Integrating the Hidden Curriculum into an Edu-socio Model for Student Success

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Abstract: The journey of a university student involves ongoing adaptation to a unique, ever-evolving, multidimensional academic and social environment. No first-year student, particularly those who are first-generation, can be fully prepared for this new educational landscape upon leaving secondary school. Nevertheless, all successfully enrolled students and university management aim for "student success." This research utilised the dendrogram technique to analyse the typical university student's journey towards academic success, identifying the core elements of the hidden curriculum that serve as scaffolding for all students across disciplines and the spectrum of academic performance, enabling them to navigate their academic curriculum effectively. Drawing on a comprehensive literature review on student success, the dendrogram technique was employed in the conceptualisation process to identify and model the universal core elements of the hidden curriculum from existing research. This process shaped the findings into an edu-socio model of student success comprising six domains of core academic skills with 22 logically related essential elements. It is contended that these core domains and elements are directly linked to students' potential academic performance, reflecting the complex, dynamic, and evolving academic-focused edu-socio environment that students must navigate to achieve their academic goals and graduate. Considered the fundamental building blocks of student success, no hierarchical order can be assigned to the identified domains and elements, as all contribute to students' achievements and success. This edu-socio model for student success also served as the theoretical foundation for the Student Success Thermometer, an early warning self-assessment tool designed to inform students of their status concerning the hidden curriculum and their readiness for academic success. It is proposed that the edu-socio model and assessment tool can be applied across diverse university settings, guiding the development and evaluation of academic interventions and student support services across disciplines and campuses.

Keywords: Student success; Core Academic Skills; Hidden Curriculum; Edu-socio Model; Student Support.

1. Introduction

Student success is a key concern for both university management and academics. However, stakeholders interpret the concept differently, as there is no consensus on what constitutes student success. Weatherton & Schussler (2021, p. 2) describe this variation by stating that the "meaning of student success depends on the context and who you ask, making a singular, unifying definition largely impossible.

1.1 Academic Success from a Student's Perspective

Most articles about student success examine the attributes of successful students, such as personal development, social skills, and workplace skills, often referred to as the "holistic" development of students. In this article, student success is defined as the outcome of academic achievement from a student's perspective, specifically graduating within the designated timeframe for a specific qualification (Finn & Rock, 1997).

1.2 Research Problem

From a student's perspective, Finn and Rock (1997) argue that student success is viewed as the overall achievement of passing each academic year and ultimately graduating. It is not surprising that most research in the field of "student support" concentrates on first-year students and the academic challenges they face during the transition from secondary school to university, where they are "expected" to succeed (Wrench et al., 2013, pp. 730–746; Wang et al., 2013, pp. 205–212; Torenbeek et al., 2010, pp. 659–675; Credé et al., 2012, pp. 133–165; Gilbreath et al., 2011, pp. 47–62; Manik, 2015, p. 107). This research aims to create a student success model that emphasises academic achievement (graduation) and combines theory and practice as the foundation for a universal early warning self-assessment tool.

1.3 Research Question

The research question arose from a thorough review of extensive literature on student success and support, aiming to identify key educational and social factors that foster student achievement across university settings. It was developed in response to the question: What makes a successful university student? Additionally, it is

theorised that the absence of these attributes would address the counter-research problem statement: What leads to an unsuccessful university student?

2. Methodology

A scientific model is developed by integrating real-world research applications with scientific logical reasoning and conceptual interpretation (Gilbert, 2004, pp. 115-130). The data used in this study's modelling process were gathered from an extensive literature review on student success, combined with a content analysis of 28 electronic student self-assessment tools currently in use. In this research, the dendrogram technique (Schutte, 2006, pp. 616-630) was applied to help develop a model related to student success. During the problem formulation and research design, an inductive approach was adopted to support the process of identifying and logically integrating concepts, based on domains and elements extracted from the literature and the analysis of electronic tools in practice. Throughout the modelling process, the focus on student success skills was defined as skills academically associated with the environment relevant to students' academic achievement, which are commonly found in any tertiary educational institution.

3. Findings: Modelling the Results

The dendrogram (Figure 1) provides a comprehensive overview of the core skills identified and integrated, both theoretically related and practice-driven, emphasised in the literature that every university student should master across various settings for academic success. The contents of this summative inductive dendrogram are presented as a universal university edu-socio student success model (Figure 2). This model also serves as the operational and evaluation framework for all three response-to-intervention (R.T.I.) levels, within which core academic intervention and support services at any university aim to address student needs for academic success (Christo, 2014, pp. 33-44).

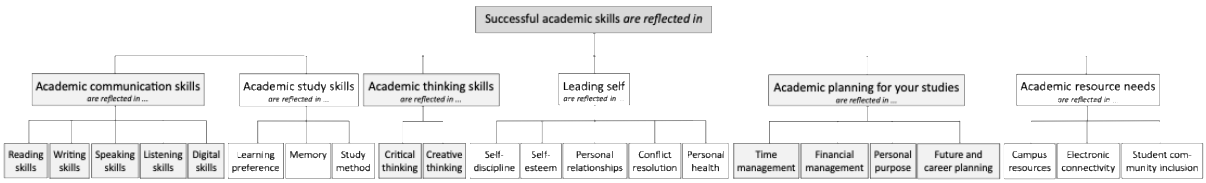

Figure 1: Inductive dendrogram of the edu-socio model for student success and support services.

3.1 Logical Identification and Integration of Domains and Elements into the Edu-socio Student Success Model

The following discussion explains the logical reasoning behind the 22 elements linked to each of the six domains in the dendrogram, reflecting the universally essential hidden curriculum skill sets necessary for students' academic success, as identified in the literature (Figure 1).

3.2 Domain 1: Academic Communication Skills

Within the university environment, academic communication for student success is highly structured and includes various modes, such as formal lectures, which mainly aim to develop listening skills and share information through both formal and informal discussions with lecturers and peers. This involves speaking (Iksan et al., 2011, p. 74) and listening skills (Sen, L., 2009, pp. 26-43). Furthermore, academic reading skills may involve specific comprehension abilities that require subject-specific vocabulary (subject jargon) through reading textbooks and other written materials (Sabbah et al., 2020, pp. 138-142; Iksan et al., 2011, p. 74). In today's computer-centric information age, essential computer literacy is crucial for academic success in any university setting. Students rely heavily on computers to access course materials, conduct research, communicate with lecturers and peers, write assignments, use specialised programmes, and manage administrative tasks (Nash, 2009, pp. 88-92). From this, it can be concluded that in this edu-socio framework, the fundamental academic communication skills needed for students to succeed at any university are the five skills (elements) mentioned above: (i) reading, (ii) writing, (iii) listening, (iv) speaking, and (v) digital communication skills.

3.3 Domain 2: Academic Study Skills.

The underlying logical inductive argument is that successful academic study skills among students are reflected in (i) an academic learning style preference that works for the student (Lowery, 2009, pp. 57-60; Cekiso, 2011, pp. 1298-1309; Xing, 2023, p. 264), (ii) study method (Mutsotso & Abenga, 2010, pp. 811-812), and (iii) a strong memory that helps in integrating new knowledge with existing information (Dolgova et al., 2020, p. 1632) as well as recalling subject content during reflection and examinations that suit each student. Although some learning styles, such as visual, auditory, kinaesthetic, and reading/writing, may be more common among music students than mathematics students, the purpose of including this domain in the edu-socio student success model is not to identify the optimal combination of learning styles for inclusion. Instead, it aims to recognise that, at a fundamental level, specific effective academic study skills are necessary, reflected in (i) a preference for academic learning and (ii) a study style that incorporates (iii) practical memory skills tailored to each student's needs, enabling them to succeed academically. However, what is crucial is that students must adopt a learning style that best suits them to achieve academic success.

3.4 Domain 3: Academic Thinking Skills

There is a broad consensus among educators that critical thinking skills are vital for student success and form the foundation of academic (scientific) thinking. This skill is essential for analysing the conditions or reasons that lead an author or speaker to make a particular statement or reach an inevitable conclusion. (Van der Zanden et al., 2018, p. 58; Afkhaminia et al., 2018, p. 177; Huber et al., 2016, p. 431-432; Lai, 2011, pp. 41-44; Shim & Walczak, 2012, p. 16). However, for this model, good academic thinking skills include both critical and creative thinking skills (Van der Zanden et al., 2018, pp. 72-74; Fatmawati et al., 2019, pp. 1-9). Critical and creative thinking are two interconnected aspects of academic work. Essentially, creative thinking for a university student involves deliberately gaining new insights and diverse ideas by reorganising existing knowledge to develop new information through the perspective of critical and creative scientific thinking, thus addressing gaps in current knowledge (Fatmawati et al., 2019, p. 7).

3.5 Domain 4: Leading Self to Academic Success

The leading self, sometimes called “self-agentic capabilities” (Nnadozie et al., 2023, p. 15), is the ability of students to influence and guide their thoughts and actions to successfully achieve their academic goals (Bandura, 2008). In this proposed educational-social model of student success, the inductive argument suggests that, at its core, the relevant attributes of the leading self that contribute to academic success are reflected in five logically connected elements (attributes): (i) self-discipline for academic work (Zimmerman & Kitsantas, 2014, pp. 145-155; Şimşir & Dilmaç, 2020, pp. 153-171; Shim & Walczak, 2012, pp. 16-30; De Wit et al., 2012, pp. 1-25), (ii) positive academic self-esteem among peers (Zhou et al., 2015, pp. 163-179), (iii) relationships that boost academic performance (Swenson Goguen et al., 2011, pp. 319-377; Dyson & Renk, 2006, pp. 1231-1244; Saud, 2021, p. 58), (iv) skills to manage intra- and interpersonal conflicts in ways that support academic achievement (Hiester et al., 2009, pp. 521-538; Sax and Weintraub, 2014, pp. 113-127), and (v) personal physical and psychological health that meets the demands of academic success (Zakir et al., 2023, pp. 4598-4604; Fenning & May, 2013, pp. 635-650). Although various personal attributes are often emphasised and described by researchers advocating for a “holistic approach” to personal health, this domain and its elements aim to define only the core needs directly linked to a student's successful academic performance.

3.6 Domain 5: Academic Future Planning

Both van Rooij et al. (2018, p. 761) and Ma and Shea (2019, p. 8) found that the success of first-year students is positively related to a subject choice that aligns with their anticipated career orientation. Thus, effective academic and future planning are also considered fundamental aspects linked to student success. The inductive reasoning used in generating the elements of this domain is that successful academic planning for a student is reflected in a clear (i) career orientation (Azhenov et al., 2023, p.7) and is associated with a definite (ii) personal purpose in life (Pfund et al., 2020, p. 104). However, a successful future career orientation is also demonstrated through sound financial planning (Naidoo & McKay, 2018, p. 167) and time management skills (Razali et al., 2018, p. 6), which support a student's journey towards achieving academic success. Supported by the literature, these four elements are regarded as essential skills related to academic planning for the future domain that students must adequately master throughout their university journey.

3.7 Domain 6: Academic Resource Needs

Recognising the importance of support services as a vital component of student success in helping university students transition from secondary school to university, this edu-socio model suggests that adequate support for academically successful students is reflected in three core elements: (i) the accessibility and awareness of campus support systems when needed, (ii) a strong sense of belonging within the student community, and (iii) sufficient electronic connectivity between students and the university's information and support services. Johnson et al. point out that thriving students familiarise themselves with the diverse services and resources available on campus in these three areas, which they can utilise when necessary to assist them in their academic journeys (Johnson et al., 2022, p. 10; Ramsey et al., 2007; Sevinc & Gizir, 2014). A sense of community inclusion among students involves having a friend who shares academic interests during discussions and preparations for exams or assignments, as well as experiencing feelings of discrimination and exclusion due to disability, race, gender, religion, or any perceived marginalisation (Stewart-Ginsburg et al., 2023, pp. 396-399). On any modern university campus, academic communication and information are distributed electronically, and internet access is regarded as a basic necessity for engaging with academic research publications and documented discourses. Without adequate and functional internet connectivity (hardware or software), students are unable to access various academic sources, communicate with lecturers, or submit assignments (Costello et al., 2022, pp. 314-326; Russo et al., 2014, pp. 84-96).

4. Facilitation of Student Support on Campus

Van Rooij et al. (2018, pp. 749–767) propose that the level of "preparedness" for academia when entering the university campus as a first-year student, along with the "responsiveness" to the constantly changing academic demands, serves as a crucial indicator of their academic success or failure. Historically, student support has focused on those at risk of academic failure. Since the aim of this article is to develop a universal model that identifies and incorporates only the core skills necessary for academic success within the tertiary edu-socio environment of a typical university setting, it is, in essence, a quest for what Gilbreath et al. (2011, p. 47) refer to as the “student-university fit” between students and their edu-socio environment. It is understood that all university campus environments exhibit differences that can be described as variations of elements such as educational approaches, institutional traditions, educational facilities, and a range of social factors, which may include the institution’s history, cultural traits of lecturers and students, the physical environment (including location, architecture, campus layout, open spaces, and recreational facilities), and the available student support services, to name a few. Within this complex and multidimensional educational-social context, students must continually navigate their way toward their ultimate goal of graduation. Although some combinations and the significance of this variation in edu-socio elements may result in unique tendencies, this research aimed to identify the fundamental components that can inform a universal model for student success support services encompassing six core domains (Figure 2). Considered core skills, they are deemed vital for success across all educational and social (edu-social) environments, with academic performance levels serving as an indicator of the degree of the “student-university fit” (Gilbreath et al., 2011, p. 47).

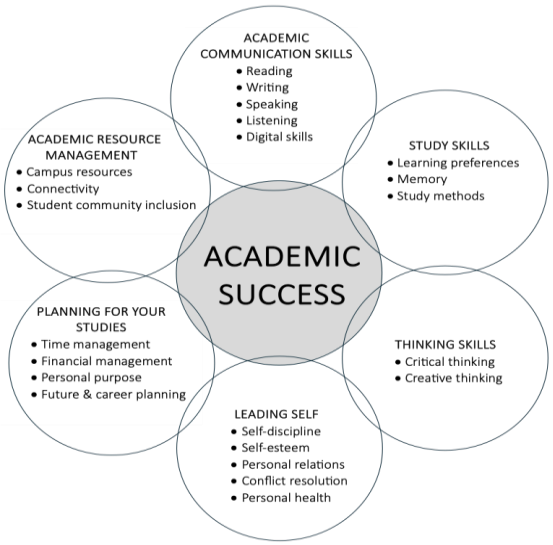

Figure 2: The Edu-socio Model for Student Success: Domains and Elements

Alongside the range of academic criteria or requirements for student success identified by various researchers, it is proposed that these six domains and their 22 associated skill elements of this edu-socio model for student success represent the essential universal core skills students need for academic success at all universities. Consequently, poor performance by a student in any of the 22 sub-clusters acts as an early warning signal of potential academic underperformance, possible failure, and the potential need for individual intervention or adjustment. The model also proposes a universal composite academic skills scaffolding for student support services across the spectrum of academic performance and university settings, encompassing all aspects of the three-tier response-to-intervention (RTI) standard protocol approach (Christo, 2014, pp. 33-44).

Based on the edu-socio model for student success, the Student Success Thermometer — a self-assessment study alert tool — was developed. The evaluation provides students with a personal profile of their level of studiousness, based on six domains and 22 related elements of the hidden curriculum. The results were successfully tested and are currently utilised by students at a university in South Africa. The tool uses faculty and academic year as independent variables to prioritise hidden curriculum intervention strategies, based on composite results derived from these two variables. It is currently employed in designing intervention workshops and coaching content by the Office for Academic Skills.

5. Conclusion

This article aimed to identify the core edu-socio elements across university campuses that influence students' academic performance. Six domains were identified, covering various factors, including unique educational (pedagogical) approaches, campus traditions, facilities, and psycho-social aspects. These factors include elements such as institutional history, distinctive teaching characteristics, the cultural and anthropological makeup of the student body, and the physical environment, which includes the institution's location, architecture, campus layout, open spaces, recreational facilities, and available student support services. Collectively, these are referred to as the universal edu-socio environment. However, as the core domains and elements linked to students' potential academic performance, this edu-socio model reflects the complex, unique, and constantly evolving academic-focused edu-socio environment that students must navigate to achieve their academic goals and graduate. This edu-socio model for student success highlights the universal elements derived from various existing models and their contributions to student success. As the fundamental elements of student success, it is impossible to assign a hierarchical order to these six identified domains and their 22 associated elements. This edu-socio model also functions as a potential framework for intervention strategies implemented by student support services across university environments, all aimed at the singular goal of student success on the path to graduation.

Ethical & AI Declaration

The Humanities and Social Sciences Research Ethics Committee of the University approved the methodology and amendments for the development of the Student Success Thermometer©.

The author also declares that AI was not used to generate any content for this article.

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