Seminars in Medical Writing and Education. 2022; 1:15

doi: 10.56294/mw202215

ORIGINAL





Exploration of theoretical conceptualizations of the causes of college dropout

Exploración de las conceptualizaciones teóricas sobre causas de la deserción universitaria

Nicole Noemi Villanueva Amaro¹, Segundo Waldemar Rios Rios¹, Brian Andree Meneses Claudio¹

¹Universidad Tecnológica del Perú. Lima, Perú.

Cite as: Amaro NNV, Rios SWR, Claudio BAM. Exploration of theoretical conceptualizations of the causes of college dropout. Seminars in Medical Writing and Education 2022;1:15. https://doi.org/10.56294/mw202215.

Submitted: 06-07-2022 Revised: 01-09-2022 Accepted: 15-10-2022 Published: 16-10-2022

Editor: Prof. Dr. Javier González Argote

ABSTRACT

This paper addresses the crucial issue of student dropout at the university level, exploring various theories that explain the reasons behind this phenomenon. It highlights key factors such as socioeconomic, personal and academic problems that contribute to dropout. Previous research findings indicate that economic problems, such as lack of financial resources and the high cost of higher education, are a significant cause of dropout. In addition, personal challenges, such as low self-esteem and psychological problems, also influence the decision to drop out. In the academic field, low performance and lack of guidance are determining factors in student dropout. Educational institutions play an important role in providing financial support, academic guidance and retention programs to address these problems. Three types of dropout are identified: early, temporary and permanent, each with its own characteristics. In addition, the concept of procrastination is addressed, which refers to the procrastination of academic tasks, which can lead to underachievement and, ultimately, dropout. It is suggested that procrastination can be addressed through motivational and metacognitive strategies, as well as through the promotion of routines and habits that improve academic self-control. Overall, understanding the multiple causes of student dropout is essential to develop effective strategies to promote student retention and academic success at the university level, both nationally and internationally.

Keywords: Student Dropout; Socioeconomic Factors; Personal Factors; Academic Factors; Procrastination.

RESUMEN

Este artículo aborda el tema crucial de la deserción estudiantil en el nivel universitario, explorando diversas teorías que explican las razones detrás de este fenómeno. Se destacan factores clave como los problemas socioeconómicos, personales y académicos que contribuyen a la deserción. Los resultados de investigaciones anteriores señalan que los problemas económicos, como la falta de recursos financieros y el alto costo de la educación superior, son una causa significativa de deserción. Además, los desafíos personales, como la baja autoestima y los problemas psicológicos, también influyen en la decisión de abandonar los estudios. En el ámbito académico, el bajo rendimiento y la falta de orientación son factores determinantes en la deserción estudiantil. Las instituciones educativas desempeñan un papel importante al ofrecer apoyo financiero, orientación académica y programas de retención para abordar estos problemas. Se identifican tres tipos de deserción: temprana, temporal y definitiva, cada una con sus propias características. Además, se aborda el concepto de procrastinación, que se refiere al aplazamiento de tareas académicas, lo que puede llevar a un bajo rendimiento y, en última instancia, a la deserción. Se sugiere que la procrastinación puede abordarse mediante estrategias motivacionales y metacognitivas, así como mediante la promoción de rutinas y hábitos que mejoren el autocontrol académico. En general, la comprensión de las múltiples causas de la deserción estudiantil es esencial para desarrollar estrategias efectivas que fomenten la retención estudiantil y el éxito académico en el nivel universitario, tanto a nivel nacional como internacional.

© 2022; Los autores. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia Creative Commons (https://creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada

Palabras clave: Deserción Estudiantil; Factores Socioeconómicos; Factores Personales; Factores Académicos; Procrastinación.

INTRODUCTION

Student attrition at the university level is a significant issue that requires a thorough and careful understanding. The loss of students in higher education institutions poses challenges both for the students themselves and for educational institutions and educational systems in general. Understanding the causes behind student attrition is critical to address this problem and promote student retention effectively. (1,2)

This article explores the different theoretical conceptualizations that have emerged to explain the reasons behind international and national college dropouts. An in-depth analysis aims to shed light on the multiple factors that influence students' decision to drop out of their studies. (3) Recognizing the complexity of this phenomenon, we will approach the theories from an objective perspective, acknowledging the similarities and differences that may exist in national and international contexts. (4)

Student dropout is a multifaceted phenomenon resulting from a complex interaction between individual, family, institutional, and social factors. (5,6) Through this article, we aspire to offer a more complete view of the emerging theories to understand this phenomenon. In doing so, we seek to contribute to developing informed strategies and policies that help address student dropout and promote students' academic success in the university environment, both nationally and internationally. (7)

DEVELOPMENT

International Background

Morales Mesa and Tavera Ariza (2021) researched the analysis of the elements linked to student dropout. This study aimed to describe the main aspects that allow student desertion. A quantitative study of descriptive - non-experimental type was carried out since it collects and explains the variables to analyze the research impact. A survey of 40 students of the four semesters was conducted, applying a questionnaire of 22 questions about information on topics related to factors allied to university desertion. The results showed that the primary cause of dropouts is economic problems with 80 %, and personal and psychological aspects with 63 %. This scientific article contributes to research identifying one of the possible causes of student retention. (8)

Buitrago (2021) conducted his research, which focused on the approach and characterization of factors associated with the desertion of students of the Faculty of Education. This work will reveal the hypotheses, and therefore, it will be a quantitative descriptive study approach. Likewise, the sample selection will be 54 students aged 16 years and older than 25, including two teachers of the same degree. Consequently, the author mentions that it is necessary to conduct financing campaigns since the leading cause of students dropping out is economic. This research contributes to the knowledge that the leading cause of the interruption of university degrees is the scarcity of financing programs. (9)

Ibarra Acuña and Jaimes Albarracín (2019) analyzed the influential factors in the desertion of students in the nursing program. In their study, the authors relied on the quantitative methodology - non-experimental, with a descriptive work approach since it describes the causes that motivate students to drop out. For this purpose, a sample of 53 university students from 2016-2018 was made from the data provided by the Universidad de Santander - Campus Cúcuta who did not complete the academic program. Among the leading causes, it was found that 50 % of young people drop out due to transfer to another university; this is the predominant factor, and 25 % do not complete their degree due to economic factors.⁽¹⁰⁾

García (2018) aimed to identify the academic, personal, and sociocultural variables to propose institutional tactics to limit university students from dropping out. For this, the author relied on a quantitative methodology of Edwar Suchman 1968 and comparative causal design (ex post facto). Data were collected from undergraduates of the 2011 to 2016 cohorts of the Faculties of Jurisprudence and Political Science. The results show that young people present a low academic performance, which is reflected from the second semester onwards with student dropout, highlighting that academic factors are the most influential. (11,12) The research allows finding the items of university dropout, based on mainly academic variables.

National Background

Romualdo's (2020) research aimed to specify the relationship between variable x, the Socioeconomic Factor, and the independent variable, university student desertion. It presents a descriptive correlational design and scientific method, surveying 300 students of the 11 faculties of the Universidad Nacional Daniel Alcides Carrión of the third semester. The results showed that economic factors cause university students to abandon their institutional studies due to low monetary income and lack of family support. Also, it was possible to identify personal factors such as the commitment to continue studying due to poor career choices or health reasons

3 Amaro NNV, et al

and academic factors such as dropping out due to low grades. Among the factors that stand out are order, the economic aspect, disorientation in career choice, family problems, and lack of academic understanding. (13)

Palomino (2020) focuses on determining the factors that delay university students' graduation. The methodology is of quantitative approach and cross-sectional design; a sample of 100 students was made within the third to eighth cycle, and the questionnaire was of 20 questions to obtain results. The economic factor stood out as the leading cause for students to drop out since 48 % of students are responsible for their academic payments; in the same way, the academic factor had a result of 20 % and 16 % in terms of partial and temporary desertion, and definitive desertion of 64 %. The three types of desertion are clarified by sociodemographic factors, such as the economic income at home and those responsible for paying the monthly university fee. (14)

Mego (2018), in his exploration, determines and describes the problems that allow students to drop out. The methodology used was quantitative with a descriptive type non-experimental design; the study sample consisted of 77 students applying a 17-question questionnaire. The results show that 58 % of university students abandoned their academic degrees due to the lack of economy because they do not have family support and must finance themselves with a job, but in any case, they still need to reach the monthly payment of the university. It is proposed that the university should implement retention programs and financial support from other entities to prevent students from not completing their higher education. (15)

In their research work, Pérez and Pipa (2021) investigate the relationship between early pregnancy and the difficulty of continuing their university education, considering it as lost. The methodology applied is quantitative and descriptive-correlational; the sample consisted of 100 female students of the Psychology and Obstetrics program. Among the results, it was shown that 54 % of the young women with early pregnancy reflect low qualification scores, so they abandon their university studies; among the possible causes is the lack of communication with their parents about issues relevant to sexuality in terms of care and the use of contraceptives; as well as the little information, guidance, and counseling received by the institution. (16)

Theoretical aspects of the subject

Interactional Theory

This model describes the behaviors that students exhibit in relation to individual or organizational qualities. The explanation of this theory is based on the participative relationship between the university and the students. So that the teacher obtains the academic plan and proceeds in guiding the young person to fulfill his role as a student so that he cannot drop out (Velázquez and Gonzales, 2017).

Psychological theory

Viale (2020) mentions that the central aspect related to desertion is personality traits. The attitudes shown by university students during their professional development will depend on the degree of their psychological well-being; for this reason, it is difficult to know if the student will remain with his classes or if he will choose to abandon his university career.

Conceptual aspects of the topic addressed

Based on the problem posed in the research, we will proceed to define concepts that will help to interpret a better understanding of the general framework. In this part of the work, the definitions of the dependent and independent variables will be made, as well as their dimensions.

Influencing Factors

Socioeconomic

According to Maria and G Gomez (2013), the socioeconomic factor, is determined by the relationship between economic income and the possibility that the university student can remain in the academic program. This factor can be beneficial if it can cover university expenses or hinder the development of educational activities since some of the students need a stable economic situation. According to the economic approach, it is related to Cost-benefit, which influences the capacity or inability of the student to pay his expenses and finish his higher education (Himmel, 2002) in such a way that they are forced to look for a job and pause their studies to collect money to pay the tuition or other additional payments.

It is worth mentioning that the socioeconomic factor should not only be seen as a negative aspect since there are also cases where the parents are the agents to cover university expenses. Therefore, parents in an excellent economic situation are accomplices in the academic development and completion of their children's university studies (Page et al., 1990). However, the situation in Peru is that many young people are limited in pursuing their higher education studies by the lack of funding at home or by the State in terms of the absence of economic solvency programs, bringing them closer to the risk of dropping out of school. (17)

Sanabria (2002) mentions that Peru has been dragging along fundamental educational problems for decades, which would determine desertion. Although there are public universities, they cannot satisfy the demand for

graduates, so students choose to enter a private institution. However, this would mean that students may choose a career that does not fit their perspective due to the quota that the university registers. This would eventually lead to a demand for expense and time and the decision to drop out of the university course.

Cortés Cáceres et al.(2019) indicate that attending a private university requires higher expenses; that is why many young people give up their studies to start working due to the lack of money at home. This variable considers the monthly payment of the private university; it also implies other expenses such as airfare, food, and materials required to develop their career. Therefore, they are forced to abandon their studies because they have to go out to work to help support their families.

As Cortes indicates, the economic dimension takes precedence over the continuity of higher education. It represents the most significant concern of young people because they need more economic resources to complete a university degree. (18)

Sociological Dimension

González and Girón (2005) mention that dropout brings consequences through social factors, expectations among families, interpersonal conflicts, and emotional and economic factors. Similarly, Braxton, Shaw, and Johnson (1997) present an external and internal approach, which can be grouped into three categories depending on the emphasis given to the variables: individual, institutional, or interpersonal (family environment).

In this sense, external and internal factors put the student's professional life on hold. In the same way, these conflicts generate a high dropout rate among students in private universities.

Similarly (Ruiz et al.) mention that the main factors for student desertion are individual aspects such as travel, family reasons, and health, among others. These take up more time; therefore, many students need more time to devote to their studies. Thus, the aforementioned personal causes affect the student's inability to devote time to academic learning.

We can also associate the psychological variables as a cause of university abandonment, which is related to the personalities that the student manages to interact with during the development of academic activities. Among the possible aspects are low tolerance and self-esteem, interpersonal problems, poor student-teacher relationships, doubts about life projects, and low motivation (Ariza & Marín, 2009). All the aspects above play a vital role in the student's mental health; therefore, they can present educational imbalances and, in the same way, in the social environment.

Viale (2020) writes that universities propose strategies for university insertion. However, in many cases, they need to provide a good orientation before an essential change in the new student stage of young people. Unlike school life, being a university student implies challenges, difficulties, persistence, and transitions in many aspects of life. However, it creates more significant confusion and uncertainty in the student, which leads him/her to make an inconclusive decision about university life.

University life is a stage of constant adaptation. In which the young person is forced to experience various changes that he/she is unable to assimilate. (19)

Institutional

From the point of view of Corominas, Rovira (2001) comments that the cases of abandonment or change of career occur during the first semesters of the university, and the desertions are mainly due to inadequate choice of career. This is due to having a learning deficit, which leads to failing to pass their subjects. In the same way, he assigns other factors (labor and economic issues, among others). In addition, he emphasizes that there are differences according to the classification variables.

All these variables are usually related to retention and the results of not obtaining higher university graduates. Focusing mainly on the poor choice of their career to be treated, due to poor orientation and lack of learning.

Likewise, Tejedor and García (2007) mention that this problem is divided into pedagogical and non-pedagogical areas. Some variables affect academic performance: psychological, socioeconomic, family, and academic. These factors deteriorate academic performance, so the young person desists from continuing his or her university studies.

According to what has been explained, the studies consulted have in common that young university students do not conclude their careers due to various factors. It is an issue that transcends the professional development of young people in the face of this type of retention.

However, in the teacher-student relationship, the relationship significantly influences the student's academic results and the containment or desertion of professional studies in the institution. The teacher's interaction with the students should be carried out according to an academic plan to create a didactic environment, which allows the student to understand the topics related to his career more easily (Page et al., 1990). In this way, adequate academic integration and academic performance are developed.

Ariza and Marín (2009) mention that the university environment is part of the institutional factor; the

5 Amaro NNV, et al

university must offer an adequate infrastructure so that its students can complete their bachelor's degree and put into practice what they have learned. For this, it is essential to implement high technological and human resources to meet the understanding and practice needs of the university students. It is also essential to use financing programs, such as scholarships or discounts and motivational campaigns. (20)

In this scenario, young people have restrictions, such as the economy at home; their economic level could be higher. Many university students expel themselves from their institutions due to the lack of economic support, either from their parents or their work centers' low remuneration. Also, I experienced a difficult transition and adaptation to university life. Among them, we can observe the need for more orientation based on their career and the poor performance in the information supply. With this, we need more understanding due to the little interest in curricular programs. Therefore, academic desertion mentions how students have moved away from the academic path due to several factors. (21,22)

Dropout

Student Desertion

Defining desertion in the academic field is difficult to pinpoint in a single connotation. Tinto (1975) mentions desertion as a situation in which the young university student puts his professional life on hold or terminates it because he is faced with circumstances that are out of his hands.

We can relate it to voluntary academic abandonment, among others. However, these represent different variables.

SPADIES (2006) defines dropout as resignation from an academic program in two consecutive cycles by a university student who leaves his or her higher degree. Internal and external causes present this student dropout, which is related to interpersonal and social factors and according to the social context.

Paramo & Correa (2012) explain that student dropout is a student's choice, influenced positively or negatively by external or internal circumstances. It is the abandonment of academic training and is a personal decision independent of the modality offered by the university. In addition, it should be understood that the higher education institution does not directly influence the retention of academic learning since there are different reasons why the student is absent.

Therefore, it is necessary to understand that university student desertion will depend not only depend not only on the institution but also on the modality offered. Some factors force the student to decide to abandon his or her higher education studies. (23)

Types of desertion

According to Castaño (2004), he classifies student desertion in two types, according to the period; early or precocious, temporary and definitive or space; internal and institutional.

Early desertion

This is designated as such when, during the admission process, the student presides over the first contact with the institution to be entered and, despite being admitted by the university, cannot enroll due to interpersonal or socioeconomic factors.

Temporary Desertion

We can define *temporary desertion* as when the student pauses his studies between the first three semesters of the university program, intending to resume his classes in the future. This interruption of academic training is caused by problems that the student may be experiencing, such as personal, economic, or health problems. It is also related to when the student wishes to leave the current career to start another one, either in the same institution or another.

Definitive Desertion

It is the definitive abandonment of the university career, in which the student terminates professional development due to problems such as difficulties in paying the monthly tuition and family or health problems.

Procrastination

The analysis of Garzón and Gil (2017) mentions that procrastination is an act of postponing academic activities with the sole purpose of misspending time. This leads to poor performance in their grades because they do not have good time management, generating doubt as to whether they should continue their studies. They also allude that university procrastination can be improved with motivational or metacognitive aspects, such as developing programs of routines and habits to increase the academic self-control of the university student

In this way, it is understood that procrastination is a notable factor in the time management that the

university student uses in his academic life; in several cases, it can be seen that students substitute their duties, thus generating an obligatory withdrawal from their career for not fulfilling the necessary grades or passing grades for each course. (24,25,26)

CONCLUSIONS

In conclusion, student dropout at the university level is a complex and multifaceted phenomenon involving various interrelated factors. Socioeconomic factors, such as lack of financial resources and the high cost of higher education, play a significant role in students' dropping out. In addition, personal problems, low self-esteem, psychological challenges, and procrastination can contribute to dropout. Academic factors, such as poor performance and lack of guidance, are also determinants. Educational institutions are vital in providing financial support, academic guidance, and retention programs to address these problems. Ultimately, understanding these causes from a theoretical perspective is essential to developing effective strategies to promote student retention and academic success in higher education, both nationally and internationally.

REFERENCES

- 1. Osorio Muñoz L, Leon Heredia J. Revista Renovación Nro. 10 | ISSN: 2955-845X. 2022.
- 2. Sánchez CXM, Lucio TDPC, Moreira SMM, Álava ÁFB. La transferencia del aprendizaje en los estudiantes de nivelación y deserción académica. Polo del Conocimiento 2022;7:2514-40. https://doi.org/10.23857/pc.v7i8.4526.
- 3. Aristizábal Botero LC. Diseño de una estrategia didáctica que favorezca el aprendizaje del concepto de Potencia y la aplicación de sus propiedades a expresiones algebraicas en estudiantes de la Universidad de Antioquia seccional Urabá. Trabajo de grado Maestría. Universidad Nacional de Colombia, 2022.
- 4. Molina M, Marcela A. Deserción universitaria en posgrados : un caso de estudio de la maestría en Diseño Urbano de una universidad pública de Bogotá 2021.
- 5. Alarcón Cendales NR, Angarita Garzón SM, Bonilla Umaña RA, Cuervo Canosa S, Ríos Rivera D del M. Deserción en programas de acceso a la educación superior en el distrito bajo el programa Reto a la U en 2020 2021. Bachelor Thesis. Especialización en Gerencia Procesos de Calidad e Innovación Virtual, 2022.
- 6. González-Nieto NA, Rodríguez-Hernández CF. Educación Superior y retención estudiantil: Retos de la universidad contemporánea. Education in the Knowledge Society (EKS) 2023;24:e31018-e31018. https://doi.org/10.14201/eks.31018.
- 7. López Reyes K. Caracterización de las actividades de enseñanza de los profesores para el nivel Transición: un análisis desde los aspectos de la competencia científica, exploración del medio e indagación científica 2023.
- 8. Guzman Hernandez DC. Factores asociados a la deserción universitaria en programas de formación por ciclos propedéuticos de las facultades de Artes e Ingenierías. Caso de estudio CIDE (2016-2019) 2021.
- 9. Velasco Quintero SJ, Castro Garzón VO. La deserción en la educación rural en Colombia. Un problema multidimensional. Una revisión documental 2007 2020. 2023.
 - 10. Serna M. E. Revolución Educativa en la Nueva Era Vol. II. 2022.
- 11. Báez BC de. Metodología de la investigación científica: un camino fácil de recorrer para todos. Editorial UPTC s. f. https://librosaccesoabierto.uptc.edu.co/index.php/editorial-uptc/catalog/view/124/154/3259 (accedido 24 de enero de 2024).
- 12. Carvajal Olaya P. Los persistentes de la UTP ¿Qué sostiene a los estudiantes de alto riesgo de deserción en su camino hasta la titulación?. 2021.
- 13. Castro Bonilla LC. Sentidos que tienen los estudiantes de la Universidad del Valle, sede regional Yumbo, sobre deserción estudiantil. 2021.
- 14. Albor-Chadid LI, Rodríguez-Burgos K, Albor-Chadid LI, Rodríguez-Burgos K. Estudios aplicados de la teoría de la autodeterminación en estudiantes y profesores, y sus implicaciones en la motivación, el bienestar

7 Amaro NNV, et al

psicosocial y subjetivo. Revista eleuthera 2022;24:56-85. https://doi.org/10.17151/eleu.2022.24.1.4.

- 15. Arias Bracho GE, Escalante Palacio DE, De La Rosa J, Durán J, Gomez Hernandez J. Estrategias para la disminución de la deserción estudiantil. Boletín en Innovación, Logística y Operaciones (BILO) 2022;4:1-7.
- 16. Arnaud Bobadilla AJ, Sánchez Villarreal F, Galindo Miranda NE, Franco Bodek D, Ruiz Gutiérrez R, Arnaud Bobadilla AJ, et al. Diagnóstico de las causas de rezago y deserción en alumnos de la Facultad de Ciencias de la UNAM. RIDE Revista Iberoamericana para la Investigación y el Desarrollo Educativo 2022;12. https://doi.org/10.23913/ride.v12i24.1181.
- 17. Garzón Gutiérrez AR, Castro Hernández DM, Gómez GD, Torres Peña MA, López Gómez ML. Niveles de deserción universitaria y decálogo para minimizar su impacto 2020.
- 18. Otero-Potosi S, Fuertes-Narváez ME, Casanova-Imbaquingo L, Arichábala-Vallejos D, Freire-Reyes K. La Procrastinación: Una Exploración Teórica. Ciencia Latina Revista Científica Multidisciplinar 2023;7:76-93. https://doi.org/10.37811/cl_rcm.v7i3.6065.
- 19. Rivera FB. La experiencia del riesgo de deserción como oportunidad y camino de formación en los estudiantes universitarios. Academia y Virtualidad 2020;13:57-68. https://doi.org/10.18359/ravi.4381.
- 20. OAC, Negro UN de R, Giménez IG, Vidal C, Zeberio M, Gómez Rodríguez W. Informe OAC, 15: Una aproximación cualitativa al fenómeno de la deserción universitaria. Causas de abandono de los estudiantes de UNRN 2022.
- 21. Erazo Guerra XF, Rosero Morales E del R, Erazo Guerra XF, Rosero Morales E del R. Orientación vocacional y su influencia en la deserción universitaria. Horizontes Revista de Investigación en Ciencias de la Educación 2021;5:591-606. https://doi.org/10.33996/revistahorizontes.v5i18.198.
- 22. Vilardy Barros F. Estrategias para disminuir la deserción universitaria en los dos primeros años en la Universidad del Magdalena. Trabajo de grado Maestría. Corporación Universidad de la Costa, 2022.
- 23. Ramírez T, Daniela C. Factores generadores de la deserción universitaria en los posgrados de Odontología en una universidad del Atlántico 2021.
- 24. Mut PN. Diseño de una propuesta didáctica mediada por TIC que contemple la autorregulación y metacognición del aprendizaje para ingresantes de la carrera de Odontología. 2023.
- 25. Hermida JCZ, Lara MAC. Modelo de gestión que garantiza el perfil de ingreso a la modalidad virtual y su impacto en la deserción. Caso IUV Universidad. Revista Electrónica INNOVA IUV 2021;1.
- 26. Zoppis D. Rezago universitario: discusión teórica, metodológica y su manifestación en la carrera de Arquitectura de la Universidad de la República 2020.

FINANCING

There are no conflicts of interest.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Nicole Noemi Villanueva Amaro, Segundo Waldemar Rios Rios, Brian Andree Meneses Claudio.

Research: Nicole Noemi Villanueva Amaro, Segundo Waldemar Rios Rios, Brian Andree Meneses Claudio. Writing - original draft: Nicole Noemi Villanueva Amaro, Segundo Waldemar Rios Rios, Brian Andree Meneses Claudio.

Writing - proofreading and editing: Nicole Noemi Villanueva Amaro, Segundo Waldemar Rios Rios, Brian Andree Meneses Claudio.