



**AN INVESTIGATION INTO EFL UNDERGRADUATE
STUDENTS' RESEARCH COMPETENCE DEVELOPMENT
AT UNIVERSITY OF FOREIGN LANGUAGES AND
INTERNATIONAL STUDIES, HUE UNIVERSITY, VIETNAM**

**Vo Thi Tieu My¹ⁱ,
Truong Vien²**

¹Hue University of Foreign Languages
and International Studies, Vietnam

²Assoc. Prof. Dr.,
Hue University of Foreign Languages
and International Studies,
Vietnam

Abstract:

This study aimed at exploring EFL students' attitudes towards doing research at the undergraduate level, the perceived practice of research competence and the factors facilitating the development of research competence. The population of the study was EFL undergraduate students studying at University of Foreign Languages and International Studies, Hue University. The sample of the study comprised 120 second-year, third-year and fourth-year students majoring in English Language Teaching and English Language Studies. The data was collected through questionnaires and semi-structured interviews. The results show that EFL students thought that doing research is important to their future career path, but they were not confident to do their own research. In terms of EFL students' perceived practice of research competence, thinking of a research topic and writing theoretical background posed challenges for EFL students, while using PowerPoint to present their research was the activity, they felt most confident to do. The participants did not show entire support for the role of the library and the faculty in facilitating the research competence development at a high level. These findings imply that the library and the faculty should provide more various databases for students as well as opportunities to be familiar with doing research.

Keywords: research competence development, EFL undergraduate students, facilitating factors

ⁱ Correspondence: email tieumy.tmvt@gmail.com

1. Introduction

In light of globalisation and modernisation, students in the field of science and technology are more and more getting involved in the process of professional development. Carrying out research can be extremely useful for students because they will be able to gain various skills that are essential for their future work and study. As a result, acquiring several sets of fundamental research competence should be noticed and invested. It would take a long time to effectively learn and practise certain skills in the process of doing research. However, the students may find it difficult and have no interest in this process due to the lack of specific research theories as well as skills. Willison & O'Regan (2007) demonstrated that students may not understand the relevance of research skill development to future careers and are frequently left to construct their own sense of coherence from various research experiences during their studies. In Viet Nam, there are not many studies which can help to raise undergraduates' awareness of research competence development. In fact, at Hue University of Foreign Languages and International Studies (HUFLIS), since the syllabus does not require all of the students to do research as a condition for graduating, there are not many students encouraged to do it. Developing research competence can be seen as a big challenge for undergraduate students when it comes to carrying out research on their own. Therefore, gaining insights into students' attitudes and finding out what factors can be beneficial for their research competence development are primarily vital.

1.1 Research Questions

The present study tries to answer the following questions:

- 1) What are undergraduate students' attitudes towards doing research at HUFLIS?
- 2) What is the reality of research competence perceived by undergraduate students at HUFLIS?
- 3) What would facilitate undergraduate students to develop research competence at HUFLIS?

2. Literature Review

2.1. Definitions of Research

Swindoll (2012) defined that research could be referred to as the process of gathering necessary and relevant information, and then scrutinising the collected data to gain a thorough understanding of the problems and find solutions to those under study. It is an attempt to solve a problem. Data in the research is gathered from primary sources for a new purpose. The research is based on empirical evidence. It requires accurate observation, and the description should be correct and true. The main aim of the research is to find an unbiased solution to the problem. Beckman & Hensel (2009) stated that undergraduate research is primarily concerned with fostering student learning, the

emphasis may be on assisting students in moving along a developmental trajectory in the practice of research.

2.2. Content of Research Competence

Ponomarchuk (2009) defines research competence as total readiness of the graduate for the research professional activity connected with in detail and purposefully made receiving new knowledge. According to Ismuratova et al. (2018), research competence requires a systematic approach in applying the ability to capture the observed phenomena, analyze data, make generalizations and conclusions, refine and correct them with the appearance of new data, changes in scientific approaches, or refinement of the hypothesis. Additionally, in order to define research competence, Wester & Borders (2013) suggested a list of research competence for scholars in the counseling field including: (a) knowledge about the trends of the field, (b) research design and methods, (c) data collection procedures, (d) understanding the relationship among the research processes, (e) limiting bias and increasing objectivity, and (f) enhancing applicability. These fields are considered as necessities of developing research competence.

2.3. The Necessity of Developing Research Competence for Undergraduate Students

Developing research competence for undergraduate students is really important nowadays in universities. First, according to Ismuratova et al. (2018), the formation of research competence occupies an important place in the educational process, both during class time and in extracurricular hours. Research competence is a means of gaining new knowledge, acting as a guideline in determining the direction of one's activity, a means of self-cognition and self-improvement, a support for self-realization and self-assertion through the use of this knowledge in practice. Second, the present day specifies more requirements for a person's ability for self-improvement and self-development, and professional and social mobility, to the level of intellectual development as these qualities determine human value as a personality and as an expert in modern society Biktagirova & Valeeva (2013). Third, according to Showman et al. (2013), within the necessary skills for the undergraduate to develop effective conduction of research, there is a set of special traits that help the student to solve, in a successful manner, a research problem. These traits are: being organized, good judgment, effective communication, being creative, and being persistent. All of these necessary skills have equal importance for the student, progressing from learning how other people make discoveries, to making discoveries of their own. Therefore, it is necessary to facilitate the process of developing research competence for undergraduate students.

2.4. Research Competence Practice

Nenty (2009) mentioned that young researchers always encounter problems designing and carrying out their first study which usually is their project, thesis or dissertation. Some who are not properly guided or supervised get frustrated and drop out of their programmes because of these problems. In addition, Jamieson & Saunders (2020) noticed

that the attempt to achieve a resemblance of research competence in the classroom setting is challenged by the need to reflect what actually occurs in the natural environment and the workplace. In a study by van der Linden et al. (2012), the student participants perceived that they developed their knowledge and skills more in science-oriented topics and less in research methods and research designs. This difference can partly be explained by the aim of the introductory course, which was to combine the simultaneous development of attitude, knowledge and skills. The knowledge and skills of the science-oriented scale are strongly related to aspects of a positive attitude towards research.

2.5. Previous Studies

There are several studies which were conducted to explore the development of research competence. In a study related to undergraduate research, Wilmore & Willison (2016) examined the attitudes of graduates to the development of research skills during their studies and noted that it is important that media-educators understand how their students' differing career destinations immediately after graduation influence formal and informal evaluations of the quality of their course. The researchers concluded that this educational challenge is best addressed by implementing a consistent framework for research education that improves students' metacognitive awareness of the transferability of this graduate attribute across multiple industries and career destinations. In the study of Jamieson & Saunders (2020), they aimed to examine research competence in undergraduate and graduate research classes that included targeted soft and hard research skills as well as to identify and assess key strategies designed to demonstrate research competence. It was found that, to some extent, isolated and specific whole-part-whole, in-class and in-field assignments for the individual student or students within small groups, might allow students to develop the hard and soft skills necessary to become competent as researchers or their chosen profession. Epstein et al. (2021) presented their results in the study on the analysis of research competences among medical graduates with the newly developed Munich Medical Research Competencies Scale that was piloted at the medical faculties in Bavaria. The results illustrate that research competencies in medical graduates were in need of development, especially in the areas of study design, implementation, and interpretation. Indah et al. (2022) conducted a study about research competence of Indonesian EFL learners and showed typical competence in using internet resources for the student's research projects and being able to decide which data or sources or materials to address the research questions.

Unfortunately, there are still very few studies that provide an insightful view into the practice and development of research competence around the world. In Viet Nam, studies related to research competence are rare. Moreover, there is also a lack of the participation of EFL undergraduates in previous studies. The investigation into EFL students' awareness of research as well as research competence, and their perceptions in the development of research competence in order to provide a firm base for supporting students appropriately are not paid much attention. Therefore, the current research study hopes to fill these research gaps.

3. Methodology

3.1. Research Design and Setting

According to Rowley (2014), research questionnaires may be distributed to the potential respondents by post, e-mail, as an online questionnaire, or face-to-face by hand. Rowley (2014) also states that questionnaires are mostly used in conducting quantitative research, where the researcher wants to profile the sample in terms of numbers (e.g., the proportion of the sample in different age groups) or to be able to count the frequency of occurrence of opinions, attitudes, experiences, processes, behaviours, or predictions. Hence, this survey research study was conducted using 5-point Likert scale questionnaires to investigate EFL students' perceptions on research competence development and to find out what factors can help undergraduate students in their process of doing research. This study was conducted at the English Department of University of Foreign Languages and International Studies, Hue University.

3.2. Participants

The participants of the questionnaire were 120 EFL students at the Faculty of English, University of Foreign Languages and International Studies, Hue University. Specifically, there were 59 second-year students, 31 third-year students and 30 fourth-year students assuming that they had taken the course Research Methodology. The proportion of females to males was eight (80%) to two (20%). Most of the students (70.8%) majored in English Language Study, while the percentage of English Language Teaching-majored students was 29.2%. In terms of the English proficiency of participants, the proportion of students at B2 level was the largest, with 52.5% and followed by that at C1 level was 36.7%. The rest (10.8%) was at B1 level.

3.3. Instruments

In this study, the questionnaires were chosen as a research instrument. The questionnaires were designed based on the pattern of the 5-point-Likert scale which comprises responses from strongly disagree (1), disagree (2), neutral (3), agree (4) to strongly agree (5). The questionnaire has three parts in correspondence with the three research questions.

Table 1: Three main clusters of the questionnaire

| Cluster | Number of items |
|---|-----------------|
| Cluster 1: EFL students' attitudes towards doing research | 13 |
| Cluster 2: EFL students' perceived practice of research competence | 19 |
| Cluster 3: Factors facilitating EFL students' research competence development | 9 |

3.4. Procedure

The data collection procedure of this study includes the following steps. The questionnaires were delivered to 120 English-majored students of University of Foreign Languages and International Studies, Hue University both offline and online (via Google

Forms). In terms of doing the questionnaires offline, the questionnaires took about thirty minutes, including five minutes of explaining and collecting the questionnaires. The language of the questionnaires is English. The time for conducting the questionnaires was estimated carefully to ensure the process of completing questionnaires to be done effectively. The quantitative data collected from the questionnaires were analysed by SPSS software version 20.0. The questionnaire was piloted with 10 participants. And Cronbach's Alpha was .908, so the questionnaire was reliable enough for official use in this study.

4. Results and Discussion

4.1. Mean Scores of Three Surveyed Clusters



Figure 1: Mean scores of three main clusters in the questionnaire

The figure compares the mean scores of three main clusters of the questionnaire after conducting the survey with 120 participants. It can be seen from the chart that the mean score of Cluster 3 – “Factors facilitating the development of research competence in EFL students” ($M_3=3.94$) is the highest, followed by that of Cluster 1 – “EFL students’ attitudes towards doing research” and Cluster 2 – “EFL students’ perceived practice of research competence” ($M_1=3.48$ and $M_2=3.39$, respectively). It is clear that the items in Cluster 3 are supported more than those in Cluster 1 and Cluster 2.

4.2. EFL Undergraduate Students’ Attitudes towards Doing Research

4.2.1 Quantitative Data About EFL Undergraduate Students’ Attitudes towards Doing Research

One Sample T test and Descriptive Statistics were run to analyse EFL undergraduate students’ attitudes towards doing research.

Table 2: One Sample T test of Cluster 1

| One-Sample Statistics | | | | | | |
|-----------------------|------------------|--------|-----------------|-----------------|---|--------|
| | N | Mean | Std. Deviation | Std. Error Mean | | |
| Mean of Cluster 1 | 120 | 3.4788 | .43929 | .04010 | | |
| One-Sample Test | | | | | | |
| | Test Value = 3.6 | | | | | |
| | T | Df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Mean of Cluster 1 | -3.021 | 119 | .003 | -.12115 | -.2006 | -.0417 |

One-sample T test was carried out to examine whether there was a difference between the level of EFL students' attitudes ($M=3.48$ at a medium level) and the test value of 3.6, which is the accepted mean score for high level (Oxford, 1990). The results manifested a significant difference between the sample mean and the test value 3.6 ($t = -3.021$, $df = 119$, $p = .003 < .005$). In conclusion, EFL students' attitudes were at a moderate level.

Table 3: EFL undergraduate students' attitudes towards doing research

| Statements (N=120) | Mean | SD |
|--|------|------|
| 1. Doing research is interesting. | 3.51 | .789 |
| 2. Doing research is important for undergraduate students. | 3.97 | .697 |
| 3. Experiences in doing research can facilitate my future career path. | 4.04 | .782 |
| 4. I am confident to do my own research. | 3.00 | .935 |
| 5. A good undergraduate student is the one who can conduct research. | 3.51 | .879 |
| 6. I want to participate in a research project at university. | 3.47 | .925 |
| 7. I am able to handle my difficulties in doing research. | 3.37 | .870 |
| 8. I can conduct research independently. | 3.03 | .948 |
| 9. I can work in groups effectively for doing research. | 3.76 | .840 |
| 10. I can grasp all the research methods firmly. | 3.33 | .735 |
| 11. I know all steps of doing a research project from the course Research Methodology. | 3.56 | .960 |
| 12. I can classify and structure all materials and data properly for my research. | 3.34 | .761 |
| 13. I have gained all skills to be capable of conducting my own research. | 3.35 | .895 |

From Table 3, it can be indicated that the mean score of EFL students' attitudes was moderate ($M=3.48$). The results from the Descriptive Statistics Test show that the mean values of the statements "*Experiences in doing research can facilitate my future career path*" and "*Doing research is important for undergraduate students*" were the highest ($M=4.04$ and $M=3.97$, respectively). The majority of students believed that doing research played an essential role in their career development. However, the results also show that the mean scores of the statements "*I can conduct research independently*" ($M=3.03$) and "*I am confident to do my own research*" ($M=3.00$) were the lowest, which indicate that doing research was still a difficult activity for the students to do.

4.3. EFL Undergraduate Students' Perceived Practice of Research Competence

4.3.1 Quantitative Data about EFL Undergraduate Students' Perceived Practice in Research Competence

One Sample T test and Descriptive Statistics were run to analyse the perceived practice of EFL undergraduate students in research competence development.

One-sample T test was analysed to examine whether there was a difference between the level of EFL students' perceived practice in research competence ($M=3.39$ at a medium level) and the test value of 3.6. The results manifested a significant difference between the sample mean and the test value 3.6 ($t = -6.113$, $df = 119$, $p = .000 < .005$). To conclude, EFL students' research competence perceived practice was moderate, which indicates that the reality of practising research competence by EFL students in this study was at the moderate level. The Descriptive Statistics test was conducted to find out the mean score of the reality of practising research competence of 120 EFL students. Table 4 presents the mean scores of items in Cluster 2.

Table 4: EFL undergraduate students' perceived practice of research competence

| Statements (N=120) | Mean | SD |
|--|------|-------|
| 1. I could come up with my research topic quickly. | 3.08 | .856 |
| 2. I found it hard to think of a research topic. | 3.70 | .866 |
| 3. I could handle the title to suit my purpose of research. | 3.49 | .710 |
| 4. I knew the framework of the research. | 3.53 | .635 |
| 5. I was able to write the theoretical background without any difficulties. | 2.91 | 1.021 |
| 6. I could search, read and analyze related studies effectively. | 3.28 | .799 |
| 7. I could identify gaps of research after reviewing previous studies easily. | 3.34 | .930 |
| 8. I could understand different types of methods and instruments. | 3.42 | .894 |
| 9. I used appropriate research methods and instruments in my research. | 3.55 | .720 |
| 10. I could design quantitative instruments such as the questionnaires. | 3.51 | .722 |
| 11. I could design qualitative instruments such as interviews or observation sheets. | 3.45 | .808 |
| 12. I could analyse quantitative data manually or by means of Excel. | 3.38 | .758 |
| 13. I could analyse qualitative data using relevant analysis methods such | 3.25 | .833 |
| 14. as using SPSS, thematic analysis, etc. | | |
| 15. I was able to write the discussion confidently. | 3.23 | .786 |
| 16. I could find out implications and limitations in my research. | 3.28 | .769 |
| 17. I was able to do in-text citations in my research. | 3.47 | .733 |
| 18. I could present and arrange the reference section fully and appropriately | 3.52 | .733 |
| 19. as required. | | |
| 20. I could present my research orally by using PowerPoint. | 3.70 | .705 |
| 21. I could write an article from my research. | 3.32 | .879 |

From Table 4, it can be indicated that the mean score of EFL students' perceived practice was moderate ($M=3.39$). When it comes to Descriptive Statistics Test, it was shown that the mean values of the statements "I found it hard to think of a research topic" and "I could present my research orally by using PowerPoint" were the highest ($M=3.70$), which means that the students' competence in terms of using PowerPoint for presentations was high but finding a research topic was too difficult for the students. In addition, the table shows

that the mean value of the statement “*I was able to write the theoretical background without any difficulties*” was the lowest (M=2.91). This is the most noticeable point in the perceptions of practising the research competence from the students.

4.4. Factors Facilitating the Development of Research Competence in EFL Students

4.4.1 Quantitative Data about Factors Facilitating EFL Undergraduate Students' Research Competence

One Sample T test and Descriptive Statistics were run to analyse the factors facilitating EFL undergraduate students' development of research competence.

One-sample T test was analysed to examine whether there was a difference between the level of EFL students' research competence practice (M=3.94) and the test value of 4.5, which is the accepted mean score for very high level (Oxford, 1990). The results demonstrated a significant difference between the sample mean and the test value 4.5 ($t = -12.816$, $df = 119$, $p = .000 < .005$). To sum up, the factors facilitating EFL students' research competence were moderate, which means that the factors facilitating EFL students' research competence suggested in this study was also at a moderate level.

Table 5: Factors facilitating EFL undergraduate students' research competence

| Statements (N=120) | Mean | SD |
|---|------|------|
| 1. The supervisor is thoughtful and enthusiastic. | 3.95 | .696 |
| 2. The supervisor takes care and is willing to provide support regularly. | 4.14 | .612 |
| 3. The faculty facilitates students in supporting them physically and mentally. | 3.87 | .709 |
| 4. The faculty provides students with a variety of reference materials. | 3.88 | .826 |
| 5. The library system at university offers different kinds of books as well as a wide range of databases. | 4.03 | .766 |
| 6. The resources in the library can be accessed offline as well as online. | 3.96 | .883 |
| 7. The database in the library is updated constantly. | 3.76 | .840 |
| 8. The faculty organizes seminars and workshops providing useful and practical information on doing scientific research for students. | 3.80 | .816 |
| 9. Friends are helpful during the process of research. | 4.10 | .782 |

It can be indicated from Table 5 that the mean score of the factors facilitating EFL students' research competence was quite high (M=3.94). Specifically, table 5 shows that the mean values of the statements “*The supervisor takes care and is willing to provide support regularly*” and “*Friends are helpful during the process of research*” were the highest (M=4.14 and M=4.10, respectively). Most of the students believed that supervisors and friends were factors that could facilitate their research process on an extensive level. Meanwhile, the students thought that updating the database in the library constantly was not considered as important as other factors, which is shown in the table with the mean value of the statement as M=3.76.

4.5. Discussion

4.5.1. EFL Students' Attitudes towards Doing Research

The results obtained from the questionnaire regarding EFL students' attitudes towards doing research are quite positive. It can be seen from the findings that most of the students engaged in the questionnaire agreed that doing research plays an important role for undergraduate students and is helpful for their career path. These findings are similar to those that Tran (2021) found in her study. The sample in this study was also EFL students, so these findings truly reflect the reality. EFL students in different university years share the same viewpoint in terms of the importance of research. However, another noticeable finding is that the students were not confident about the research process in spite of being aware of the importance of doing research. The EFL students found doing research difficult and could not do their own research. This is comparable to the result in the study of Murdoch-Eaton et al. (2010), which showed that the medical students need a realistic understanding of the research process. Most of the students claimed that they could not do the research on their own. Also, they could not grasp all the research methods. Hence, for students, conducting research is still a thing that needs more support as well as encouragement to do.

4.5.2. EFL Undergraduate Students' Perceived Practice of Research Competence

In terms of the perceived practice of EFL students' research competence, the results from the questionnaire are relatively unfavorable. It indicates that writing theoretical background was the most problematic part for students in doing research. The result in this study also shows that the students found it not easy to identify gaps in the previous studies for their research. According to Hair et al. (2001), there are three basic purposes in a research study, namely, the provision of a conceptual framework for a research study; serving as a vehicle for incorporating prior knowledge; and linking research to the larger body of knowledge in the area of the problem. Therefore, it may be difficult for students to write the theoretical background appropriately.

Additionally, the findings in this study reveals that the students were not sure about their ability to write the discussion. In fact, Skelton & Edwards (2000) stated in their study that a discussion cannot simply repeat the results as they seem beforehand or it is tautologous. Students might need to spend much time thinking and reinterpreting the significant points from the findings. Thus, in the process of writing, the students may need help from their supervisors and other sources in order to keep track of the right way.

4.5.3. Factors Facilitating EFL Students' Research Competence

The results from the questionnaire about factors facilitating EFL students' research competence are highly positive. As can be seen, the result illustrates that the supervisors play a fundamental role in the development of students' research competence. In fact, Niemi & Nevgi (2014) indicated in their study that prospective teachers understand the need for the development of research skills and see this as a benefit to professional

development. It is the fact that teachers can provide various useful and reliable advice because they may have many years of experience in research. The students may feel more confident to do their research if they get adequate support from their supervisors.

Another striking finding is that the databases in the library were considered as a significant factor that could help the students during their research process. The finding manifests the importance of databases, which can contribute to the development of students' research competence. However, the findings also show that the databases were insufficient and useful to meet the students' need to do research, and this should be improved. In addition, the faculty's support was not highly appreciated. This finding seems to demonstrate the lack of the connection between the faculty and students during the process of doing research.

5. Recommendations

5.1. Recommendations for Students

As revealed in the results of this study, it is crucial to raise students' awareness of the benefits of doing research for their professional development. Then, students will be more eager to take part in more research activities at university. From that, they can have more opportunities to learn a variety of academic knowledge and even get to know other researchers who may have a lot of experience in doing research. Also, it can be concluded that undergraduate students have difficulties in writing theoretical background and discussions. Hence, it is fundamental for students to regularly read and synthesise documents. Furthermore, they should practise their analytical skill to analyse and connect prior knowledge to the specific problem in their research in a logical way. As a result, students can feel more confident when engaging in research activities. Students will try to learn and practise to become good researchers in the near future.

5.2. Recommendations for Teachers

In order to help students with the issues they may have during the process of research, there are several implications for teachers. Firstly, teachers should suggest the revision of the curriculum at university. It should be tailored by adding more research courses that help students concentrate on developing these skills. Besides, seminars related to doing research should be organised more regularly so as to encourage students to take part in research activities and boost their confidence in conducting research. Specifically, a wide range of research activities should be designed based on the students' needs and proficiency of doing research. Another issue in this study is about the lack of a variety of reference materials, then it is necessary for the faculty and the library system to provide a system of various and abundant databases. The access to the database should also be upgraded. From that, students can gain more confidence and have a desire to do research as a firm foundation for their further professional career path development.

6. Conclusion

The findings showed that doing research is considered as an important thing for the development of the professional career path by most of the participants. Nevertheless, the students were not confident in their ability to conduct their own research. Most of the participants agreed that writing literature review was the most challenging. Another issue is that the students found data analysis difficult and tried to find different materials. The students took advantage of the availability of previous studies and help from the supervisors in doing their research. The findings emphasized the importance of the supervisors to the development of research competence. Another factor concerned most was the reference materials, but the findings drew great attention to the fact that this factor was not appreciated by the students.

This study was completed in a short time, so there are several possible limitations. There is a limitation in the number of participants and the study was conducted at only one department of an institution. In addition, there is also a lack of the knowledge as well as experience of the researcher in doing research. For further studies, some suggestions can be considered from this study. There should be more participants taking part in the research and there should be research on the development of research competence of students of other majors in order to increase the reliability and validity of the results. Hence, it can help us have a comprehensive overview on this research issue.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Vo Thi Tieu My is an English teacher in Hue City, Vietnam. She is currently completing her Master's Degree in Theory and Methodology of English Language Teaching at University of Foreign Languages and International Studies, Hue University. Her research interests include learning and teaching skills, and research skills.

Truong Vien is an Associate Professor, University of Foreign Languages and International Studies, Hue University, Vietnam. His research interests include second language acquisition, professional development, service learning, and pragmatics.

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