

Research Article

“You Are Essentially Just a Number”: Discourse Elaboration and Devaluation among Natural Science Students

Oscar Eybers , Emma Paulet , and Natasha van der Schyff

University of Pretoria, Pretoria, South Africa

Correspondence should be addressed to Oscar Eybers; oscar.eybers@up.ac.za

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This article analyzes first-year natural science students' experiences of discourse and devaluation as new members of the Natural and Agricultural Sciences Faculty at the University of Pretoria (UP). This study aims to highlight students' perspectives on navigating digital learning during COVID-19. Second, the analysis aims to highlight how intersections between languages, digital learning tools, and students' identities intersect in an academic literacy module. Lastly, the investigation aims to formulate methodical propositions that academic literacy facilitators can apply to generate experiences of discourse elaboration as opposed to devaluation. This study was conducted at the Hatfield campus of the University of Pretoria, Gauteng province in South Africa among first-year natural science scholars. To unearth students' experiences, this analysis employed a qualitative and phenomenological line of inquiry. Accordingly, the researchers interviewed 17 students in 2021 as part of a pilot project for a master's degree project. All structured interviews were conducted via live video transmission using Zoom. The results of the study indicated that most of the participants missed face-to-face interactions with peers and academic staff. The majority of participants indicated that the sole utilization of eLearning induced discourse devaluation. Simultaneously, participants expressed discourse elaboration through interacting with digital literacies in the LST 110 module. Key variables that shaped students' diverse experiences of discourse elaboration and devaluation are languages, identity, culture, and digital learning tools.

1. Introduction

It is evident that contemporary higher education has changed significantly. Recently, the greater part of change in universities was driven by the global pandemic known as COVID-19. Due to health concerns resulting from the transmission of the COVID-19 pandemic, traditional methods of contact instruction were temporarily suspended. The effects of campus shutdowns are undeniable. For example, universities worldwide were compelled to adopt digital strategies, including eLearning [1, 2]. Arguably, the transition to eLearning was easier for developed nations than developing nations due to pre-existing digital infrastructure [3]. For instance, university students in many African countries, such as South Africa, where the current study originates, struggled to access the internet and technological devices that are crucial for learning during COVID-19 [4]. In this aspect, digital infrastructures in industrialized countries helped educational institutions by limiting disruptions to

courses. Yet, universities in the Global North faced unique pandemic challenges in addition to those faced by the rest of the world. In particular, bouts of depression affected students in the Global North as well as in the Global South [5]. In this regard, Ventura-León et al. [5] argue that symptoms of depression and anxiety impacted students' academic and psychological well-being under pandemic conditions. Additionally, South African universities experienced pedagogic hurdles under COVID-19.

South Africa is a country located in the Global South. However, during COVID-19, South Africa-based students faced the same sociopsychological challenges encountered in the Global North. Together with the emotional burden of trying to do well academically online, at home, and in independent learning environments, South African students had to deal with pedagogical constraints that are specific to regional contexts. Khoza et al. [6] claim that scholars in underprivileged, rural communities struggled academically as a result of restricted access to particular resources. In

particular, Khoza et al. [6] identify students' limited access to resources as eLearning obstacles. The specific resources listed include a lack of computer access, educational software, unreliable internet connectivity, and devices for audio and visual communication. To demonstrate the disparities in connectivity around the globe, according to Johnson [7], 95% of people in Europe are online, with China, India, and the United States having the greatest per-nation internet usage rates. In contrast, in 2021, about 39.1% of Africans had access to the internet [8]. Notably, the penetration on the African continent, at 39.1%, is more than 19% lower than the 58.8% average for the world [8]. With a population of over 1.5 billion people, Africa has a low Internet presence, which means that millions of students have limited access to digital learning management systems. So, it is understood that COVID-19 caused educational disruption for pupils in rural areas of South Africa, where internet availability is lower than the country's average of 57.5% [8]. In this context, a sizable share of first-year university students from South Africa encounters the same digital barriers to success as do their counterparts from throughout the African continent.

The current investigation, which analyzes first-year students' narratives around their transitions from the high school setting into the University of Pretoria, is concerned with access to digital learning in higher education. As such, the primary goal of this study is to identify social and academic factors that cause first-year students to experience discourse elaboration and devaluation as they work to establish their identities as disciplinary members. To further clarify, Barnhardt and Ginns [9] define students' alienation in higher education as "disconnection in the context of a desired or expected relationship." Devaluation of discourses thus has alienation as a component. To expand Barnhardt and Ginns's [9] theory, academic alienation is evident when students are disengaged from the curriculum. Additional alienation symptoms include "normlessness, cultural estrangement, social isolation, meaninglessness, self-estrangement, and powerlessness" [9, p. 782]. The current study therefore seeks to interpret students' experiences of navigating eLearning with the goal of mastering academic literacies by taking alienation theories into consideration.

This analysis aims to show how COVID-19-induced eLearning produced experiences of disciplinary discourse elaboration and estrangement when students attempted to create transitory associations in eLearning environments. For example, to learn effectively, students must join disciplinary digital structures that promote peer interactions, academic literacies, and course material [10]. Therefore, to effectively manage teaching, eLearning, and assessment, and to achieve institutional outcomes, faculties in higher education host learning management systems. In order to determine how much LST 110 helped students have brief, associative experiences in the science domain, students' narratives in a discourse [11] paradigm were interpreted and discussed. The study then advances methodological suggestions for how academic literacies facilitators might change students' experiences from discourse devaluation to elaboration as the analysis concludes by defining

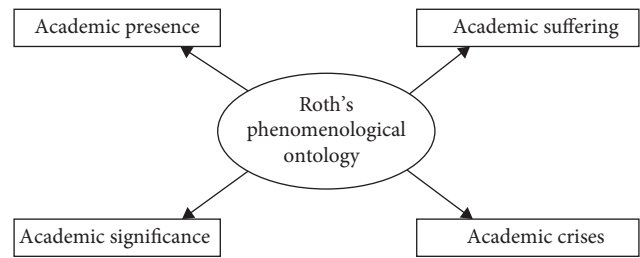


FIGURE 1: Roth's phenomenological concepts.

a discourse induction ontology that curriculum and instructional designers can use to create inclusive [12] student learning experiences by referencing learners' individual and disciplinary orientations to eLearning.

2. Methodology and Data Acquisition

The main goal of this analysis's qualitative methodology is to gain access to social and human experiences. Accordingly, the study adopts an ethnological lens. Hammersley [13] argues that "the aim [of ethnographic researchers] is to document the culture, [...] attitudes, and behaviours of [...] people." In keeping with this, the current investigation intends to explore the epistemological stances of first-year scientific students who are pursuing the acquisition of academic literacies through eLearning. Notwithstanding the incorporation of ethnographic goals, the primary methodological paradigm for this inquiry is phenomenology. Phenomenological analyses are concerned with the essences of human experience. A good example is Roth's [14] phenomenological ontology, which unifies sensory perception, experiential knowledge, and intellectual learning. Of importance to the current analysis is Roth's [14] linkage of social experiences to educational contexts.

According to Roth's [14] ontology, learning experiences partly result from students' aspirations to establish their agency and become academically noteworthy. However, Roth's [14] framework proposes that as students attempt to exert disciplinary agency, there are accompanying experiences of crises and suffering. Consequently, to explain students' online experiences of crises and suffering during COVID-19, this study activates Roth's [14] phenomenological concepts to illustrate academic streams of consciousness (see Figure 1). The notion of streams of consciousness is central to phenomenological projects [15]. In the phraseology of McGilvary [16], a founding phenomenological theorist, streams of consciousness are intersections between time, experience, emotions, and sensations. In summary, this dissection aims to shed light on the sensory and emotional experiences that students have while participating in an academic literacy program.

To reach designated methodological goals, data acquisition triangulation was employed. Moon [17, p. 103] defines triangulation as the integration of data collection procedures "to ensure [...] analysis and conclusions of a [...] study are as comprehensive and accurate as possible." Structured individual interviews, secondary sources, and the researchers as research instruments all serve as data-gathering techniques

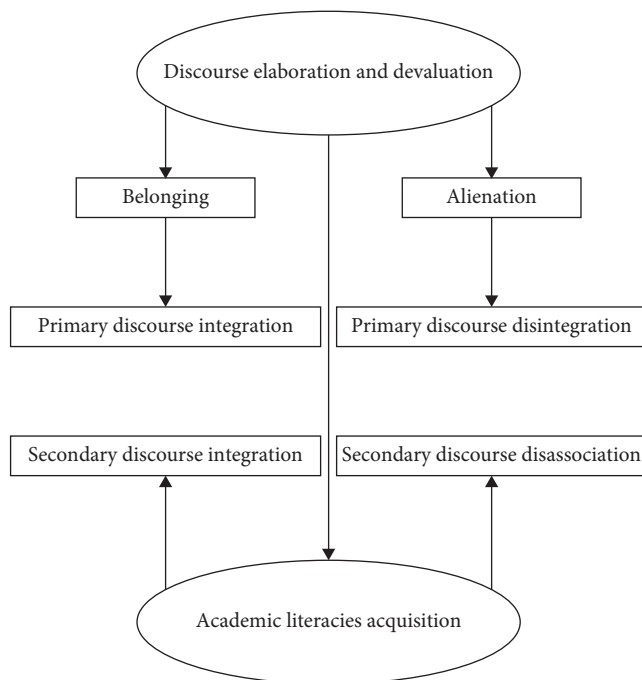


FIGURE 2: Discourse elaboration and devaluation in academic literacies acquisition.

for the current study's triangulation strategy. Data from eight students' narratives is extracted from a pilot interview schedule conducted with students based at the Hatfield campus of the University of Pretoria in 2021. As a result of COVID-19 restrictions, interviews were conducted online via Zoom.

The Atlas.ti app was then used to code the student narratives which emerged from interviews for analysis. Atlas.ti was also used to help analyze and correlate student remarks and narratives with Roth's [14] phenomenological ontology (see Figure 2). In a phenomenological paradigm, streams of consciousness include individuals' awareness of emotions, thoughts, time, and senses [16]. In accord, to enable "an interior look at why [students] behave in the manner they do" [18, p. 56] as well as their mental processes, the current study uses individual interviews. In addition, to support the phenomenological framework of the inquiry, secondary materials were consulted.

The three advantages of secondary sources in qualitative research, according to Heaton [19], are access to difficult-to-reach subjects, previously collected data, and theoretical juxtaposition. Hence, in order to support their ontic and epistemic claims regarding students' phenomenology, the current study's researchers incorporated secondary sources. Lastly, the researchers acknowledge their subjective agency as research instruments. The most important roles of researchers as analytical tools include sensitivity to the needs of participants, critical reflection on how data are interpreted, and ethical consideration for knowledge creation. In conclusion, the researchers are aware of their obligations to convey the experiences and narratives of the students in a way that respects their anonymity and is not offensive to the reading public.

3. Theoretical Framework

Three discourse theories are used in this study to analyze and display the data. There are primary discourses, secondary discourses, and discourses with a capital "D" [11, 20]. To clarify, discourses with a capital "D" combine a scholar's ontology and knowledge systems using a variety of media. As a result, discourse elaboration requires disciplinary and academic literacies that are crucial for knowledge sharing in higher education. Moreover, discourses transcend constructs of literacy as strictly reading and writing and, as a result, disciplinary discourses include a variety of academic literacies and skills that are crucial for creating, refuting, changing, and verifying knowledge. Therefore, the problems presented by this study are pertinent to students' abilities to create knowledge, disseminate information, and interact with others during COVID-19 in online disciplinary domains.

Also incorporated in this analysis are primary and secondary discourses with a lowercase "d"; they derive from discourse theory with a capital "D" [21]. Linguists can distinguish between pre-university and academic literacies using primary and secondary discourses. According to Gee's [21] theory, primary discourses are the first means of being, knowing, interacting, speaking, and employing multimodality. In contrast, epistemic practices and techniques that are utilized in formal, expert, and disciplinary contexts are included in Gee's [21] construct of secondary discourses. To give an example, scholars' use of learning management systems and adherence to formatting and submission requirements are examples of secondary discourses. As a result, understanding of academic departments' reading, writing, and knowledge systems is necessary for employing discourse tactics that are frequently used in higher education to develop and contest knowledge. Nonetheless, it is crucial to remember that inexperienced researchers, like the first-year participants of the current project, are unfamiliar with the epistemologies of senior scholars in higher education.

The phenomenological framework is used in the current study to highlight new, first-year natural science students' experiences of discourse elaboration and devaluation in an eLearning setting (see Figure 2). Accordingly, the theoretical framework is activated to expose divergent ways through which novice scientists attempt to demonstrate competencies with academic literacies in new, digital environments. The researchers want to show, in particular, how different combinations of home languages, family structures, communities, and pre-university school types, as well as parental influences, shape students' transitions into the natural sciences. Thus, the writers represent students' narratives to show experiences of discursive elaboration and devaluation by fusing phenomenological concepts and particular streams of consciousness with theoretical categories in a discourse paradigm.

4. Results

4.1. Primary and Secondary Discourse Intersections. The primary discourses of students and their interplay with secondary discourses in the university setting are the subjects of the researchers' first collection of data. The results indicate that

first-year natural science scholars encountered discourse elaboration and devaluation. In particular, it is found that students' linguistic backgrounds and family cultures directly shaped their initial experiences of discourse elaboration or devaluation in the university setting as revealed by their narrative coding in Atlas.ti. The study will now connect student narratives to phenomenology and discourse principles.

4.1.1. Student 1. Student 1, who identifies as a female, exhibits epistemic uncertainty when asked to describe her cultural upbringing—previously referred to as discourse emergence—while considering how she prepared for the university requirements of online eLearning. After revealing that she is a Tshivenda and Tsonga speaker, she states: “In terms of my culture, I don't know much about my culture.” But when the researcher presses her further to explain why she struggles to describe her upbringing, she adds: “I don't really follow it, because, they know why they say ‘don't do this because of this’. As for me I'd like to know why they don't want to do this.” According to the researchers' initial assessment, Student 1 struggles to comprehend the connection between her primary discourses and secondary discourses on campus. As proof, she questions behaviors that are expected of her in her cultural home. As a result, when integrating her primary discourse orientations with online, secondary discourses, Student 1 encountered a disturbance in her stream of consciousness. Accordingly, Student one's discursive elaboration and spatial transition into eLearning are hampered by the disjunction between time and being, which Heidegger [22] sees as crucial elements of streams of consciousness. Additionally, Student 1's use of Tshivenda and Tsonga as her primary languages has an impact on the way she elaborates her pre-university discourse in the context of English-based online learning. She declares that she is “not familiar with English.” In conclusion, Student 1 tried to combine primary discourses from her upbringing and high school with expert, secondary discourses in LST 110 (an academic literacy module) and eLearning environments; however, her narratives mainly implied discourse devaluation.

4.1.2. Student 2. Student 2 describes her pre-university upbringing as being religious in nature. She observes: “I was always brought up in a very Christian environment, everyone around me was Christian.” At home, Student 2 spoke English and Afrikaans. She says of her background in languages: “In my household, we have always spoken English. My dad can speak Afrikaans just because he learned to speak Afrikaans through business.” In this claim, Student 2 makes the implication that her father's proficiency in Afrikaans may make it easier for her to integrate her primary and secondary discourses at the university. Student 2 also talks about how frequently English featured throughout her pre-university experiences. Although she acknowledges learning Afrikaans as part of her school's curriculum, she clarifies: “I'm very English my whole life, everyone, my whole family, all my friends and my school had been English.” As a result, Student 2 was able to integrate phenomenological time and being [22] with formal, academic discourses in the online environment, thanks to her family and her English

interactions at school. Additionally, Student 2 was able to integrate with the institutional and linguistic histories of the University of Pretoria due to her exposure to Afrikaans epistemology in school and her family's use of the tongue.

4.1.3. Student 3. Both South Africa and the Middle East are the sources of Student 3's pre-university family, educational, and geographic traits. She was born in South Africa but attended school overseas until Grade 10. Student 3's primary discourses were English-based because she spent a lot of time away from Africa. The employment of English in Student 3's classrooms was a particular example of this. When asked about the languages spoken in her household, Student 3 responds: “We are [a] very Afrikaans family but we definitely have a lot of English people in our family.” Student 3 talks about growing up with parents that are “quite centered in themselves” in terms of her family's culture. Moreover, Student 3's parents instilled in her “a very strong self-esteem.” Due to her Afrikaans culture, Student 3 felt it was crucial to be conscious of “who I am, what I am, and what I stand for in my culture and my beliefs.” Evidently, Student 3's primary discourse-valued principles include self-confidence and self-knowledge. Owing to a family environment that encouraged self-assurance and pride in one's heritage through the use of Afrikaans at home and English at school, Student 3 demonstrated phenomenological congruence between time and being while transitioning to higher education.

4.1.4. Student 4. Student 4 identifies herself as Afrikaans-speaking. When asked to depict her linguistic repertoire, she states: “I'd say Afrikaans [but] the school I was in until I was about eight was Cambridge, so there was a lot of English.” Student 4 shows knowledge of her pre-university discourses after reflecting on aspects of her upbringing at home: “I suppose culture and religion go hand in hand sometimes, so I was brought up Christian and I still am.” Student 4 exudes confidence as related to situating herself in the new cultural ecology of the University of Pretoria. Her high level of self-assurance shows that she is able to integrate with the professional, scientific discourses in her first year. When asked if she experienced any social alienation during the first quarter of semester one, she responds negatively: “I wouldn't say I was being excluded but I have actually said this to my parents: I was in a very small school [...] now in the university [...] you are essentially a number.” As a result, while primary discourse characteristics, such as Student 4's multilingual identity, enabled her to confidently integrate into the application of academic discourses, the large number of enrolled students also caused her to experience isolation and recognizable discourse devaluation.

4.1.5. Student 5. Student 5 informed the researchers that she was born in an Indian home. When asked to reflect on her family's Discourse, she references her parents' open-minded principles by stating: “My parents are really open-minded but at the same time they are conservative.” Student 5 acknowledges the influence of her primary discourses in her orientation to social interactions. She notes: “My upbringing was very modest in a sense that it valued [...] basic things like, you know, be[ing] kind to people. Do not judge people.”

Moreover, Student 5 links values from her home discourse to her ability to interact with diverse discourses in educational contexts. In this regard, she observes: "I realise now that I came to university that people are really different and not a lot of people understand that other people are different." Student 5 attributes her capacity to integrate primary and secondary discourses in the university context to values inherited from her parents. She reflects: "My upbringing [and] my parents prepared me for the world and how different people are from myself." In summation, the discourses of Student 5 shaped her epistemology in ways that accommodate and associate with diverse cultures and knowledge systems on campus. In turn, Student 5 experienced confidence while interacting with culturally diverse peers.

4.1.6. Student 6. Student 6 associates herself with Hindu knowledge systems. With respect to discourse characteristics of her home, she informs the researchers that "We majorly spoke English [...] and so I am well fluent in English." In terms of her first language as embedded in her primary discourses, Student 6 was enabled to associate with the University of Pretoria's official language of instruction. Further, Student 6's admission of English as her primary tongue allowed discursive association with disciplinary discourses at the first-year level. In consequence, the "academic" values of Student 6's home enhance her capacity to associate with secondary discourses in higher education. In this respect, Student 6 remarks: "We are very academic in terms like everything about my home is really academic so that was all it was." As a result of exposure to academic argumentation in her primary discourse phase, Student 6 was enabled to associate with discursive practices at the University of Pretoria where logic and reasoning are essential secondary discourses. In contrast, Student 6 acknowledges that while she did not experience being out of place at the University of Pretoria, the academic strengths of her peers were eye-opening. She states: "Going from being [...] one of like the best students or like in the top students of my school, was now just average which made me feel a little bit weird because that was just like everyone else." Noticeably, perceptions of academic stratification in students' communities induced Student 6's experiences of discourse dissociation.

4.1.7. Student 7. Student 7 describes her pre-university discourse as being of Zulu heritage. In addition, when she considers her pre-university upbringing, she gives particular weight to experiences resulting from challenges brought on by her parents' employment arrangements. She recalls: "My father was not really there." As a result, moving between several cities with her mother played a big part in Student 7's discourse emergence. She notes: "My mom did most of the child growing but she is a prosecutor, so she is very paranoid." Due to exposure to her mother's secondary discourses as a legal expert, Student 7's own discourse emergence included exposure to a parent who, in her words, "is basically seeing the worst of society." Consequently, Student 7's pre-university discourse emergence included glimmers of a traumatized, shattered South African society through her mother's legal discourse. Phenomenologically, Student 7's transition to higher education is shaped by

social fragility. Her experiences demonstrate the necessity for instructional designers to pay attention to the traumatic backgrounds of some new scholars. Hence, refugees, women, and scholars from disadvantaged circumstances contribute distinctive discourses to disciplines. Especially important to Student 7 was the dissociative reality of not regularly having access to both parents. Nevertheless, her pre-university discourse was exposed to their expert secondary discourses. For instance, the fact that her mother worked for a university allowed her to incorporate academic discourses into her scientific worldview. As such, Student 7 was primed for argumentation, a common aspect of social relations in universities, by her parents' expert discourses, particularly their legalism.

4.1.8. Student 8. Dutch heritage is represented by Student 8. In discussing her family's linguistic traditions, Student 8 declares: "My home language is Dutch." However, she goes on to state: "The language that we actually speak at home is not pure Dutch or pure Afrikaans." Student 8 also admits the role that her parents' Christian faith played in the development of her pre-university discourse. She also states: "I feel a little bit intra-cultural because I'm from the Netherlands, where it's a little bit different. I didn't always feel as though I belonged with my peers." Student 8 claims that because of the peculiar Dutch customs ingrained in her family, she occasionally suffers from discourse disassociation with peers. Yet, she also mentions the camaraderie among her classmates at the University of Pretoria as a result of their shared cultural diversity. She observes that "UP [University of Pretoria] is very diverse and we have a lot of cultures, and we have a lot of different backgrounds, people with different backgrounds attending." Subsequently, in Student 8's perspective, her peers' discourse diversity enables a sense of integrating her primary discourses with the cultural diversity embedded in the collective character of her peers.

4.2. Secondary and Digital Discourse Intersections. This component of the data presentation puts a focus on how secondary, digital, and academic discourses in university settings overlap with students' primary discourses. Secondary discourses are methods of communication that make use of languages and technologies and are used in formal settings [23]. Thus, a number of secondary discourses are active in disciplines. Academic literacies are routinely affiliated with secondary discourses in universities' disciplines. For example, junior and senior scholars cannot avoid employing secondary discourses to articulate knowledge and ideas. Extracts from participant narratives are used in this context to show how discourse association and disassociation, or elaboration and devaluation, occur in eLearning. To note: Student 1 and 8's contributions were excluded from this portion of the data analysis owing to illness and personal reasons.

4.2.1. Student 2. Student 2's references to combining primary and secondary discourses through eLearning suggest experiences of devaluation. Here, discourse devaluation is framed as senses of inadequacy, marginalization, and isolation [24].

To illustrate, when asked to describe her sense of identity and communicative confidence since starting the first year at the University of Pretoria, Student 2 responds: “It is a tough question to ask, because we weren’t really in person, you know.” With respect to discourse transition into higher education, Student 2 experienced a sense of social isolation due to autonomous learning just like the other study participants. Still, she also points out enabling aspects of remote learning. In reflection, she remarks: “I was in my space, and I was just trying to keep up with the work. There was no social pressure which has its cons and pros.” Therefore, while other study participants felt overwhelmed by their workload and lost out on socializing with peers, Student 2 drew on pre-university discourses where working independently was the norm. In so doing, aspects of Student two’s pre-university discourse are elaborated.

4.2.2. Student 3. Student 3 is aware of the discourse barriers she faces in the eLearning environment, which limit her ability to interact with other scholars. She therefore believes that communication silos have the potential to inhibit peer-to-peer knowledge. After the researchers asked Student 3 to describe an event in which misunderstanding among peers occurred, she identified virtual interactions as the cause. To explain, she states: “I couldn’t see the person and couldn’t grasp if they’ve been sarcastic or serious and I didn’t want to say anything towards that because I didn’t want to offend them or [...] cause any more drama, I just kept quiet.” Due to this experience, Student 3 entered the first semester gradually and had to use discourse discretion. She describes discourse cautiousness with a peer by declaring: “It was like a moment whereas, it was like I had no idea how to communicate with this girl.” Taking her eLearning experiences into account, Student 3 concludes: “I think I am a very..., like I read people’s facial expressions and like the way they say something.” In accord, Student 3’s experiences reinforced her understanding of the relevance of oral, facial, and bodily literacies in secondary discourses. Following this, Student 3 tried to enhance alternative discursive modalities after becoming more aware of the various discourses that were constrained online. For instance, she discovered that peer judgments should be withheld and that eLearning may result in unexpected misunderstandings.

4.2.3. Student 4. Student 4 details her entrance into eLearning within the University of Pretoria’s digital domains as “very, very, very confused.” Immediately, she conveys a sense of difficulties in integrating primary discourses, with expert, on-campus, secondary discourses. She states that transitioning to online learning “was a process to learn to [...] figure out how everything works.” “Everything”, in this context, is studying online. Student 4 describes interacting online as “quite intense with a lot of information that just kind of came at me.” Because of this, Student 4’s pre-university reading comprehension strategies restricted her ability to have phenomenological experiences of a flow in time and existence. This is not meant to imply that delayed streams of consciousness are not developing in terms of how they connect to time and reality. Rather, as Natsoulas [25] declares, “The stream of consciousness [...] is not, after all analogous

to a river or stream of water, but [...] it consists of a succession of discreet instances or states of consciousness.” Hence, from a phenomenological standpoint, learning obstacles are necessary for development and can involve mastering academic literacies in new eLearning environments.

Student 4’s interactions with the interviewer were slightly different from those of other participants of this study in that they were not based on family or language. To demonstrate, Student 4’s ability to acquire digital and secondary discourses was temporarily hampered by the need to spend more time understanding a substantial amount of course content in a new eLearning setting. Yet, Student 4 also experienced success while fusing her primary discourses with digital modes. In particular, she describes how online interactions with peers enabled the formation of “a few study groups [where] there weren’t any barriers [and they] all clicked very well and work well together.” Student 4 also observes that “We have little groups for all the different modules we’re in and we ask questions if we need help with anything.” Despite technological challenges in adapting to Blackboard’s (UP’s learning management system) groups and many learning applications, she admits: “Personal connections haven’t really been made on such a level” as she was previously accustomed to in high school. In review, Student 4’s pre-university modes of learning crossed paths with new digital platforms. In regard to the phenomenological concepts of being and temporality, Student 4 identified heavy workloads and distant relationships with peers as interruptive variables.

4.2.4. Student 5. Student 5’s introduction to the researchers opened with the following disclosure: “I have social anxiety to an extent.” In short, and in resemblance of Student 4’s learning hurdles, Student 5’s anxiety symptoms are primarily related to the eLearning she endured for the first three months of the academic year. To illustrate, Student 5 reveals:

It is hard for me to make friends and it is even harder when it is online because now you have to actually make a bigger effort. Like, I need to find people’s numbers and I have to message them, and I have to keep a conversation going.

In the above disclosure, Student 5 identifies numerous interruptive factors in her disciplinary, phenomenological stream of conscious. Making friends, creating networks outside of eLearning, and continuing disciplinary conversations are all inhibitors that disturb time and being. What this means is that Student 5’s inability to interact and speak with peers easily restricts her access to disciplinary and secondary discourses. In this context, Student 5 expresses a desire to be part of a social network that Gunawardena [26, p. 4] suggests “expand[s] knowledge by making connections with individuals of similar interests.” When interacting with the Blackboard learning management system, Student 5 attempted to operate in a social network-like manner. As an illustration, she states:

I have put myself in a situation to get myself adapted in a sense that I can say hi and if you do not say hi back, I will be okay with it. And

that is how, like, being social on like an online platform [is].

Taking everything into account, Student 5's narrative suggests discourse devaluation within a disciplinary context. Although she had a strong desire to interact with her peers, Student 5's transition to the first year of study was hampered by her concurrent sense of failure in networking. Nonetheless, her individual agency and willingness to modify aspects of her communication styles permitted online interactions with peers, course content, and academic literacies.

4.2.5. Student 6. Student 6 reported that the integration of her pre-university education, cultural discourse, and on-campus eLearning processes went well. As evidence, she suggests that online learning is "probably the same if we are on campus." However, Student 6 also highlights what she sees as eLearning's limitations: "Spending every waking minute that we have outside of our lecture on work related content [is] really taxing [on] our mental health." The main issue raised by Student 6 is that too much time is spent traversing learning management systems, which, although utilized for learning, prevents students from mastering distinct academic literacies. Student 6 addresses the issue of excessive workloads, echoing the worries of the other survey participants. Nonetheless, Student 6 exudes confidence in integrating pre-university modes of learning with new disciplinary discourses. Student 6's disciplinary stream of consciousness was able to develop despite being interrupted by a lot of coursework, in accordance with the phenomenological conceptions of time and being. However, the heavy workloads that came with studying online led to feelings of academic stress. In conclusion, Student 6's academic pressure caused her disciplinary discourse devaluation, but her commitment to academic success was unaffected.

4.2.6. Student 7. The key discourse interactions described by Student 7 during the pre-university phase involved frequently moving locations. Her parents, as she recalled, resided in various South African cities. Student 7 encountered difficulties moving to online usages of digital, secondary discourses even though she had grown accustomed to navigating many different geographic domains. She describes her experiences of discourse devaluation as follows: "I very much felt like a fish out of water." The following statement serves as an example of how eLearning is a variable in Student 7's experiences of discourse devaluation: "It was a very big adjustment [and] being in university in this online environment has taught me that I do not do well when I am put in environments that I am not completely prepared to go into or very comfortable with." Digital learning can alienate new scholars' discourses, as seen by Student 7's dissociative interactions in the eLearning realm. Additionally, Student 7 describes eLearning as a "struggle." In essence, Student 7's attempts to integrate pre-university discourses with secondary, academic discourses in the internet sphere entailed phenomenological disruptions. For instance, it was challenging for Student 7 to adopt new disciplinary identities because of struggles with transitioning to online communication and new ways of managing time. So,

Student 7 summarizes her eLearning experiences as "really hard" since students must "make contact" and "be everything that [they] need to be" online.

5. Discussion

The discussion sets forth the following aim: to extract key categories of analysis as emerging from students' narratives. Additionally, the discussion combines the findings with those of earlier research on first-year students' entry into academic disciplines. By incorporating previous research, the importance of the analysis's findings is further emphasized. The authors admit the limits of their study when they explain and theorize their findings. Thus, the presentation and theorization of the main findings incorporate the constraints of the current investigation.

5.1. eLearning as a Social Space. Perceptions of online learning as social spaces were one of the three main categories of analysis that emerged from researchers' interactions with first-year natural science scholars. It is proposed that in varying degrees all study participants referred to interactions in learning management systems as social events. Hence, the study's participants showed a desire for collective intelligence [27]. To further clarify, Rogers's [27] description of collective intelligence integrates various points of view, technologies for connecting knowledge, and upkeep of disciplinary bonds. Unlike face-to-face learning, retaining collective intelligence, however, has special difficulties. As previously noted, South African scholars have a variety of problems accessing computers, mobile devices, and stable learning environments. Several studies, such as those by Dube [12], Mukuna and Aloka [28], and Manase [29], describe the challenges that academics and educators faced when it came to teaching and learning during the pandemic. Primarily, these researchers emphasize the relationship between interpersonal communication and the limitations that digital pedagogies may impose on disciplinary interactions. For example, Manase [29, p. 197] reasons that eLearning can "enable or constrain students' abilities to achieve what they value in higher education." As such, disciplinary discourse growth may stagnate if technology interrupts students' engagements with one another, teachers, and course material. The current study's limitations with regard to student interactions in online areas must be acknowledged, though. The analysis, for instance, only considered peer interactions within the context of Blackboard's virtual classrooms, while a wide range of learning networks are domains. Last but not least, students' desire for interaction highlights the social dimension of education as relating to disciplinary streams of consciousness.

5.2. Language and eLearning. The current study discovered that students' linguistic repertoires were a recurrent analytical category. Noticeably, the majority of participants stated that their use of English and Afrikaans at home and in school allowed for the elaboration of disciplinary discourses and adjustment to online learning. Yet, for students who previously used the official language of the University of Pretoria as a second or third language, the predominant English learning

culture proved to be academically challenging. Universities' language policies, accordingly, are active in novice scholars' acquisition of disciplinary discourses. While the primary language of instruction at universities is English, the majority of South Africans in fact speak isiZulu. In 2012, for instance, 59% of students at the University of KwaZulu Natal listed isiZulu as their first language [30]. Thus, a reconsideration of the pedagogic value of indigenous tongues should be considered if linguists and academic developers in South Africa are to critically modify methods targeted at socializing young scholars into disciplines. While the current study is limited in its exposure to indigenous language benefits in digital spaces, Munyadziwa and Mncango's [31] analysis shows pedagogical benefits in virtual environments. The ability to code-switch and provide meaning to disciplinary concepts while generating new knowledge is demonstrated in Munyadziwa and Mncango's [31] investigation. It should be emphasized that Munyadziwa and Mncango's [31] inquiry focused on established social networks like WhatsApp, Facebook, and Twitter for learning purposes, whereas the current study is placed in the context of Blackboard. Nonetheless, and perhaps tangentially, the current study found that providing opportunities for pupils to code-switch and use their mother tongues in the classroom may untap unrealized pedagogical potential in digital spaces.

5.3. Online Workload Commitments. The third analytical category that emerged in this article's data was the matter of heavy workloads in the digital sphere. Multiple participants indicated they had trouble managing the extensive online reading materials, assessments, and extra activities that are part of their academic literacy module, LST 110. As a result of the study's findings, lecturers, instructional designers, and curriculum developers should carefully consider how many formative and summative tests there should be in online modules. For instance, Jaggars and Xu's [32] theorization suggests that the quality of students' grades is correlated with the caliber of interpersonal interactions in digital environments. Subsequently, the quality of online learning may suffer if students feel overburdened with tests, assessments, and required exercises. As an alternative, evidence from Jaggars and Xu [32] suggests that meaningful interactions between students, staff, and the curriculum help improve grades. Therefore, as the results of the current study suggest, instructional designers should balance meaningful interactions among new disciplinary members with necessary assessments. As it relates to the incorporation of the phenomenological concepts of time and being [22] in this study, transitions into higher education may be hampered when students are overburdened with summative assessments. Certainly, lecturers require modes of evaluating students' attainment of course outcomes. Nevertheless, the strain that comes from having too many tests, quizzes, and graded tasks should be considered, as well as possible imbalances with meaningful disciplinary interactions. So, narratives from the study at hand suggest that when developing first-year eLearning, it is important to consider students' grades together with their abilities to integrate time and their developing disciplinary identities.

6. Conclusion

In conclusion, academic literacies facilitators must carefully plan when using eLearning because it is a complex pedagogy. The instructional choices that literacies facilitators make in learning management systems affect how students experience and are able to transition into different disciplines in higher education. The results of the current study show that first-year students' perceptions of belonging, effective communication, workload management, and language use are all directly shaped by eLearning. Therefore, problems of identity formation, language transfer, and workload sizes are active variables when analyzing how students migrate between their primary discourses and new, expert discourses. The results of the current study suggest that disciplinary knowledge acquisition is a social endeavor, with implications for academic literacies facilitators and disciplinary members. Participants in this study highlighted several peer, content interactions that influenced how they transitioned into the institution. So, phenomenological continuity—involving time and being in students' learning—was evident in the areas where supportive peer relationships and moderate workloads were indicated. Contrarily, the participants' narratives reveal that disciplinary streams of consciousness are disintegrated by communication breakdowns and heavy workloads. Thus, the key implications of the current study's findings for curriculum and instruction design in higher education are as follows. Students struggle to progress when there are uneven, meaningless interactions with too many summative assessments. Overassessment of students in digital spaces exacerbates a sense of an overwhelming workload. Hence, to support new students entering the academy, this study recommends developing assessment events that explicitly aim to build meaningful peer connections through academic literacies. Accordingly, instructional and curriculum designers may engage students' discourses by promoting meaningful relationships around disciplinary knowledge. The importance of literacies, especially academic writing, in producing knowledge for particular communities is highlighted by a discourse methodology. The researchers of this article, therefore, recommend that future studies on the development of academic literacies in online learning environments concentrate on how staff members and students perceive significant interactions that are fostered through assessment strategies. In this way, future knowledge may strengthen students' capacities to develop as discipline members as they enter higher education.

Data Availability

Readers interested in accessing data underpinning this analysis may contact oscar.eybers@up.ac.za.

Ethical Approval

The researchers express their sincere gratitude to the Ethics Committees of the Faculty of Humanities and the Natural and Agricultural Sciences Faculty at the University of Pretoria for generously permitting this project to proceed. Their unwavering commitment to upholding ethical

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

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