



Educational Studies

A Journal of the American Educational Studies Association

ISSN: 0013-1946 (Print) 1532-6993 (Online) Journal homepage: <http://www.tandfonline.com/loi/heds20>

The Cultivation of Learning Dispositions among First-Generation Disadvantaged Students at a South African University

Najwa Norodien-Fataar

To cite this article: Najwa Norodien-Fataar (2018): The Cultivation of Learning Dispositions among First-Generation Disadvantaged Students at a South African University, Educational Studies, DOI: [10.1080/00131946.2018.1509862](https://doi.org/10.1080/00131946.2018.1509862)

To link to this article: <https://doi.org/10.1080/00131946.2018.1509862>



Published online: 05 Oct 2018.



Submit your article to this journal [↗](#)



Article views: 14



View Crossmark data [↗](#)



The Cultivation of Learning Dispositions among First-Generation Disadvantaged Students at a South African University

Najwa Norodien-Fataar 
Cape Peninsula University of Technology

This article discusses the learning dispositions of first-generation disadvantaged students at a university in South Africa's Western Cape Province. Based on qualitative data collected over a 2-year period, it focuses on findings from 7 purposively selected students at this university. Utilizing Bourdieu's concept of habitus and Wacquant's conceptual elaboration of this concept, the article explores the affective, cognitive, and conative (practices) dimensions of the students' habitus as interrelated aspects crucial to understanding how they develop their dispositions to learn. The article illustrates how the students' learning dispositions are produced through the active and strategic exercise of each of these 3 (affective, conative, and cognitive) interrelated embodied dimensions. I argue that understanding these embodied habitus generating practices are crucial for comprehending how they establish effective learning dispositions for successful educational engagement at their university. The significance of this article lies in offering a perspective of first-generation disadvantaged students' learning dispositions in respect of establishing their educational engagement practices at the university.

INTRODUCTION

Current debates on student learning experiences in higher education emphasize the view that students who are actively engaged in their learning have better prospects of persistence, enhanced learning, and success (Kuh, 2009). One key aspect of this view is that students' ability to become involved in educational activities is central to their successful learning. Surveys of student engagement such as the South African Survey of Student Engagement and the North American Survey of Student Engagement emphasize the need to benchmark the number of hours students spend on educationally useful activities as a marker of successful learning (Kuh, 2009; Strydom, Basson, & Mentz, 2010). Although this may be a key concern in student learning debates, few studies focus on how first-generation disadvantaged students

Correspondence should be addressed to Najwa Norodien-Fataar, Fundani Centre for Higher Education Development, Cape Peninsula University of Technology, Keizersgracht and Tennant Street, Cape Town 8000, South Africa. E-mail: norodien-fataar@cput.ac.za.

acquire the appropriate dispositions for engaging in their learning at the university. The focus of this article is on the way in which they go about acquiring and cultivating appropriate learning dispositions toward their educational success at the university.

This article explores the learning experiences of first-generation disadvantaged students at one university. The focus is on understanding the nature of their learning by exploring the activities that they embark on, the strategies they develop to address their sense of alienation and disconnection, and the cultivation of learning dispositions deemed necessary for university study. In South Africa, disadvantaged students are defined as first-generation students from poor schooling backgrounds, who live in poor socio-economic circumstances, often accomplishing their education in a second or third language. *Disadvantage* refers to their position in relation to these structures that influence their educational engagement. My use of the term focuses on the ways in which they exercise their agency to establish productive educational engagement practices at the university.

A review of the extant literature on student learning experiences in higher education emphasizes the crucial role of building relationships in determining university students' learning experiences (Case, 2007). Mann (2001) discusses students' position as university outsiders and their experiences of alienation when they enter their institutions. Bloomer and Hodkinson (2000) concentrate on students' dispositions to learn, adapt, and transform over time. Expanding on these discussions, this article explores how the students selected for this study go about acquiring and cultivating appropriate learning dispositions that enable them to address their sense of alienation at the university.

This article is based on a broader study that focuses on the educational engagement of disadvantaged students at a university. By adopting qualitative research methods such as semi-structured interviews and focus group discussions, I attempted to understand how students engage with their learning and the types of learning dispositions that emerged while studying at the university. This article employs Wacquant's (2014a, 2014b, 2015) elaboration of Bourdieu's concept of habitus to discuss the ways in which students go about engaging with their learning and constructing their learning positions. Wacquant (2014a, 2014b, 2015) highlights the cognitive, conative, and affective elements of habitus as the core constituent properties of habitus; this approach allows me to examine how students acquire knowledge and skills during their courses, the activities they generated to establish their learning, and their affective engagement with their learning. By *affective engagement* I refer to students' feelings of connection, sense of belonging or alienation, aspirations, and drive to engage in their learning. I specifically draw on Wacquant's affective dimensions of habitus, which refers to students' motivations, aspirations, and determination to study at the university.

THEORETICAL FRAMEWORK

This article utilizes Bourdieu's (1990, 1998) concept of habitus and Wacquant's (2014a, 2014b, 2015) elaboration of the concept of habitus to understand the ways in which students engage in their learning at the university. Bourdieu offers the concept of habitus as a way of explaining the relation between individuals and their social world. In other words, he suggests

that the concept of habitus provides “a way [of] understanding how social structures and individual agency can be reconciled” (Maton, 2014, p. 49). Bourdieu emphasized that a crucial part of understanding habitus is to understand the relation between individual agency and the field in which individuals establish their practices. He argues that there is an interdependent relationship between the field and habitus. By *field*, Bourdieu means the social space that consists of institutions and people in which interactions occur. The habitus of individuals exists in relation to the field; field influences the habitus. In this article, *field* is taken as the educational environment of the university, such as the courses that the selected students are enrolled in, and the teaching and learning support at the university, in addition to the generic support platform that the university provides its students to aid their learning.

Bourdieu explains the notion of habitus as a form of embodiment thus:

It [habitus] is the socialised body. The structured body, a body which has incorporated the immanent structures of a world or of a particular sector of that world—a field—and which structures the perception of that world as well as action in that world (Bourdieu, 1998, p. 81).

This quotation highlights the view that habitus is created in and through social processes and that the body is central to the emergence and formation of habitus. Habitus refers to “ways of standing, speaking, walking, and thereby of feeling and thinking” (Bourdieu, 1990, p. 70). Bourdieu points out that habitus consist not only of mental abilities, but also bodily gestures and comportments that individuals are not aware of. At the same time, Bourdieu suggests that habitus “refers to something historical, it is linked to individual history” (1990, p. 86). The individual’s history is a core dimension of habitus and vital to understanding the person’s actions in society.

A key dimension of the relation between habitus and field is the notion of hysteresis, which is defined as the “disruption between habitus and field” (Hardy, 2014, p. 127). *Hysteresis* refers to the “field conditions affecting individuals within a social space” (Hardy, 2014, p. 128). This means that individuals might experience a sense of feeling out of place within a particular field. Hysteresis explains a “gap” between the conditions in the field and the individuals’ disposition to understand and engage in the field (Hardy, 2014, p. 30). In response to their sense of disconnection in their environment, individuals engage in practices, through their habitus, to augment their adaptation and survival in such disjunctural contexts.

This article uses the concept of hysteresis to explain the sense of disconnection that students experienced in the university (field) and the subsequent strategies that they employed to engage in their learning. I discuss how students develop strategies by accessing knowledge and resources within the social spaces of the university to be able to engage in their learning. I argue that by responding to, and addressing, the hysteresis in their university field, they are able to effectively cultivate a productive learning habitus.

Wacquant (2014a, 2014b, 2015) expands Bourdieu’s (1990) notion of habitus by delving deeper into the notion of habitus and the underlying dimensions and properties of the concept. His elaboration of habitus provided me with a lens to explain the types of learning dispositions that the students develop and deploy in their learning engagements at the university. Wacquant challenges dualist notions of social understanding in terms of which external

structures exist parallel to, but apart from, the rational decisions of human beings. Instead Wacquant (2015, p. 3) explains that structures in society have a significant impact on individuals in ways that are located “deep within the body as perceptual grids, sensorimotor capacities, emotional proclivities and indeed desire itself.” He argues that social scientists have overlooked the crucial dimension of the “corporeal” in understanding human behavior (2015, p. 2). He favors an understanding of human behavior that involves not only rational thinking, but also the role of the body as “flesh, desire and passion” (2015, p. 2), which he suggests would enable a fuller understanding of human practices. Wacquant (2014a) emphasizes the need to understand the practices of human behavior that is not only based on calculating the cost and benefits of an action, but rather on the acquisition of dispositions through bodily actions. Wacquant (2014b, p. 119) argues for an understanding of social practices as emanating “from the body” rather than being “of the body.” He suggests that understanding social action from the perspective of creating and building social processes would explain the “active side of embodiment” (Wacquant, 2014a, p. 10). Wacquant calls for understanding of “the primacy of embodied practical knowledge arising out of and continuously enmeshed in webs of action” (2015, p. 2).

Wacquant (2014a) develops three core constitute components of habitus acquisition—the cognitive, conative, and affective components—and argues that a deeper understanding of habitus requires an analysis of how individuals embody their experiences. The “cognitive, conative, and affective building blocks of habitus” are regarded as the underlying layers encompassing social practices (Wacquant, 2015, p. 4). The affective, conative, and cognitive elements, he argues, are “implanted, cultivated, and deployed over time through our engagement with the world” (2015, p. 3). Wacquant (2014b, p. 126) explains that,

Forging of habitus is quintessentially collective: The categories of perception are discerned and taught through joint activities; the skills learned by observing and honed by acting in concert with members; the desires are aroused and channelled toward their proper objects in repeated interactions with other participants sharing the *illusio* specific to the universe studied.

This quotation highlights the interrelationship between the affective, conative, and cognitive components of habitus and the critical role of engaging with social structures in society.

Wacquant (2014a, p. 8) describes the affective element of habitus as “the vesting of one’s life energies into the objects, undertakings and agents that populate the world under consideration.” He refers to the distress that individuals experience and the awareness of their sense of alienation or connection that they feel within a specific context. This article explores the affective elements of students’ habitus by drawing attention to their motivations, aspirations, and determination to study at the university. At the same time, it focuses on their feelings of disconnection when they encounter constraints at the university. The tension between their feelings of disconnection and their aspirations to study is presented as a form of misalliance.

Although the affective component of habitus is crucial in individuals’ lives, the conative element works in tandem with the affective component to highlight the intentions and goals of individuals in social spaces. The conative element of habitus is explained “as made up of proprioceptive capacities, sensorimotor skills, and kinaesthetic dexterities that are honed in and

for purposeful action” (Wacquant, 2014a, p. 8). This refers to the individual’s attempts to reflect and develop purposeful actions to make sense of their environment. The article focuses on exploring the conative aspects of students’ engagement by focusing on how they cultivate their “will to learn” (Barnett, 2007, p. 15) at the university by disciplining their bodies for educationally useful activities. A central aspect of their motivation to learn is the use of appropriate bodily comportment and discipline to develop learning activities. A key aspect of the conative elements is the use of information communication technologies (ICTs) and social media tools as essential for embedding learning practices in their lives.

Wacquant stresses the vital role of the cognitive component in habitus acquisition, which consists of “the categories of perception through which agents cut up the world, make out its constituents and give them pattern and meaning” (2014a, p. 8). For the purposes of this article, the cognitive element of habitus refers to students’ ability to understand scientific concepts and competently carry out academic tasks, such as writing and reading, to succeed; as well as how they come to understand, learn, and process information in the scientific courses. He refers to the importance of the individual’s ability to learn and acquire knowledge and expertise within a specific social space. A vital aspect of their engagement with their learning is the recognition of students’ home language (Xhosa and Tswana) in deepening their understanding of scientific terms and the acceptance of English as a core part of the exercise of their “will to learn” (Barnett, 2007, p. 15).

Bourdieu and Wacquant’s (1992) theory of habitus is thus suitable to enable an analysis of not only the cognitive elements of students’ experiences of learning but, rather, the cognitive, together with the affective and conative, experiences of learning during their years of undergraduate study at the university. Their theoretical approach offers a perspective that acknowledges the central role of embodied knowledge rooted in students’ desire to learn, their ability to take action and the capacity to master concepts and develop meaning. Students’ learning habitus is formed in relation to their particular field of higher education, and I suggest that understanding the complexity of the embodied student would provide an acute understanding of the nature of students’ learning at university.

METHODOLOGY

This article is part of a larger qualitative study that focuses on the educational engagement practices of disadvantaged first-generation students at a university of technology. The sample population was senior Applied Sciences students in their fourth year of study who participated in a mentoring program. From this group, seven students were purposively selected based on the criterion that they were first-generation students who came from low socioeconomic backgrounds. Purposive selection emphasizes information-rich participants (Patton, 2015) and allowed me to gain an in-depth understanding of how this specific group engaged in their learning. The participants were registered for the extended curriculum program at the university, which is provided for students, typically from disadvantaged backgrounds, who enter the university with low high school exit examination grades. The students entered the university via the extended program, which they felt gave them sought-after access to university study.

These types of students do their first year of study over 2 years and are provided with additional academic support. All interviews and a focus group discussion took place in 1-1/2-hr sessions. The focus group discussion allowed me to clarify themes that emerged from the semistructured interviews.

Data were generated from two sets of semistructured interviews with the seven participants who were purposively selected to explore the educational engagement practices of students at the university. The first set of interviews took place in the final (fourth) year of their studies and focused on students' family lives, the communities they come from, their schooling histories, how they gained admission to the university, their interactions and engagements with the university's support structures, lecturers, and fellow students, and how they approached their learning. The second set of interviews took place in the fifth year of their studies. By this time, four research participants had embarked on their B.Tech degrees at the same university, two participants had to redo key subjects to complete their credits for graduating with their diplomas, and one participant had left the Western Cape Province after graduating with a diploma, to work in her home town in South Africa's Gauteng Province and could not be reached for the second interview. The second interviews focused on eliciting the students' account of the strategies they adopted to be able to learn, their approaches to their learning, and the skills and patterns of learning that they developed on their particular courses in the Applied Sciences Faculty.

My role as a lecturer based in a center for teaching and learning responsible for providing mentor training to students was significant. The students saw me as a sympathetic listener. I was aware that my researcher positionality might have affected the data and the findings (Berger, 2015). I took care to probe their answers by asking them for explanations when they were giving formulaic responses. I used the participants' own words extensively in this article by providing quotations that illustrate their points of view and perspectives. This was done to reduce the subjectivity that a researcher may introduce in the data analysis (Patton, 2015).

I used an inductive approach to analyze the data, which meant that I had to generate concepts and explanations from the data that I collected. Patton (2015, p. 542) suggests that "inductive analysis involves discovering patterns, themes, and categories in one's data." I was able to identify patterns and themes in the data by using the constant comparative method of coding. Through this inductive method of analysis, important concepts and themes were extracted and patterns of data were highlighted. Similar ideas were grouped together into themes.

After the themes were developed, I followed a process of analytical induction, which involved comparing the data with the theoretical frameworks of Bourdieu and Wacquant (1992). Taylor and Bodgan (1984, p. 127) suggest that analytical induction is a "procedure for verifying theories and propositions based on qualitative data." Through the data analysis, I was able to analyze the data and generate analytical categories to elucidate the research. The key themes that emerged from the data, and on which this article is based, are: (a) students feelings out of place and disconnected from the course; (b) developing habits of learning and knowing what and how to learn; (c) grappling with their home language, as well as English to learn; and (d) the ubiquitous use of students' mobile technology to learn.

EXPERIENCING DISCONNECTION IN THE UNIVERSITY FIELD

This section focuses on the ways in which the selected students engaged with their learning during the early period of their university study, mainly—but not exclusively—during their first year. I explore the students' feelings of disconnection and sense of feeling out of place early on during their studies. Wimpenny and Savin-Baden (2013, p. 321) describe these feelings as “a disconnection between their world and the new material.” The data show that students' feelings of disconnection were based on a number of factors that they perceived as barriers to their learning. One of the participants, Musa, received low marks in science subjects during high school and felt academically unprepared when he was admitted to the university. He explained how he negotiated with the head of the department to gain access to the course.

I had a problem with Maths and Physics but, luckily, when I applied at the university, I had a meeting with Dr. Du Plessis because I had bad marks in Maths and Physics. So, we negotiated that since I've got less marks in Maths and Physics, so she can give me the opportunity from January until June. But if my marks are very low, then she will exclude me. So, she took me to the Extended Programme.

Musa's comments show that he was aware of his inadequate preparation in Maths and Science. Besides feeling academically unprepared in these subjects he also pointed out that he never studied Biology in high school, which was a key subject for the applied sciences course he was enrolled in. Musa's lack of adequate knowledge in these key subjects contributed to his feeling of disconnection. He nevertheless felt motivated to learn when he was given the opportunity to be part of the Extended Programme, which involved an additional year for his course of study. Naledi, on the other hand, felt out of place at the university as a result of having to do university study in the medium of English. She explained that,

Actually, at the beginning in my first year, there were a lot of difficulties regarding language, because of my background here. Englishwise. I struggled with English. Here at school I was taught by my Xhosa people. So that English communication, it wasn't that much. I didn't have a background, a good background. So I was struggling in understanding English. But then I tried to attend to that, I tried to just not let that block my way.

This comment shows that she had to confront her English language deficiency. She, however, highlighted a specific Physics lecturer's classes as significant for her learning:

Yeah, since I mentioned my background, especially Physics, they used to explain the specific concepts, specific words in ... like the physics word in Xhosa. Yeah, they'll explain to us, this name for physics, the specific name in Physics, and then in Xhosa it means like this. I was impressed with the Physics subject—especially my lecturer. That physics lecturer because he could explain to us in a sense that you will feel even if you were not good in Physics, but you'll make it to be good ... to feel that you can manage to do it.

Her comments show that she was motivated to learn Physics because her mother tongue was used to explain concepts; this, in turn, made her feel that she could learn Physics more effectively. The acknowledgement of her home language in the lecture gave her a sense of connection and made her feel motivated and confident to learn Physics.

Sifiso highlighted feelings of alienation during his first year at university when he observed social class differences between himself and other students. He commented that,

So you're like, "I cannot afford what they have," because sometimes you just see them typing on their computer (laptop). Like, how will I get there? At that time, your money is not like up there much, but you want to be there. So the impression of coming here was like, "Did I make the right choice?" So it just makes you feel down really, when you see something else that you're not expecting and you get to the point of asking yourself: "Did I make the right choice?"

This quotation illustrates the discomfort that Sifiso experienced during his first year of study when he observed students whom he perceived to have more resources. Sifiso's lack of financial resources made him feel alienated from the university. Not being able to own a laptop and having fewer material resources was a significant part of his sense of not belonging. Pulane experienced similar feelings of discomfort during her first year. She commented,

It's just that I wasn't, when I started my first year, I was very hungry for knowledge by then, because I was so tired of just being at home. It's just that nervousness of being in first year and it's your first time to get to be taught by people who are different from your background. Because in high school and junior school we only had Black teachers.

Pulane described her sense of disconnection through the nervousness she felt about being taught by people from a different (racial) background. Her comments show that she was acutely sensitive to the racial differences between herself and the lecturers. She explained that,

The thing is that I was very nervous for my White lecturers and I think it's the only thing that prevented me from passing the subjects. When you are in first year, sometimes you are very nervous, even if you can achieve something. There is that barrier, nervousness that is holding you back. I just don't know what made me, like when you are new in a place you're just nervous doing something. You are not yourself.

Being taught by White lecturers for the first time in her life had a significant impact on the way Pulane engaged in her learning. She felt that her tentativeness and nervousness in her interaction with these lecturers prevented her from doing well on her courses and achieving better results.

The participants in this study experienced a mismatch between their earlier school experiences and the conditions at the university for which they were unprepared. Bourdieu and Wacquant (1992) refers to this mismatch as *hysteresis* and suggests that time is needed to respond to the conditions in the new field. Wacquant (2015, p. 3) explains that "suffering" is an essential part of an individual's habitus and can be experienced in social contexts. Wacquant (2015) describes suffering as the distress that individuals experience and the

awareness of their sense of alienation within a specific context, as in the case of these students, where the university's education context (field) was vastly different, compared to their school context. Pulane experienced nervousness that caused her anxiety and Sifiso felt aggrieved by his lack of study resources. Musa thought that his lack of scientific knowledge would influence his ability to succeed in the scientific course. Naledi considered her lack of proficiency in the English language as a barrier to her studies. Each of the selected participants drew attention to aspects within their educational environment that led to anguish and anxiety. Wacquant (2015, p. 4) suggests that these factors are the "sedimented" experiences of individuals' habitus, which are "are gradually deposited in our body as the layered product of our varied individual and collective histories." Factors such as class and racial differences, inadequate preparation for science study, and the lack of linguistic resources were an intricate part of the students' embodied identities that shaped how they perceived themselves in relation to their university studies, especially early on. The next section focuses on how the students cultivated their dispositions to learn at the university.

CULTIVATING DISPOSITIONS TO LEARN AT THE UNIVERSITY

Wimpenny and Savin-Baden (2013, p. 322) suggest that "connecting with peers and mentors and expectations with the academic study supported engagement and tended to reduce disjunction." My exploration of this aspect shows students' ability to develop purposeful activities and deliberate strategies to mitigate their feelings of disconnection to facilitate their learning. Relying on their peers is a key strategy. Musa explained that he was part of a study group with two other students. He explained the value of the study group thus:

It was great because those guys are great. When I'm looking at myself, they are better than me and they always make sure that they don't leave you behind. So they are always there for me and so I learnt a lot.

He describes his interaction with them as a "kind of competition" that motivated him to make up for his inadequate knowledge of science. Sifiso commented that "we are in the same group, live in the same area, and live in the same house." During their senior years, they rotated homes and lived and studied together. This gave them the opportunity to become immersed in their studies and share experiences and knowledge. They thus spent time organizing their personal space in their homes to engage more effectively in their learning. Musa and Sifiso came from the same home area, shared the same language and schooling experiences, and were accessible to each other. These familiar circumstances allowed them to form a study group in their homes and in the community. Both Musa and Sifiso saw the value of peer study groups. They felt that they could learn from, and motivate, each other. These support practices enabled them to feel more connected to the course they were studying and engendered feelings of motivation and perseverance to engage in their learning. I argue that these type of practices assisted the students in making them feel more affectively connected to their studies and to the university.

Naledi approached her more senior peers who were in their third year of study to help with Microbiology. She described the kind of help she received from them by explaining that

they helped me a lot because in Micro[biology], I was struggling with Micro since there is a lot of theory and you must do summaries and you must explain yourself when you are writing on paper and there are practicals that you have to write in formal English, in a proper way.

Naledi's comments show the significance of her senior peers helping her to understand the theory and required course writing in English. Sifiso, on the other hand, sought the advice of his cousin, who was also studying at the university. His cousin was able to counsel him by giving him advice on developing an appropriate attitude to his studies. He explained:

I still talk to my cousin a lot, about what he did to me because I had to stress down because of him. So he would just tell me that, "No, don't focus on that stuff, just study. They have stuff, you're also going to buy yourself those things, and so don't worry just be yourself and study. Just because you don't have that stuff [study resources] that does not mean you are dumb or something. You're also going to study and you're going to pass." So that kept me, like, strong. I was motivated.

Sifiso's comments highlight how an older, more experienced student encouraged him to focus on his studies, which mitigated his anxiety about his studies. Pulane struggled to adapt to the department that she studied in and expressed confusion, which she described by explaining that "sometimes you feel like you just don't understand what the lecturer is doing, but you just keep on hanging in there and listening, and because you know it's for your future."

Noluthando experienced the same type of anxiety and decided to approach a more knowledgeable peer in the class for help. She describes the role of this peer, who assisted her with key learning skills:

It was difficult at first, until I met this friend, Zaza, and she will tell me how she's dividing her work in order to make it easy for her to study, because at first I would just take notes and study like studying a magazine. And she would show me how to do mind-maps to make the work easy, and how to study. She would be the highest [good student] and I went to ask her how does she do it?

These examples indicate some of the practices first-generation disadvantaged students become involved in to engage in their learning. Students actively seek peer mentors and collaborating with peers because they are confronted with a university environment that is not accessible to their educational and emotional needs. They experienced what Bourdieu and Wacquant (1992, p. 127) refer to as "feeling the weight of the water" and being acutely aware of their feelings of disconnection in relation to the university environment. They could not "take the world for granted" like their middle-class peers, and had to work out clear strategies to be able to engage in their studies.

These examples show the importance of the affective dimension of the habitus in developing appropriate learning dispositions as students drew on peer support to develop appropriate connections to their learning and course study. It is thus through investing in affective connections with others, via their strategies, to the university field, that they were beginning to align their habitus for productive university learning.

This enabled them to go on to establish effective learning engagement practices, which indicates the conative dimension of habitus in establishing productive learning dispositions. This dimension is especially illustrated by their reliance on “hot knowledge” (Ball & Vincent, 1998) to generate learning engagement practices. *Hot knowledge* is described as “word of mouth knowledge gained from social sources such as family, friends, teachers and others” (Smith, 2011, p. 166). Smith (2011) argues that hot knowledge is useful to enable students to access cold knowledge. Cold knowledge refers to formal knowledge produced by institutions found on official websites, documents, course information and pamphlets. My data show that accessing hot knowledge enabled the students to generate activities such as finding a tutor, forming study groups, accessing older students (mentors) for advice, and asking more knowledgeable peers for academic guidance.

Although they were able to access peer support to assist them with their learning at university, students also had to develop concerted actions to establish routines and discipline to engage in their learning at the university. One example of the development of routines is sticking to their daily traveling schedule, which starts early in the morning and is necessary for them to reach campus in time for their classes. Sifiso explained that he “comes in early, because I get to campus around 8 am or 8:30 am, depending on how the trains are doing.” Most students travel at least 1 to 2 hr to campus by navigating the city’s unstable transport infrastructure.

The selected students had to work hard to develop domestic routines and circumstances to be able to engage in their learning. Those who lived off campus, for example, developed strategies to avoid noisy home environments by studying late at night. Naledi, who lived at the university residence explained that to organize her time effectively, she stayed away from family by avoiding home over weekends. She stressed the importance of studying at night, which she considered a form of punishment. She explains,

Actually, I told myself that I have to punish myself, because I didn’t study during the day. So now, here is the night. So that is the only time that I’m using for studying. And we didn’t have much time. There were a lot of things that we were doing, like regarding this new product development. It was challenging a lot. So we didn’t have a lot of time. So each and every space you have you must use it effectively.

Naledi purposefully decided to study at night and had to figure out how to manage her environment at university. In her case, she had to sacrifice being with her family for periods of time to be able to concentrate on her studies. The ability of the students to organize their time and routines illustrates their capacity to develop appropriate and effective learning habits. These routines assisted them to cultivate the required discipline and learning practices necessary for their university study.

Another significant conative aspect (establishing practices) is their deployment of learning practices around their ubiquitous use of mobile technologies. Students use social media tools such as WhatsApp, podcasts, and YouTube to enhance their learning. WhatsApp is used extensively by them to collaborate with other students particularly for group work. Naledi described how she used WhatsApp: “So there we have a group on WhatsApp, since we had assignments that we had to submit, so we combined—we made a group, and then we’d discuss about our assessment proposal there.” Using WhatsApp, they were able to organize meetings, form group chats, clarify concepts, and post hyperlinks to content explanations and old question papers. The mobile technologies thus enabled them to circulate messages and course content, ask questions for clarification and engage with the content of the courses.

Having been introduced to podcasts by some of lecturers, the students became adept at downloading relevant podcast lectures from the university’s Blackboard platform, as well as the Internet more generally. The students listened to the podcasts in social spaces outside the university and began to employ crucial academic literacy skills to be able to learn. They also began to create their own podcasts for study purposes. This shows their ability to use social media tools to acquire academic skills and to enhance their learning.

YouTube was accessed by students if they wanted a clearer understanding of a process, experiment, or concept. Sifiso explained, “I only use YouTube when I am confused about something in class and then I just want to see if there is another way of doing it.” Musa elaborated on how he used YouTube to augment his lecture:

The lecturer will show you how to move from this stage to another stage. Okay, this is the glucose, now it’s separating to—its glucose, separating to fructose. Because there is a lot of Chemistry involved, that chapter I don’t know; it was difficult to understand. So we had to incorporate YouTube, all the diagrams are there. So now I can see all the steps, all those steps are there and you can see. Now, you just have to make sure that you understand and you take the notes very well and listen to the person who is explaining there. So it was easy and we managed to understand.

Musa’s comment illustrates that he benefitted from the visual and aural presentation on YouTube and that through the medium of ICTs he was able to create learning opportunities outside of the classroom, such as listening actively and taking notes to enhance his cognitive abilities. Students, however, mostly accessed YouTube in the university’s IT center, because of the high cost of the data needed to download a video from their mobile phone or computer.

The use of WhatsApp, podcasts, and YouTube by the students show the significance of enhancing academic practices, such as engaging in discussion, listening actively, and note-taking through ICTs and social media tools. These media literacy practices highlight the crucial role of the “body in practice” and the significance of developing embodied learning practices through the use of ICTs and social media tools (Wacquant, 2014a, p. 9). Students developed academic skills by using mobile technologies, and through the “body as a synthesizing medium of feeling awareness” they were able to hone in on their personal learning styles to develop their academic skills (Wacquant, 2015, p. 3). Mobile technologies and social media tools became an integral part of students’ learning experience.

These digital activities indicate some of the conative strategies students utilized that became embedded in students learning practices, enabling them to engage in learning activities through their mobilization of ICTs while, at the same time, students felt more confident about their learning. This illustrates the formation of students' learning dispositions and the "embodied practical knowledge" generated through the use of mobile technologies and ICTs (Wacquant, 2015, p. 2).

This section focused on the practices that the selected students established which, over time, enabled them to establish a productive set of learning dispositions to optimize their university learning. Highlighting the conative aspect of habitus, it explored the key role of peer-based learning support, the mobilizing of hot knowledge to access course content (cold knowledge), and the role of ICTs as an embedded practices in shaping and positioning their habitus for effective learning engagement at the university.

ACCUMULATING ACADEMIC CAPITAL TO ENGAGE WITH SCIENTIFIC LEARNING

Although the students developed active practices (conative) to learn, an important part of their learning was their ability to acquire the knowledge, expertise, and skills that are crucial for their learning in their science-based courses. Lea and Street (1998, p. 157) suggest that for students to succeed at their university studies they have to undertake "new ways of knowing, new ways of understanding, interpreting, and organising knowledge." One key way in which these students engaged with the scientific discourses of their respective courses was to grapple with understanding the key scientific terms. Musa explained how he grappled to understand the concept *taxonomy*:

I think that word, I started to know about it during my undergrad, *taxonomy*, but I didn't know what's going on. I thought maybe it's a toxic or whatever, but only to find out it's a kind of a family tree of that species whereby it will tell you the family, the genes, the species, the strain, all of those things are under the word *taxonomy*. So I think that's how the microbiologists identify the species based on these characteristics

He explained how he uses his mother tongue during study group sessions to describe scientific concepts and processes:

When you are discussing as a group, Sifiso, Siya and myself, we normally use isiXhosa so that at least it can easily be reminded in your mind during—even if the words that are there can flush away then at least you know that, okay, this process I know it. This is how it goes. So somewhere, somehow, we use isiXhosa, especially when we interact alone' we use isiXhosa to explain stuff for each other.

Sifiso explained that he used playful methods to understand new scientific words.

What I do, and I think it's working out for us, because sometimes we like to make jokes about these words. You will find a strange word and maybe you use it just to call someone and then we say that person is that word. When we see that person, we are just going to use that word. So that word is going to stick in our heads, so it is easy that way.

Adopting a light-hearted attitude towards learning the scientific terms indicates that students were willing and beginning to create a closer affective connection between themselves and the new knowledge they were exposed to see Norodien-Fataar, 2018).

Naledi emphasized the value of learning the scientific terms by explaining that,

You have to admit to that scientific word, especially if you've been told that this is *velocity*. You have to admit that this is the velocity, so there is no other way that you can use another name or whatever. So actually, you must admit that this is that name—you can't just look for the word in isiXhosa because that will be very, very difficult.

Naledi's use of the word *admit* is significant; it indicates her struggle and eventually acceptance of the veracity of scientific concepts as described by English words, and for which there are no precise isiXhosa equivalents. Admitting the scientific word was crucial to her identifying as an Applied Science student, although her use of her mother tongue was a strategy for grappling with, and coming to understand, the concepts. Similarly, Thabisa explained how her study group wrestled to understand the concepts through their use of English and isiXhosa. She explains,

We're discussing, you know, a certain topic, and we go through a paragraph where maybe we don't understand or somebody in the group does not understand, and somebody tries to explain and the person still doesn't understand, they explain it in English but still don't understand, but then the person would try to explain in isiXhosa, so then it would be like, "Oh, okay, now I get it."

These students wrestled with the scientific discourses using both English and their mother tongue as they engaged with their peers. These examples show the capacity of students "to deploy a repertoire of linguistic practices appropriate to each setting, and to handle the social meanings and identities that each evoke" (Lea & Street, 1998, p. 158). They accepted and acknowledged scientific English as part of their newer identity as university students. At the same time, they were able to modify their learning practices as they were constantly moving between using English and their mother tongue to learn new scientific concepts. Coming to understand a scientific term expressed in the English language was thus partly achieved through strategic use of their mother tongue. This exercise of the cognitive dimension of their habitus thus resulted in their acquiring an appropriate student disposition to enable productive participation in their courses.

At the same time, the students were engaged in their learning by focusing on knowing how to write scientific reports. They identified scientific report writing as a central part of their course learning. Thabisa commented on the nature of the reports: "You had to be more specific about the topic, like stick to the topic, don't go like involving such topics, because it's

probably not related to this topic that you're dealing with at the moment." Musa commented that he struggled with the conventions of report writing:

I always had a problem with the report writing. We use international science for referencing, so I always had a problem with that and the scientific way of writing my report. It takes time for me to adjust, because you must have commas, brackets. So it was quite difficult for me to understand but now at least, I have improved a lot.

Becoming competent and skilled at writing scientific reports was a fundamental part of them acquiring the knowledge and skills on the course. It contributed to their grasping of scientific concepts which was fundamental to their embodied learning experiences.

Another key cognitive dimension was the students' ability to adopt individualized strategies to read and understand scientific texts. This was central to their emergent learning practices. Musa developed the strategy of writing and memorizing key words while reading course texts. He explains that he likes

to write, like, make sure that as I read I write all those key words. I prefer to write keywords. Then, okay, maybe I made a spelling error, then I will stretch that word, then write it at the top. I try to memorize the meaning of the words so they stick with me.

Sifiso preferred highlighting key words. He explained that,

I use a highlighter, most of the time. Yes, I just highlight the important words and I use three different highlighters: orange, lemon and pink. So I know that the ones that I highlight in orange, maybe are important and the ones that I highlight, like, it's something that I just have to look for and what is it about. So according to me, it's about that. I read over things, but I highlight it.

Noluthando made extensive mind maps to help her understand the readings. She explained that

Mind maps were very easy to remember the work, because when I use mind maps, I don't rewrite everything. I read, I write the key terms and then once I remember the key terms it would be easy for me to apply everything that I've studied. It will just come out easy.

These individual academic literacy strategies adopted by the students show that each student chose a specific technique rooted in their personal learning strategies. They purposefully applied personal strategies to understand the reading content, which gave them the confidence to develop ways of learning difficult Science content, persevere with their studies, and begin to feel that they belong on their courses of study. Having actively engaged in their studies from the first year, by their senior year of study they felt confident about their ability to perform the academic tasks necessary for achieving success on their course.

Drawing on Wacquant (2015), I suggest that these strategies and tasks are an essential part of the skills needed to endure in the university. The students struggled with understanding scientific concepts, acquired scientific report writing skills, and developed personal learning strategies to study Science as part of the preparation and coaching needed for the students'

intellectual and cognitive development. The students' embodied learning practices illustrate the ways in which they cultivated their learning dispositions, key to which was the use of their home language in tandem with English, to acquire an understanding of Science concepts.

In this section, I focused on the ways in which students learned scientific rules and concepts in their courses. I focused on the cognitive components of their learning by highlighting the importance of understanding scientific concepts, the conventions of scientific report writing and academic literacy strategies as key to improving their knowledge of the course content and development of embodied learning. I show that students developed learning dispositions by creating learning activities (conative dimension) to enhance their cognitive abilities, while at the same time they drew on the affective elements of their learning by using their home language and personal learning strategies to learn. This indicates the emergence of learning dispositions constituted through the exercise of the conative, cognitive and affective dimensions of their learning engagement at the university, which, over time, enabled them to establish productive learning practices on their course study. These embodied practices were key to the formation of their unfolding educational habitus.

CONCLUSION

This article discussed how selected students at one university cultivated their dispositions to learn. Using Wacquant's (2014a, 2014b, 2015) elaboration of the concept of habitus, I discussed the nature of students' learning engagement experiences by focusing on learning as an embodied process that involved interaction among affective, conative, and cognitive dimensions. The argument of the article is that the students' strategic exercise of each of these three interrelated dimensions across time enabled them to acquire the necessary learning habitus for establishing practices for learning.

The structural factors in the university field were the backdrop in terms of which the students developed their engagement with learning. The article highlighted the disjuncture between the students' habitus and the university field upon their entry into the university. This resulted in them experiencing a deep sense of disconnection. To mitigate the hysteresis between field and their habitus, they accessed peer networks for social and educational support as a way of counteracting their feelings of disconnection.

The article demonstrated how students were able to build practices through a series of embodied activities that enabled them to engage with their learning during their programs of study. These embodied practices consisted of forming connections with peers and developing feelings of connection to, and belonging at, the university. These affective qualities contributed to the constructive learning dispositions that students cultivated by developing routines and the discipline to learn. To enhance and deepen their learning, the students turned to ICTs to assist them in acquiring the concepts and skills necessary for learning on their Science courses. Their use of mobile technologies and social media tools in enhancing students' academic skills and generating activities to learn indicates the importance of the embodied aspects of learning in the construction of students learning habitus.

The acquisition of their learning habitus was central in allowing them to concentrate on those core learning practices and activities that facilitated active participation in university study,

which in turn enabled them to adapt, shift, and change their learning practices at the university. These embodied practices illustrate their capacity to accumulate capital to engage in their learning to obtain the social and cultural capital necessary to play the game at the university.

ORCID

Najwa Norodien-Fataar  <http://orcid.org/0000-0001-8286-8089>

REFERENCES

- Ball, S. J., & Vincent, C. (1998). 'I heard it on the grapevine': 'Hot' knowledge and school choice. *British Journal of Sociology of Education*, 27(1), 377–400. doi:10.1080/0142569980190307
- Barnett, R. (2007). *A will to learn. Being a student in the age of uncertainty*. New York: McGraw Hill Education.
- Berger, R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. doi:10.1177/1468794112468475
- Bloomer, M., & Hodkinson, P. (2000). Learning careers: Continuity and change in young people's disposition to learning. *British Educational Research Journal*, 26(5), 583–597. doi:10.1080/01411920020007805
- Bourdieu, P. (1990). *The logic of practice*, R. Nice (trans.). Cambridge: Polity.
- Bourdieu, P. (1998). *Practical reason*. Cambridge: Polity.
- Bourdieu, P., & Wacquant, L. (1992). *An invitation to reflexive sociology*. Cambridge: Polity Press.
- Case, J. (2007). Alienation and engagement: Exploring students' experiences of studying engineering. *Teaching in Higher Education*, 12(1), 119–133. doi:10.1080/13562510601102354
- Hardy, C. (2014). Hysteresis. In M. Grenfell (Ed.), *Pierre Bourdieu key concepts* (2nd ed., pp. 126–145). London and New York: Routledge.
- Kuh, G. D. (2009). What student affairs professionals need to know about student engagement? *Journal of College Student Development*, 50(6), 683–706. doi:10.1353/csd.0.0099
- Lea, M. R., & Street, B. V. (1998). Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, 23(2), 157–172. doi:10.1080/03075079812331380364
- Mann, S. J. (2001). Alternative perspectives on the student experience: alienation and engagement. *Studies in Higher Education*, 26(1), 7–19. doi:10.1080/03075070020030689
- Maton, K. (2014). Habitus. In M. Grenfell (Ed.), *Pierre Bourdieu key concepts* (2nd ed., pp. 48–64). London and New York: Routledge.
- Norodien-Fataar, N. (2018). First generation disadvantaged students' mediation practices in the uneven 'field' of a South African university. In A. Fataar (Ed.), *The educational pathways and practices of South African students across power-marginalised spaces* (pp. 95–109). Stellenbosch University: Sun Media.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). London: Sage.
- Smith, L. (2011). Experiential 'hot' knowledge and its influence on low-SES students capacities to aspire to higher education. *Critical Studies in Education*, 52(2), 164–177. doi:10.1080/17508487.2011.572829
- Strydom, J. F., Basson, N., & Mentz, M. (2010). *Enhancing the quality of teaching and learning: Using student engagement data to establish a culture of evidence*. Pretoria: Council on Higher Education.
- Taylor, S., & Bodgan, R. (1984). *Introduction to qualitative research methods. The search for meaning*. (2nd ed.). New York, NY: Wiley.
- Wacquant, L. (2014a). Homines in Extremis: What fighting scholars teach us about habitus. *Body and Society*, 20(2), 3–17. doi:10.1177/1357034X13501348
- Wacquant, L. (2014b). Putting habitus in its place: A rejoinder to the symposium. *Body & Society*, 20(2), 118–139. doi:10.1177/1357034X14530845
- Wacquant, L. (2015). For a sociology of flesh and blood. *Qualitative Sociology*, 38, 1–11. doi:10.1007/s11133-014-9291-y
- Wimpenny, K., & Savin-Baden, M. (2013). Alienation, agency and authenticity: A synthesis of the literature on student engagement. *Teaching in Higher Education*, 18(3), 311–326. doi:10.1080/13562517.2012.725223