TÜRK FEN EĞİTİMİ DERGİSİ Yıl 17, Sayı 4, Aralık 2020



Journal of TURKISH SCIENCE EDUCATION Volume 17, Issue 4, December 2020

http://www.tused.org

# Why Students Find It Difficult to Finish their Theses?

Sussy BAYONA-ORÉ<sup>1</sup>, Ciro BAZAN<sup>2</sup>

<sup>1</sup> Prof. Dr. Dirección de Investigación, Universidad Autónoma del Perú, Lima-PERU, ORCID ID: 0000-0001-7133-9106

<sup>2</sup> Prof. Dr. Dirección de Investigación, Universidad Autónoma del Perú, Lima-PERU, ORCID ID: 0000-0003-0890-674X

**Received:** 26.05.2019 **Revised:** 05.04.2020 **Accepted:** 14.12.2020

The original language of article is English (v.17, n.4, December 2020, pp.591-602, doi: 10.36681/tused.2020.47)

**Reference:** Bayona-Oré, S. & Bazan, C. (2020). Why Students Find It Difficult to Finish their Theses?. *Journal of Turkish Science Education*, 17 (4), 591-602.

# ABSTRACT

This study focuses on the reasons why students from private universities who have finished their studies, but not their research work, a requirement to obtain their degree. Several studies agree that the supervision process is a fundamental factor to complete the thesis successfully. Thesis development and successful thesis completion are conditioned by a number of factors, one of which is supervisor performance. This study explores the limitations on supervision, time, and money, which are resources students need in order to finish their theses, and suggestions for improvement. The sample of the study consisted of 129 graduate candidates from different careers at a private university in Peru. The findings show that lack of supervision during the thesis development process, lack of time to develop the thesis and finance have an impact on finishing a thesis. Supervisors must have cognitive competences in scientific methodology, statistics, and the research topic, and help the students to transition from course work to independent research.

Keywords: Barriers, limitations, supervisor performance, thesis, supervision.

# **INTRODUCTION**

In Peru, during the last decade, the number of students pursuing higher education has increased substantially, from 101,000 in 2000 to 391,000 in 2015 (SUNEDU, 2018). Admissions to a total of 143 public and private universities in 2018 (SUNEDU, 2018a) not only provided the opportunity for the successful completion of a professional career, but also quality education. Academic success is the end goal that is influenced by different components (Woodrow, 2006). Singh (2017) said that success can also be measured in terms of non-tangible indicators such as the development of research skills, personal growth, and contribution to one's country.

In Peru, several initiatives have arisen in favor of quality education in universities, such as the institutional licensing of universities by the National Department of University

Correspondence author e-mail: <a href="mailto:sbayonao@hotmail.com">sbayonao@hotmail.com</a>

Education (SUNEDU), the National System of Evaluation, Accreditation and Certification of Educational Quality (SINEACE) in charge of the requirement process of university careers and regulations such as the University Law Number 30220 (2014), which requires students to develop a research project to complete their studies. The universities that did not offer courses on research development have adapted their curriculum to integrate these to support students in their theses. The thesis, the last formal step to complete a professional career, is a process that involves scientific production, but few students finish their research. However, despite the existence of a bibliography of research methodology and courses designed to develop the thesis, the thesis development process is difficult. Several authors agree that the learning outcomes associated with the research methods courses of are lower than expected (Daniel, 2017; Murtonen, 2015).

One of the main agents of thesis development process is the supervisor who guides the student. However, the role of the undergraduate research supervisor depends on several factors, principles, and beliefs because it is not clearly defined (Blair, Watson & Raturi, 2019). According to Strebel et al. (2019), thesis supervision requires more guidance as opposed to more autonomy and freedom for students as well as support to define the objectives at the beginning of the thesis project. Supervision is influenced by sociocultural realities and an absence of specific supervisory training. In this process, mentorship and collaborative research are necessary to help novice researchers understand that it is normal to feel vulnerable and experience self-doubt (Kirk & Lipscombe, 2019). Lee (2007) supports the thesis that assessment should be given more attention than it actually is. While the writing and the defense of the thesis seem to have been neglected by the researchers (Mushoriwa and Nyakutse, 2014), there are other factors such as lack of time, lack of supervisors or time the supervisors have to review the thesis that influence the non-completion of the thesis (INEI,2010). In this regard, several studies consider that the thesis supervisor is a factor that influences the successful completion of the thesis (Roach et al., 2019; Prasad, 2019); These studies highlight the relationship between the thesis and the supervisor as a critical factor for students to complete their degree.

One relevant aspect is the time that takes a supervisor to supervise students' research work. Internal variables refer to knowledge of the subject, time and dedication of the student to develop the thesis, and external variables such as material and economic resources or feeling overwhelmed because the work is also a crucial requirement as mentioned earlier. Also, these factors are classified as personal factors that are related to motivation, attitude, interest, time dedicated to preparing the thesis, and institutional factors such as permanent supervision and use of library. Scientific quality (knowledge), technical qualities (abilities) and human attitudes have also been mentioned as characteristics of ideal supervisor. According to Torres & Cristancho (2018), the students who acquired critical thinking, communication and problem solving have the ability to discuss information and make creative decisions. For that reason, the new students' science knowledge, skills, and attitudes need to be taken into consideration at the beginning of any new academic year (Kan'an, 2018).

In terms of resources, lack of time and budget, and the mechanisms for better supervision put students at greater risk who do not have a job or any income. According to Blanchard & Haccoun (2019) external factors such as financial and family constraints can explain why successful students so frequently fail to graduate. In this regard, several studies emphasize that the relationship between student and supervisor in the supervision process is critical to completing the thesis successfully (Hodza, 2007; Bayona, 2018; Strebel et al., 2019; Blanchard & Haccoun, 2019).

Other aspects that do not conform to the profile of the academic program are services provided to the student, access to bibliography and individual characteristics of students. Studies on determinants to complete the research using the qualitative approach and a few

contemporary studies analyze the factors of success and failure related to thesis works. Existing studies focus on completion rather than non-completion variables (Ishitani, 2006). Roberts and Seaman (2018) agree that the practice of undergraduate dissertation supervision is an understudied area in higher education. According to Blair, Watson & Raturi (2019), the extent to which supervisee differences affect the supervisory process is not yet widely recognized. In the literature, few studies have been carried out into the reasons why the students at universities in Peru do not complete their theses.

This study focuses on the reasons why students at a private university in Peru do not complete their research work. It attempts to answer the following question: What are the reasons why the students who have finished their studies do not finish the thesis?

This study aims to provide input for educators, supervisors and the supervised-on issues in thesis development. Once these are known, it is essential (1) to promote student learning and to help reducing the number of students that have completed their studies, but have not obtained their degree, (2) that the information provided be used to improve the curriculum and teaching-learning strategies, considering that from 2020 all students must finish their studies, including the thesis and (3) that the information contribute to a repository on research supervision and the need for supervisors to adapt to students' needs.

### BACKGROUND

The thesis is a rigorous and systematic process of scientific research to obtain an academic degree, and to contribute to the field of research. This process has been examined from four aspects: (1) Informative, that is, relating to the state of the art and critical analysis of the information, (2) methodological-logical, relating to the knowledge and the application of the methods to develop the thesis, (3) technology that has to do with the use of technology such as word processors, spreadsheets and tools for the exploitation of data, and (4) communicative, relating to the competencies to establish a structure and content, thesis organization and grammar (Bayona, 2018).

In the process of developing the thesis, an important actor is the supervisor who provides supervision and guidance to the student to help him or her to complete the thesis. Supervision is a training process that aims to generate knowledge and is influenced by several factors that called as "multiplicity" by Bijon & Villiers (2013). In this process, an intense and interpersonal relationship is created between the supervisor and the student in a complex process influenced by technical, social, and organizational factors (Hodza, 2007). The lack of a supervision as guidance, called "isolation", which has been another studied factor. This term refers to students who perceive that they are alone, without emotional help or affection to continue with their studies and can appear at any point of the process.

The supervisor is the person who helps the student with his or her research and supports a teaching-learning relationship with one or more colleagues or students. He or she is expected to evaluate the thesis in a critical and constructive way, does not do the thesis for the student, and provides time, experience, and support. This process has been denominated as complex (Hodza, 2007) and must be taken into account.

# Supervised Performance

Individual, institutional factors and characteristics of the programs to prepare the student to develop the research have been mentioned as limiting factors for the successful completion of the thesis. The individual factors are related to the individual characteristics of the student, which are as important as, or more important than the work of the supervisor. A supervisor, however competent, will not achieve the objectives set if the student is not dedicated to the thesis, and does not do/carry out the activities assigned during the supervision process.

Likewise, personal attributes, such as disciplined, dedicated, responsible, and selfmotivated are mentioned in the literature as positive aspects that allow the student to complete the thesis within the established deadlines (Nachatar, 2018). That is to say, successful completion of the thesis on time is conditioned by the personality of the student and by having disciplined as the most important attribute. Also, independent learning to conduct research work, having good knowledge of research and aspects such as the relationship between the supervisor and the student, the frequency of communication, and the student's assumption of responsibility are mentioned in the literature. Finally, the student is required to develop other aspects such as writing and communication skills.

#### Limitations

Researchers are concerned about students not completing the thesis at the undergraduate level. Some reasons mentioned by the students are health (illness, pregnancy), psychological, demands of public or military service, lack of motivation, difficulty in choosing a topic, lack of a topic (interesting or important, current, original), research is boring, research works are inadequate, research is stressful, lack of time, lack of supervisor, they do not pay attention to supervisor, insufficient bibliographic information, lack of materials (equipment, environments, etc.), lack of support staff, lack of financial resources or anomalous perfection.

Some students mention inability to balance personal life and professional activities, while others do not want to balance or even sacrifice from important areas of their personal lives. In the latter case, the decision is intentional and conscious, but it affects them because there are external pressures (for example, legal frameworks). Another factor is the lack of initiatives on the part of the institution to encourage graduates to complete their theses.

## METHOD

## a) Research Design

In this research, the perceptions of students about the limitations on supervision process of the thesis in graduate programs is analyzed using the quantitative research method to measure the variables. The application of the variable is transversal because the data was collected at a single moment.

### b) Participants

The population of the current study consists of all students who completed the university courses offered by a private university but has not finished the thesis. The population consisted of 413 (male=77% and male=23%) students from different careers corresponding to the 2012-2017 period.

The number of participants were selected from a list of students corresponding to the 2012-2017 period. The selection criteria were: (1) had finished their studies in the last 6 years, and (2) have not completed thesis. The non-probabilistic sample was applied; 132 students were asked to complete a questionnaire. The majority of participants are students from systems engineering career. All the information gathered was kept strictly confidential. The study was conducted on September 9 and 26, 2017.

# c) Data Collection

Researchers in this study prepared a questionnaire (Q1) as an instrument to collect data. The questionnaire consists of three modules: (1) the first part was oriented to understanding why the students had not submitted their thesis, (2) the second to the resources necessary to development their theses, and (3) the third to the aspects that must be improved at the organizational level (an open question so that participants could express their observations). In order to ensure the internal validity of the instrument two experts who are expert in the field of supervision and one teacher of statistics, examined them Google forms was used to create online questionnaire because it facilitated of target respondents could be reached via email. Table 1 shows the questions included in the questionnaire to determine the opinions about limitations to start and optimize the process development thesis, and the variables related to the questions in the data collection tool.

Instrument	Module	Variables		
Q1	First. What are the main reasons why you haven't started the thesis development process?	Time, Supervision, Fund, Prerequisites, Topic		
	Second. What resources do you need to start the thesis development process?	Methodological supervision, Statistical supervision, Thematic supervision, Time, Fund		
	Third. What would you suggest to the University to optimize the thesis development process?	Course, Supervision, Time, Support, Fund		

 Table 1. Variables of the instrument

Participants were contacted by e-mail, inviting them to answer the questionnaire, which was available for 15 days. During this period three reminders to complete and return the questionnaire were sent to the participants. Of the 132 completed questionnaires, three were discarded in the review process due to incomplete information.

# d) Data Analysis

The responses to the closed questions were imported into SPSS package program to analyze the data. The data analysis was carried out in three stages, and each stage directed at the answer to one of the research questions. The data were quantitatively analyzed through such descriptive statistics as percentages and frequencies. The study set out to answer the following questions:

What are the limitations to complete the thesis and obtain the degree?

What are the resources necessary to complete the thesis and obtain the degree?

What organizational improvements do you think are necessary?

# RESULTS

The results correspond to 129 participants who had completed their studies but have not finished the thesis. Figure 1 shows the distribution of those who participated in the survey by year of completion of their studies. Most of the participants (65.2%) are from the 2016-2017 period.

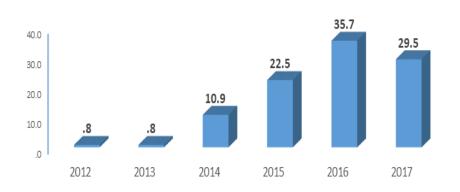


Figure 1. Participants by year who have finished their studies

#### What are the limitations to complete the thesis and obtaining the degree?

The reasons that the participants gave for not completing the thesis were related to time, supervision aspects, financial problems, and prerequisites. According to the results, 58.9% of the participants mentioned that lack of time is a reason for not completing the thesis. Students start working on their theses very early. Likewise, before completing their studies they must have completed pre-professional practices. Supervisory problems were mentioned by 40.3% of the participants. The presence of the supervisor as a guide in the thesis development process has been mentioned in several studies as a critical success factor as well as the need to have supervisors with cognitive abilities (experience, knowledge, and experience in research), personal conditions and role function to develop students' research skills. 37.2% of the participants mentioned to financial problems. The process to get the degree requires time and money, which often are not available for students, considering that they have just started their professional experience when they reach the age of majority and pre-professional practices are mostly for the honor. Only 6.2% (8) of the participants consider pre-requisites as a reason for not completing the thesis.

<b>Table 2.</b> Reasons for not completing the thesis					
Resources	Yes	No			
Lack of time	58.9	41.1			
Supervisory problems	40.3	59.7			
Financial problems	37.2	62.8			
Prerequisites	6.2	93.8			

**Table 2.** Reasons for not completing the thesis

When analyzing the limitations for not completing the thesis, of the 59.7% of the total interviewees stated that they did not require supervision, 64.9% mentioned time limitations to develop the thesis, 40.3% underlined that they had financial limitations, and only 6.5% pointed out some pre-requisites. According to the participants who mentioned supervisory problems representing 40.3% of total interviewees, 50% also mentioned time limitations, 32.7% pointed financial limitations, and only 5.8% stated pre-requisites limitations (see Table 3).

Variable	Situation	Time		Money		Pre-requisites	
		Frequency	%	Frequency	%	Frequency	%
ľ	No	27	35.1	46	59.7	72	93.5
sior	Yes	50	64.9	31	40.3	5	6.5
No Supervision	Total	77	100.0	77	100.0	77	100.0
	No	26	50.0	35	67.3	49	94.2
vision	Yes	26	50.0	17	32.7	3	5.8
Need Superv	Total	52	100.0	52	100.0	52	100.0

**Table 3.** Supervision: time and money limitations

41.1% of the total interviewees (Table 2) who did not have time limitations, 49.1% have limitations in supervision, 39.6% mentioned to economic aspects, and only 9.4% stated having difficulties with pre-requisites. According to the students who have time limitations, which represents 58.9% of respondents surveyed, 34.2% require supervision, 35.5% have financial limitations, and only 3.9% mention limitations for pre-requisites (see Table 4). From the results, it can be concluded that about 50% of respondents surveyed experience difficulties because they do not have the time to develop a research. In the case of those, participants, who have enough time, have financial problems.

**Table 4**. Time: supervision and money limitations

Variable		Supervision		Money		Pre-requisites	
	Situation	Frequency	%	Frequency	%	Frequency	%
No Time	No	27	50.9	32	60.4	48	90.6
	Yes	26	49.1	21	39.6	5	9.4
	Total	53	100.0	53	100.0	53	100.0
Need Time	No	50	65.8	49	64.5	73	96.1
	Yes	26	34.2	27	35.5	3	3.9
	Total	76	100.0	76	100.0	76	100.0

The results of the survey show that 37.2% of respondents refer to financial issues as a limitation. It has been observed that 35.4% require supervision, 56.3% have time limitations and 4.2% pre-requisites limitations. Of the respondents who do not mention time limitation, 43.2% require supervision and 60.5% have time limitations (See Table 5).

		Supervision		Time		<b>Pre-requisites</b>	
Variable	Situation	Frequency	%	Frequency	%	Frequency	%
No	No	46	56.8	32	39.5	75	92.6
Money	Yes	35	43.2	49	60.5	6	7.4
	Total	81	100.0	81	100.0	81	100.0
Need	No	31	64.6	21	43.8	46	95.8
Money	Yes	17	35.4	27	56.3	2	4.2
	Total	48	100.0	48	100.0	48	100.0

**Table 5**. Money: supervision and time limitations

Considering the results, it can be concluded that, in order of importance, the time factor is a limitation to thesis development followed by the thesis supervisor. Financial issues becomes a problem for those graduates who have time.

# What are the resources necessary to complete the thesis and obtain the degree?

The participants' perceptions of the resources necessary to complete their theses were analyzed. As shown in Table 6, 61.2% of participants consider it necessary to have a methodological supervisor. The methodological supervisor supports the methodology for the development of the thesis. According to Stappenbelt & Basu (2019), undergraduate research is concerned with research method. The time resource appears as an important variable since 50.4% of the respondents consider the time factor a valuable resource. This result is related to the desire to have time since it is a limitation to finishing the thesis. Many participants work and/or perform pre-professional practices and time is valuable and rare. Also, 36.4% of the respondents mention the need to have a statistical supervisor, considering that the hypothesis in a research work requires the knowledge and the application of statistical techniques.

Resources	Yes	No
Methodological supervisor needed	61.2	38.8
Time	50.4	49.6
Statistical supervisor needed	36.4	63.6
Money	31.8	61.2
Thematic supervisor needed	16.3	83.7

 Table 6. Resources needed to conclude the thesis

Another factor that has been considered by the respondents has been the lack of money to complete the process. In this respect, 31.8% are agreed. To a lesser extent, but not less important, is the recourse to having a thematic supervisor. The thematic supervisor is the person who is a specialist in thesis research. Only 16.3% of the interviewed students considered the need to have a thematic supervisor. Table 7 presents the necessary resources to prepare the thesis for two groups: those who do not require supervision and those who require support.

	Situation	Methodological Supervisor	Statistical Supervisor	Thematic Supervisor	Time	Financial
Variable		%	%	%	%	%
No Supervision	No	49.4	74.0	84.4	42.9	64.9
1	Yes	50.6	26.0	15.6	57.1	35.1
	Total	100.0	100.0	100.0	100.0	100.0
Need	No	23.1	48.1	82.7	59.6	73.1
Supervision	Yes	76.9	51.9	17.3	40.4	26.9
	Total	100.0	100.0	100.0	100.0	100.0

 Table 7. Supervision and resources needed to develop the thesis

The results show that of the students who need supervision, 76.9% require a methodological supervisor, and 51.9% require a statistical supervisor. However, only 17.3% require a thematic supervisor. Likewise, 40.4% of the students have time to prepare the thesis and 73.1% do not have problems with financial issues.

# What are the organizational improvements according to the perception of the participants?

Figure 2 presents the results of the survey on the participants' perception of aspects to be improved to help them complete their thesis. The participants, who were interviewed,

importantly consider to have supervisors who have knowledge, skills, and experience in research. In addition, there should be no change in supervisor service because it hinders the thesis development process. 30.2% of respondents agree that the supervisor plays an important role, while 27.9% consider that they require a course or workshop on thesis development. 14.7% of the students believe that supervisors should improve the supervision process to help them achieve their goals. 13.2% believe that they should be supported in the process from the communication and greater talent in the administrative processes. In this case, the financial factor is only 7% and time represents 0.8%.

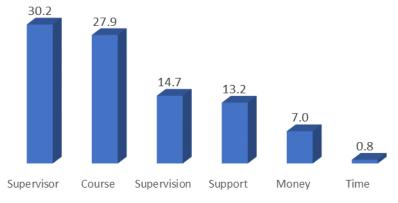


Figure 2. Students' perceptions of aspects to be improved

From the above, we can infer that the presence of the supervisor is important in thesis development and therefore there is a significant relationship between the supervisor and thesis development (Bayona, 2018) besides gratitude (Howells et al., 2017). A cloud of words (Figure 3) shows the need for improvements based on the perception of the respondents, who highlight the need for a supervisor, improve the supervision process and courses related to thesis development.



Figure 3. Cloud of words

# DISCUSSION

#### *Limitations to completing the thesis*

From the results, we can conclude that the time factor is a limitation to completing the thesis and this is because the majority of students work. Several authors argue that the thesis development process is complex and multifactorial and requires self-discipline, time

management and self-motivation on the part of the thesis student. Also, the thesis is an effort that requires knowledge, skills, abilities, determination, and aptitude for successful and timely completion (Agu & Oluwatayo, 2014). The supervisory problems are related to the supervision process, and the supervisor, who provides time, experience, and support to student. According to the literature, the failure of the supervisor is related to managing the negative feelings of the supervised. This explains why they stay in the middle of the process due to working alone, and lack of self-motivation, organization, and independence. The economic capacity of the graduate to cover the expenses associated with the qualification is another important factor.

## Resources necessary

The thesis development process is a complex process that is influenced by several variables. The presence of a guide or supervisor at each of the research phases is important, otherwise progress is slow. It is often a lonely task and, in some cases, it generates anxiety, disappointment, frustration or depression for not reaching the goal. The need for a supervisor to guide students in methodological aspects is greater than the need for a thematic supervisor. The latter tells us that the students know their subject of their thesis because of the knowledge acquired during the program. It is appreciated that while time is a limitation to developing the thesis, this is not the case with financial issues. The problems with limitations to completing the thesis range from having effective supervisors to money to cover the administrative process and the pre-requisites. The result shows that most participants know the subject but need support in the methodological and statistical aspects. For this reason, apart from research experience, supervisors must have methodological and statistical knowledge to guide students.

# Students' Perception of Organizational Improvements

The percentages related to having a supervisor as a guide during the thesis development (30.2%), the need for courses on thesis development (27.9%), and improving the supervision process (14.7%) have shown that students' research skills and abilities must be improved. A previous study (Strebel et al., 2019) has concluded that supervision has a measurable impact on thesis results, so does the capability of the students too. The satisfaction with methodological support, and support at the stage where the aim of the thesis is defined are factors that have a significant impact on the final thesis result. These aspects can be improved by assigning the same supervisor during the three cycles that the students do the courses oriented to thesis development. The need for a course on thesis development is related to the difficulty experienced by students in conducting a research alone and the need to be supported in this process. Unlike previous results, the perception of improving aspects related to financial issues is low (0.8%) in this case. So, it is important to improve the students' methodological capabilities to carry out scientific research. According to Prasad (2019), students have difficulties in selecting the most appropriate research methodology to conduct their research, collect data, or ensure the validity of the questionnaire. In some cases, verifying the hypothesis are mentioned as highly complex processes (Ochoa, 2012).

## **CONCLUSIONS**

The study is about the supervision process of the thesis in graduate programs. The study was conducted to investigate the limitations that explain why students finish their studies but not their theses, a syndrome that can be called as "All but thesis". There are several studies

that support this. This study is focused on finding out the problems graduate candidates who do not get thesis development support. In the present study factors related to the time needed to develop the thesis, the need for a supervisor, and economic aspects to continue the process have been identified. Prior to the emergence of the new university law, students opted for qualification courses rather than a thesis. With the new University Law, the students must carry out a research work to obtain the degree. A future work to identify the organizational, personal, and social factors that impact the development process of the thesis is pending. Finally, the thesis elaboration process requires a supervisor who can offer guidance in methodological, thematic, and statistical aspects, a thesis of interest and the student's selfdiscipline to make time to conduct the research. Also, it is important that some aspects such as argumentation, oral and written communication, and critical thinking must be developed by students.

# REFERENCES

- Agu, N., & Oluwatayo, G. (2014). Variables attributed to delay in thesis completion by postgraduate students. *Journal of Emerging Trends in Educational Research and Policy Studies*, *5(4)*, 435-443.
- Bayona, S. (2018). Supervisors performance and thesis development on information technology: Graduate students' perceptions. In *Proceedings of the 13th Iberian Conference on Information Systems and Technologies* (CISTI) (pp. 1-5).
- Bijon, J. & Villiers, M. (2013). Multiplicity in supervision models: The supervisor's perspective. South African Journal of Higher Education, 27(6), 1443-1463.
- Blair, A., Watson, D., & Raturi, S. (2019). Graduate Research Supervision in the Developing World; Policies, Pedagogies and Practices, 1st Edition, Kindle Edition.
- Blanchard, C. & Haccoun, R. (2019). Investigating the impact of advisor support on the perceptions of graduate students. *Teaching in Higher Education*, DOI: 10.1080/13562517.2019.1632825
- Daniel, B. (2017). Contestable professional academic identity of those who teach research methodology. *International Journal Research & Method in Education*, 41(5), 548–561.
- Hodza, F. (2007). Managing the Student-supervisor Relationship for Successful Postgraduate Supervision: A Sociological Perspective. South African Journal of Higher Education, 21(8), 1155–1165.
- Howells, K., Stafford, K., Guijt, R. & Breadmore, M. (2017). The role of gratitude in enhancing the relationship between doctoral research students and their supervisors. *Teaching in Higher Education*, 22(6), 621-638.
- INEI (2010). Instituto Nacional de Estadística e Informática, Censo Nacional Universitario 2010. Retrieved December 12, 2017 from http://censos.inei.gob.pe/cenaun/redatam inei/.
- Ishitani, T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *Journal of. Higher Education*, 77(5), 861-885.
- Kan'an, A., 2018. The relationship between Jordanian students' 21 st century skills (cs21) and academic achievement in science. Journal of Turkish Science Education, 15(2): 82-94.
- Kirk, M., & Lipscombe, K. (2019). When a graduate student becomes a novice researcher and a supervisor becomes a mentor: A journey of research identity development. *Studying Teacher Education*, *15(2)*, 179-197.
- Law N° 30220 (2014). Ley Universitaria, Diario Oficial El Peruano, 9 julio, pp. 52713-527233. Retrieved December 12, 2017, from http://www.leyes.congreso.gob.pe/Documentos/Leyes/30220.pdf.

- Lee, A. (2007). Developing effective supervisors: Concepts of research supervision. South African Journal of Higher Education, 21(4), 680–693.
- Murtonen, M. (2015). University students' understanding of the concepts empirical, theoretical, qualitative and quantitative research. *Teaching. Higher Education*, 20, 684–698.
- Mushoriwa, T. & Nyakutse G. (2014). M.Ed Graduates' Perceptions of Thesis Supervision, Writing and Defence. *Mediterranean Journal of Social Sciences*, 5(8), 319–327.
- Nachatar, S. (2018). What are the factors that contribute to postgraduate international students' academic success? A Malaysian qualitative study. *Higher Education Research & Development*, 37(5), 1035–1049.
- Ochoa, L., & Cueva A. (2012). Tesis y deserción: entre el compromiso y el obstáculo. Bogotá: Universidad.
- Prasad, H. (2019). Writing Thesis in English Education: Challenges Faced by Students. Journal of NELTA Gandaki, 1, 44-52.
- Roach, A., Christensen, B., & Rieger, E. (2019). The essential ingredients of research supervision: A discrete-choice experiment. *Journal of Educational Psychology*, 111(7), 1243-1260.
- Roberts, L., & Seaman, K. (2018). Students' experiences of undergraduate dissertation supervision. *In Frontiers in Education 3*, 109, DOI:10.3389/feduc.2018.00109
- Singh, J. (2017). Human capital or talent development? A paradigm shift by Malaysian higher education. In H. de Wit, J. Gacel-Ávila, E. Jones, & N. Jooste (Eds.), *The globalization* of internationalization: Emerging voices and perspectives, 153–165. London, UK: Routledge.
- Stappenbelt, B., & Basu, A. (2019). Student-supervisor-university expectation alignment in the undergraduate engineering thesis. *Journal of Technology and Science Education*, 9(2), 199-216.
- Strebel, F., Gürtler, S., Hulliger, B. & Lindeque, J. (2019). Laissez-faire or guidance? Effective supervision of bachelor theses. *Studies in Higher Education*, DOI: 10.1080/03075079.2019.1659762
- SUNEDU (2018). Informe bienal sobre la Realidad Universitaria Peruana. Retrieved July 15, 2018 from

http://repositorio.minedu.gob.pe/bitstream/handle/MINEDU/5716/Informe%20bienal%2 0sobre%20la%20realidad%20universitaria%20peruana.pdf?sequence=1&isAllowed=y

- SUNEDU (2018a). Lista de Universidades. Retrieved July 15, 2018, from https://www.sunedu.gob.pe/lista-universidades/
- Torres, N., & Cristancho, J. (2018). Analysis of the forms of argumentation of teachers in training in the context of a socio-scientific issue. *Journal of Turkish Science Education*, 15(1), 57-79
- Woodrow, L. (2006). Academic success of international postgraduate education students and the role of English proficiency. *University of Sydney Papers in TESOL*, *1*, 51–70.