a robust relationship between self-efficacy and interest development (Bandura, 1997; Lent et al., 1994), empirical findings regarding the RSE-RI relationship remains inconclusive, particularly among undergraduate populations. Most scholars agree that the more self-efficacious a student is in research, the greater interest in research he or she is likely to show. For example, Sasson and Miedijensky (2023) found a positive and significant correlation between RSE and RI among faculty members. Hill et al. (2022) similarly reported that undergraduates having higher levels of RI would also display higher levels of RSE. In contrast, Kerrigan and Hayes (2016) found no significant relationship between RSE and RI among education doctoral students. These inconsistent findings are attributed to differences in research methods and research setting. Moreover, much of the existing evidence is drawn from Western or postgraduate samples, raising questions about the generalizability of these theoretical assumptions to undergraduates in non-Western contexts.

To date, there has been no single study measuring the RSE and RI levels, as well as investigating the link between the two variables in the Vietnamese context. Scholars have instead investigated research-related constructs such as research ability, motivation and supervisor role during the research process. For example, Tran et al. (2022) explored English majors' perceptions of thesis supervision and reported that students valued important attributes of supervisors. Specifically, the supervisors were expected to possess strong research knowledge, provide support when needed, offer constructive feedback, and respect students' ideas. Le and Hoang (2021) investigated the research ability of English majors and found that students overestimated their research ability. Although they were aware of the importance of research, they lacked a clear understanding of its components. Pham et al. (2018) explored the predictive role of five factors: university policies, internships, teachers, students themselves and research facilities, on undergraduates' research motivation. Teachers emerged as the most influential factor, while internships had no effect and other factors

showed minimal influence. Notably, none of existing studies have explicitly operationalized RSE or RI within a socio-cognitive framework. As a result, it remains unclear how Vietnamese undergraduates' beliefs about research capabilities translated into sustained interest in research activities.

Given the limited number of research investigating RSE and RI in the Vietnamese context, the under-researched undergraduate population and the inconsistent findings in the existing literature, it remains unclear how the relationship between RSE and RE operates among Vietnamese undergraduate students. This study seeks to address these gaps in the literature, by using a socio-cognitive theory (Bandura, 1986) and a socio-cognitive model (Lent et al., 1994) as its theoretical framework.

3. Methods

The study used a correlational research design to examine the variables. In addition, it adapted validated scales, which were developed within the socio-cognitive theory (Bandura, 1996) and socio-cognitive model (Lent et al., 1994).

3.1. Participants

After obtaining permission from the Human Ethics Review Committee (Reference No. 01/2025-KHCB-ĐĐNC), questionnaire invitations were sent to 420 students enrolled in a research methods course at a university in Southern Vietnam. A convenient sampling method was used to select participants for this study. The study ensured full anonymity and participation was voluntary. A sample of 379 students (197 juniors and 182 seniors) at a Vietnamese university participated in the study. Of these, two hundred and seventy-eight were male (73.4%) and 101 were female (27.6%). One hundred and ninety-seven were juniors (52%), while 182 were seniors (48%). Regarding field of study, 285 students majored in business administration (75.2%), followed by computer science with 54 students (14.2%) and electrical engineering with 40 students (10.6%).

3.2. Instruments

The questionnaire consists of three sections. Section 1 collected participants' demographics information and was developed in Vietnamese. Section 2 was the RSE scale adapted from the 5-point Likert scale developed by Rezaei and Zamani-Miandashti (2013). This scale included 13 question items with a Cronbach's alpha of 0.93. Bandura (1997) suggested using the phrase "I can" when developing self-efficacy scales to reflect individuals' ability judgement. Therefore, the phrase "the ability" in the original scale was replaced with "I can". In addition, Item 3, "The ability to review a particular area of agricultural science theory and research, and write a balanced and comprehensive literature review", in the study of Rezaei and Zamani-Miandashti (2013) was originally designed for agricultural postgraduates. Consequently, it was revised to "I can write a balanced and comprehensive literature review" to suit the undergraduate level in the current study. Moreover, the item "I can write appropriate referencing in my research" was added following a discussion with a group of experienced teachers and researchers. The final scale consisted of 14 items, with a Cronbach's alpha of 0.94, indicating high internal consistency.

Section 3 used the RI scale developed by Bieschke and Bishop (1994). This scale reflects principles of Bandura's (1986) socio-cognitive theory and aligns with the socio-cognitive model proposed by Lent et al. (1994). The scale consisted of 16 items, asking respondents to rate their degree of interest on a 5-point Likert scale ranging from 1 (very uninterested) to 5 (very interested). The internal consistency of the scale was reported to be high, with coefficient alphas of 0.89 (Bieschke & Bishop, 1994). In the curent study, several phrases were modified to fit the research context better. Specifically, "Discussing research findings with your colleagues" were changed to "Discussing research findings with your classmates" and

"Conducting research at the site of counseling practice" were changed to "Conducting research within my field of study". The RI scale had a 0.88 Cronbach's alpha in the present study.

Although the RSE and RI scales were validated in prior studies, they were translated and adapted for use with Vietnamese undergraduates in the present study. Given the potential influence of linguistic and cultural differences on how scale items are interpreted, an exploratory factor analysis was run to assess the construct validity of the adapted instruments. A KMO value of 0.823 was found and Bartlett's test was significant (p = .000). Data showed that Item 20, "Conducting research within my field of study", was cross loaded, with a loading difference of 0.049 < 0.2. Item 15, "Reading a research journal article", did not display factor loadings. Therefore, the items were removed and the analysis was repeated. The revised factor loadings ranged from 0.607 to 0.856. The final questionnaire consisted of 28 items. The RSE scale remained unchanged with 14 items, while the RI scale had 14 items.

Before being distributed online to participants, the RSE and RI scales were translated into Vietnamese using a translation and back-translation procedure to ensure semantic and conceptual equivalence with the original instruments. The questionnaire was then pilot tested with 30 students to minimize technical difficulties and potential ambiguity. No revisions were made because students did not report any difficulties. Data were analyzed using SPSS 25.0 for Windows. Descriptive statistics were used to examine the RSE and RI levels. Mean scores were interpreted using predefined cut-off points, with values ranging from 1.00-2.60 indicating a low level, 2.61-3.40 indicating a moderate level, 3.41-5.00 indicating a high level of the measured construct. Pearson correlation analysis was employed to explore the relationship between RSE and RI.

4. Results

4.1. The RSE and RI levels of undergraduates

As can be seen in Table 1, Vietnamese undergraduates demonstrated moderate levels of both RSE (M=3.30) and RI (M=3.24). An examination of the scores on the RSE scale showed that students reported the highest levels of RSE when referencing (M=3.61), followed by searching database for literature (M=3.47). They reported the lowest self-efficacy when writing suggestions for future research (M=3.13) or writing a balanced and comprehensive literature review (M=3.16). Regarding the RI scale, the students expressed the greatest interest in developing a data analysis strategy for a research study (M=3.91), followed by leading a research team (M=3.72). The lowest levels of interest were in taking a research design course (M=3.01) and discussing research findings with classmates (M=3.01).

Table 1: Descriptive statistics

	N	**Mean**	**Std. Deviation**
RSE	379	3.30	.691
RI	379	3.24	.569
Valid N (listwise)	379		

Note: RSE: Research self-efficacy, RI: Research interest

Table 2: *Descriptive Statistics of the Research Self-Efficacy Scale*

Research Self-Efficacy Scale	Mean	SD
1. I can do electronic database searching of scholarly literature.	3.47	.858
2. I can realize the research gaps that may contribute to the field I work in.	3.22	.963
3. I can write a balanced and comprehensive literature review.	3.16	.969
4. I can effectively present findings both verbally and in written form.	3.34	.949
5. I can compare the results of my research to prior research results.	3.34	.935
6. I can read and understand research findings and discussions in academic journals/papers.	3.30	.894
7. I can create hypotheses/research questions relevant to my research.	3.22	.938
8. I can write suggestions for future research.	3.13	.997
9. I can interpret and understand statistical information/data.	3.26	.962
10. I can design and implement the best data analysis strategy for the study.	3.18	.926
11. I can evaluate the validity and reliability of my research data through appropriate methods.	3.21	.918
12. I can identify and report the limitations of the study.	3.41	.911
13. I can use various technological advances effectively in carrying out research.	3.38	.922
14. I can write appropriate referencing in my research.	3.61	.976

Table 3: Descriptive Statistics of the Research Interest Scale

Research Interest Scale	Mean	SD
16. Being a member of a research team	3.22	.900
17. Conceptualizing a research study	3.30	.924
18. Conducting a literature review	3.06	.899
19. Having research activities as part of every work week	3.06	.975
21. Developing funding proposals	3.02	.924
22. Taking a research design course	3.01	.900

Research Interest Scale	Mean	SD
23. Taking a statistics course	3.04	.946
24. Developing a data analysis strategy for a research study	3.91	.871
25. Analyzing data	3.20	.975
26. Discussing research findings with your classmates.	3.01	.886
27. Writing for publication/presentation	3.06	.908
28. Leading a research team	3.72	.732
29. Designing a study	3.22	.961
30. Collecting data	3.20	.901

4.2. The correlation between RSE and RI

There was no statistically significant correlation between RSE and RI (r=.05, p=.30) as indicated in Table 4.

Table 4*:* Correlation analysis between research self-efficacy and research interest

		RSE	RI
RSE	Pearson Correlation	1	.053
	Sig. (2-tailed)		.303
	N	379	379
RI	Pearson Correlation	.053	1
	Sig. (2-tailed)	.303	
	N	379	379

Note: RSE: Research self-efficacy, RI: Research interest

5. Discussion

The study aimed to examine the levels of RSE and RI of Vietnamese undergraduates, as well as the correlation between RSE and RI, in response to a lack of research in the literature. Results indicated that the students demonstrated moderate levels of RSE and RI, and there was no statistically significant relationship between RSE and RI.

The finding that undergraduates had moderate levels of RSE was inconsistent with previous findings, such as Seng et al. (2020) and Garcia et al. (2025, in which students displayed low levels of RSE. However, this result was in line with the findings of Uçar et al. (2023), where the students also had moderate levels of RSE. In the study by Seng et al. (2020), the students had the lowest levels of RSE in writing different sections of a research paper. Similarly, students in the study by Garcia et al. (2025) and Mohamed and Nordin (2013) reported lower levels of RSE when writing the research paper. Comparable challenges were observed in this study, as undergraduates reported the lowest self-efficacy when writing suggestions for future research or writing a balanced and comprehensive literature review. In addition, Vietnamese students demonstrated a high level of RSE in searching database for literature, which aligns with the finding of Mohamed and Nordin (2013). Overall, the findings suggest that while undergraduates in this study possessed some

foundational skills for conducting research, they lacked research writing skills. Insufficient experience in research writing skills and limited exposure to critical writing may have contributed to the difficulties.

Regarding RI, give the lack of research examining which specific aspects of RI students demonstrate at low or high levels of RI, this study addressed an important gap in the literature by providing a more nuanced understanding of how RI manifested among Vietnamese undergraduates. The finding that the students showed the greatest interest in developing a data analysis strategy likely reflected a preference for concrete and technical skills. Besides, their high interest in leading a research team might have stemmed from the high social values and status associated with leadership in Vietnamese society. Instead, taking a research design course might have been viewed as abstract or theory-heavy, resulting in their lowest levels of interest. Their low interest in discussing research findings with classmates might have been influenced by teacher-centered instructional traditions commonly found in Asia countries (Phan, 2011).

In the present study, RSE and RI were not correlated, which contrasts with the findings of Sasson and Miedijensky (2023) and Hill et al. (2022) but are consistent with those of Kerrigan and Hayes (2016). The absence of a significant RSE-RI relationship suggests that RI may be driven more strongly by other social and contextual factors such as education norms or perceived academic and career benefits. Lent et al. (1994) suggested that the strength of the RSE-RI relationship depends on individuals' learning experiences. The undergraduates in the present study had limited research exposure, primarily classroom-based or theory-based experiences (Tran & Nguyen, 2022), which were likely not sufficiently differentiated to help them develop RSE in ways that meaningfully corresponded to their RI. In addition, self-efficacy is task- and context-specific (Bandura, 1997); therefore, limited exposure to authentic research tasks can lead to unstable judgements of RSE, thereby weakening its link with interest in research.

This study contributes to the literature by demonstrating that undergraduate RSE is task-specific rather than uniform, with students reporting greater confidence in technical research skills and lower confidence in higher-order research writing tasks. The study also advances understanding of RI by identifying different levels of interest across specific research activities, thereby addressing the limitations of prior research that has treated RI as a global construct. Most importantly, the absence of a statistically significant relationship between RSE and RI challenges the commonly assumed positive correlation between these constructs and suggests that, in contexts students have limited exposure to authentic experiences, research interest may develop independently of perceived competence. This finding refines socio-cognitive perspectives by highlighting the contingent nature of the self-efficacy-interest relationship during early stages of research development.

As undergraduates are in early stages of research identity development, enhancing their RSE and RI appears to be critical. The findings of these studies emphasize the need for research skill-building interventions that can strengthen these students' RSE and RI. Workshops on research writing skills, especially literature review writing and the discussion and implications sections, which are more abstract and require higher-order critical thinking skills, could help build competence in these areas. Moreover, the lack of a statistically significant relationship between RSE and RI suggests the importance of providing authentic research experiences through which students can ground their RSE and RI in

personal performance, given that interest in research can exist independently of perceived competence (Sasson & Miedijensky, 2023). Authentic research experiences can involve structured mastery experiences in which students are trained to work on discrete components of a research paper such as formulating research questions, writing the literature review, and conducting analyses, under guided supervision. Students can select which components they will engage in based on their actual needs.

6. Conclusion

This study addressed an important gap in literature by examining undergraduates' RSE and RI. It found that while the Vietnamese students demonstrated moderate levels of RSE and RI, they need support regarding research writing skills. The insignificant RSE-RI relationship suggested the provision of authentic research experiences to help students build their RSE and RI in personal performance. The study is not without limitations. The data were drawn from a questionnaire and were therefore subject to potential biases of self-reported instruments. Researchers may want to employ additional instruments, such as students' research work or research diaries, to get more insights. Besides, the use of the convenient sampling method may reduce the generalizability of the findings; thus, other methods of sampling should be employed in future studies. In addition, participants in this study came from one single university, which may have limited the diverse perspectives of students. Researchers may want to replicate this study across multiple universities to capture more institutional and discipline perspectives.

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