

DESCRIBING THE PAST LEARNING EXPERIENCES OF  
INTERNATIONAL STUDENTS FROM INDIA

by

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## Abstract

Each academic year the number of international students enrolled at a college in Southern Ontario increases with the majority originating from India. Academic challenges experienced by international students travelling abroad to study at post-secondary institutions are well known. The prevalence of academic challenges may be attributed to factors such as the influence of prior learning strategies and cultural differences towards learning between the host institution and country of origin.

As a possible pathway towards achieving the ultimate goal of permanent resident status in Canada, academic failure due to unidentified and unaddressed challenges may result in serious socio-cultural difficulties for students who come from collectivist societies. Currently, there is a lack of published peer-reviewed literature that qualitatively describes past learning experiences of international students from India enrolled in a Canadian college program from the students' perspective.

To address this gap through this project, a descriptive phenomenological approach was used to understand the past learning experiences of first semester international students from India, enrolled in a 2-year college program. Results from the demographic survey and descriptions provided by the participants show that key principles of adult learning may be used to help develop a deeper understanding about past learning experiences. This knowledge is important because it may help students and faculty aggregate different learning experiences by applying principles of adult learning, to pre-emptively mitigate predictable challenges and increase opportunities for academic success.

Key words: phenomenology, adult learning, international student, India, prior learning, higher education, learning challenges

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## 1.0 Introduction

### 1.1 Purpose

Canadian post-secondary education institutions are experiencing a rapid increase in the number of international students from India enrolled in colleges across the country. Specifically, within the last 5 years, a southern Ontario college has experienced a significant increase in the number of international students enrolled (145%) in post-secondary programs. Current estimates now represent over 40% of its campus community, with approximately 90% coming from India (Sharma, 2019). Challenges that include academic culture shock experienced by international students who are studying abroad are well documented (Guo & Guo, 2017; Ninnis, Aitchison & Kalos, 1999; Rao, 2016; Zhou & Zhang, 2014).

Past experience is an important aspect of how adults learn, and this helps to confirm their internal sense of “self” (MacKeracher, 2004). These experiences form the base for new learning and provides adults with a reservoir of experiences that can be applied to new learning contexts (Gu, Schweisfurth, & Day, 2009; MacKeracher, 2004). An insufficient understanding about prior learning experiences may impact facilitators at the classroom and institution levels, potentially affecting the students’ overall learning experiences. For example, MacKeracher (2004) suggests that if we do not understand the past learning experiences of our students, we may assume that our students have certain basic skills when they arrive at the host institution. This assumption, if incorrect, could lead to frustration for students and, leave faculty unable to determine why their student cannot perform the basic skill. Sadly, the student may be perceived as incompetent by their teachers (MacKeracher, 2004). By making attempts to proactively

understand past learning experiences, faculty may be better positioned to use this information to facilitate and support students as they enter a new learning environment.

Ninnes et al. (1999) summarized “substantial variations in teaching and learning from one country to another” (pp. 324-325) that were reported by Burns (1991) in a study involving first-year students enrolled at an Australian university. Although the study did not specify the inclusion of participants from India, findings from other Asian international students may be extrapolated to India in a local context. According to Ninnes et al. (1999), students from India come from backgrounds that are diverse in culture, language, religion, and education. Based on this reality, it may therefore be assumed that within the country itself, each city, town, or village in India, may have a rich and unique academic culture that exhibit variations in teaching and learning (Bailey & Pransky, 2005; Delpit, 1992). Therefore, information specific to the international students’ themselves, collected prior to arrival (i.e., during pre-departure meetings), or during their first semester at the Ontario college, may be beneficial for everyone.

Many Canadian colleges are making great efforts to understand cultural and social experiences of students from India; however, Guo and Guo (2017) identified that “there is little research on international undergraduate students’ experiences from their own perspectives as they adapt to a new educational system in Canada” (p. 851). By exploring the past learning experiences of international students from India, information obtained from this project may be used to help guide education professionals as they facilitate learning in a college setting. Further, this information may also help institutions by using principles of adult learning and past experiences to develop targeted academic supports for their international students. This project has provided me with the opportunity to gain knowledge and a deeper understanding for how international

students from India perceive prior learning from their senior secondary school in their country of origin.

## 1.2 The Research Question

- What do post-secondary education professionals need to know about the learning experiences of international students from India, as they enter a college institution in Ontario?
  - How do International students from India describe their learning experiences from their home country?
  - How can we use this information to assist first-semester international students from India, attending a college in Ontario?

## 1.3 Theoretical Framework

### 1.3.1 Principles of Adult Learning

One of the characteristics of the term “andragogy,” as coined by Knowles (1970), described adult learners as having a “reservoir of experience that becomes a resource for learning” (Merriam & Bierema, 2014, p. 106). The experiential reservoir, as an essential component of how adults learn, may help the student build new experiences or act as a barrier for learning (MacKeracher, 2004). The past knowledge we retain forms the basis of our “self” in terms of how we understand things, our beliefs and values, using our personal stories to identify who we are (Merriam & Bierema, 2014).

Previous experiences help shape the way in which adults will approach and perceive new learning experiences (MacKeracher, 2004), and determine which skills and

strategies may be used in the learning process (Merriam & Bierema, 2014). Past experiences and knowledge may be viewed as something that is built or “constructed” by the learner as they attempt to make sense and understand their experiences (Merriam & Bierema, 2014). Constructivism, as a learning theory describes the ways in which adults actively build knowledge through the organization of mental structures (Ryan & Hellmundt, 2005). Candy (1989) identified that “knowledge cannot be taught, but must be constructed by the learner” (p. 96). Specifically, prior knowledge plays a major role in the construction process of “domain-specific” (Candy, 1989, p. 107) knowledge with respect to problem solving and learning, as adults attempt to create meaning from experiences. In the maturing process, these personal constructs form a “perceptual filter through which they [adults] observe, experience and evaluate events” (Candy, 1989, p. 111). In education, constructivism examines how learners interpret experiences, and how they build meaning (Candy, 1989). Vygotsky (1978, as cited in Merriam & Bierema, 2014) believed that the formation of the constructs is socially driven and incorporates both culture and language. These constructs fit together like the pieces of a jigsaw puzzle and form knowledge that the student considers to be true and accurate. When applied in a new learning context or situation, these constructs that were developed from past experiences, may serve to benefit, or challenge the learner as new constructs are created in their new academic environment (MacKeracher, 2004).

Taylor (1986) described four phases of learning that occur through transitions from one phase to the next (MacKeracher, 2004). Based on self-directed learning, the model shows that adults may enter into a “disorientation” (MacKeracher, 2004, p. 65) phase as a result of an experience that they perceive as different from their past

knowledge, expectations, and/or preconceptions of what they believed to be originally true (Taylor, 1986, as cited in MacKeracher, 2004). This may cause the learner to experience confusion when they are unable to connect a learning concept with their experience (MacKeracher, 2004). Consistent with Taylor's model, Grimshaw (2011) suggests that disorientation "can be experienced by any person who moves between one level of education and another" (p. 708). To move out of the disorientation phase, Taylor (1986) described two events that will allow learners to progress into the exploration phase of the cycle. First, students need to develop and understand the nature of the problem and how it relates to them. Second, by communicating with someone who is considered significant to the learner with respect to the problem itself, these two things can assist students with moving out of the disorientation phase. Apart from learning something new, past experiences will always be an important part of how adults learn, with the learner focusing on modifying, transforming, and reintegrating knowledge (MacKeracher, 2004). McGrath (2009) points to the work of Connolly (1996) who recognized differences with respect to how adults learn by identifying that learning for adults does more than deliver information to students, and the teacher should act as a facilitator in the learning process. McGrath (2009) acknowledged the importance of past experience by describing that adults need to use their experiences in the classroom if they want to learn.

The importance of using past experiences for learning is well documented (Bailey & Pransky, 2005; Candy, 1989; MacKeracher, 2004; Merriam & Bierema, 2014). Unfortunately, Candy (1989) identified that understanding past experiences from the learner's perspective has almost entirely been neglected. Further, while the

importance of using past experiences to facilitate learning in adults is known (MacKeracher, 2004), limited information was identified that attempted to use key principles of adult learning to help explain challenges or understand differences experienced by international students at the host institution. Lindeman (1926, as cited in Candy, 1989) stated “we can progress not by giving attention to either organism or the environment, but to both and in relation to each other” (p. 112). If this is true, then developing an understanding about the past learning experiences of our students may become important for guiding them through the learning cycle. In a new learning environment, students may therefore attempt to build new constructs and/or modify previously existing ones based on their learning experiences, for better functional outcomes (Candy, 1989).

### 1.3.2 Phenomenology

As humans, we have the ability to learn from the experiences of others (Neubauer, Witkop & Varpio, 2019). Phenomenology has been defined as a study of lived experiences of individuals (Neubauer et. al., 2019). Neubauer et al. (2019) reported that learning from the experiences of others is considered essential for scholars, to develop a new understanding about the phenomenon that allows us to learn from those experiences. As a research method, phenomenology seeks to explore how we make sense of common lived experiences when we want to understand a phenomenon from individuals who have directly experienced it (Cranton & Merriam, 2015, Creswell & Poth, 2018). Phenomenology is commonly used as a research method in education (Creswell & Poth, 2018), where the goal of the method is to describe the phenomena from the perspective of the subjects, rather than explain it (Padilla-Diaz, 2015). As

such, development of a hypothesis is commonly excluded from this methodology (Lester, 1999).

Edmund Husserl, a German philosopher from the 20<sup>th</sup> century (Shosha, 2012), who is often referred to as the “father” of phenomenology suggested that for this methodology, preconceptions, judgements, or prejudices towards the phenomena being evaluated should be put aside, for the researcher to be able to objectively analyze the information from participants (Padilla-Diaz, 2015). Husserl referred to this as “bracketing” which describes one difference between Husserlian and Hermeneutic phenomenology, with the later requiring “the researcher to bring their own understandings and experiences to the research process” (Mapp, 2008, p. 309). According to Moustakas (1994), “what appears in consciousness is an absolute reality while what appears to the world is a product of learning” (p. 27).

A descriptive phenomenological method was used to explore the personal learning experiences of international students from India by creating descriptions that resembled how the phenomena was experienced by the participants (Padilla-Diaz, 2015). These descriptions were then used to gain a deeper understanding about the nature of the experience from the viewpoint of the people who have lived it (Moustakas, 1994). Phenomenology as a research methodology for this project will be discussed in more depth in section 3.0.

## 2.0 Literature Review

### 2.1 The College Learning Environment

In the past decade, more and more colleges are promoting an active learning environment (Andrews, Lenard, Colgrove, & Kalinowski, 2011). Chickering and

Gamson (1987, as cited in Braxton, Jones, Hirschy & Hartley, 2008) identify these learning contexts as one of the seven principles of good practice for undergraduate education. Consistent with the constructivist theory of learning, Douglass and Morris (2014) reported that students build their understandings through engaged activities, as compared with “passively accepting information presented to them” (p. 13). In this teaching model, students work on questions or tasks which help them to learn concepts (Andrews, et al., 2011). It therefore makes sense that the smaller class sizes that are frequently found in many colleges relative to universities, make the inclusion of methods that promote active learning possible.

In the college classroom, active learning may involve strategies such as critical dialogical discussions, questions posed to the class from the instructor, active debates, and role playing. These higher-level challenges have all been reported to have a positive impact on student learning (Sorcinelli, 1991 as cited in Braxton, et al., 2008). These active learning strategies may be more effective than traditional lectures that mainly involve direct instruction, (Andrews, et al., 2011). According to Palis & Quiros (2014), a passive approach to teaching does little to utilize a student’s real-life experience and may “lack articulation between new and previous knowledge” (p. 115). Considering this from the students’ perspective, Braxton et al. (2008) identified that the use of active learning positively impacts student perception of their own learning and knowledge. Applying this to Taylor’s (1979) model of learning, a student may experience dissonance if their existing knowledge is challenged (Palis & Quiros, 2014) by an educational practice they perceive as different.

The ability to be a self-directed learner is a desirable characteristic of adult learners in the college and post-secondary environment. The concept of self-directed

learning is well reported throughout the literature (Candy, 1989; MacKeracher, 2004; Taylor, 1987), and has been identified as an approach to learning that has been used in higher education (Bond, 1982, as cited in Taylor, 1987, p. 55). Douglass and Morris (2014) identified that by working to intentionally foster critical thinking and collaboration with students, post-secondary institutions are able to provide support that help develop skills and attitudes required for self-directed learning. Consistent with the constructivist theory, Candy (1989) concluded that self-direction requires the development of active inquiry that is based on independent learning and requires students to develop their own meanings.

Self-directed learning describes how students plan, conduct, and assess their own learning (Palis & Quiros, 2014). For self-directed learning, this is assessed by their ability to complete tasks such as gathering data, organizing information, critical thinking, setting goals and evaluating their learning progress (MacKeracher, 2004). As a learned characteristic, MacKeracher (2004) stated that learners from non-Euro-American cultures may not realize that they have a choice in what and how they choose to learn. MacKeracher (2004) recognized the work of Knowles (1990) who suggested that individuals may develop characteristics to become more self-directed over time through their actions. This includes their ability to resist information that is imposed on them (Kenner & Weinerman, 2011) in the learning environment. In contrast, MacKeracher (2004) identified that some adults cannot and possibly do not perform as self-directed learners. In addition, MacKeracher (2004) recognized that a learner may be considered “self-directed in one context and paralysed in another” (p. 47).

Differences with learning expectations between the home and host institution may pose challenges for international students. In addition, the learning preferences of students themselves may be different as compared to instructional methods used at the host intuitions, creating more challenges for international adult learners. Zhou and Zhang (2014) reported that international students come with educational experiences that may be different from those of domestic students. In their study with business students from India attending an Australian university, Nayak and Venkatraman (2010) showed that academic difficulties experienced by international students may not be originating from their understanding of the English language, but from their lack of ability to understand new and different academic expectations at the host institution. Similarly, Zhou and Zhang (2014) attributed the challenges with English to experiences obtained by international students from high school that may not meet university expectations for first-year students. In this study, students reported that their writing ability was not adequately developed to meet the expectations of Canadian classes (Zhou & Zhang, 2014). This may show that a different interpretation may be possible when compared with the stereotypical perception that Asian international students have a “lack of English proficiency, of specialized writing skills, and of critical thinking ability (Madge, Raghuram, and Noxolo, 2014, as cited in Guo & Guo, 2017, p. 852). Therefore, difficulties with language at the host institution may create additional challenges for international students who arrive from competitive education systems. In their study, Zhou and Zhang (2014) reported that participants felt they were not encouraged, or prepared to actively participate in group work, causing them to feel awkward in a Canadian college learning environment that emphasizes collaborative learning.

Zhou and Zhang (2014) also identified that learning preferences of international students may be different as compared to a learner-centered approach, used at the university. This finding was supported by Edward and Tonkin (1990, as cited in Zhou & Zhang, 2014) who explained that international students may be more accustomed to a learning strategy that emphasized listening, as compared with speaking in class. The authors indicated that an active-learning class, where students communicate with each other and their instructor during the lesson, may appear chaotic to international students. It was identified that students, who have experiences in a highly competitive education system in their country of origin, may perceive the group learning that is common in western classrooms as contradictory with their past experiences, which focused on individual performance (Zhou & Zhang, 2014).

## 2.2 The Indian Education System

India has the second largest education system in the world after China with senior secondary education specifically seen as a qualifying level for higher education (Kukatlapalli, Doyle & Brandyopadhyay, 2020; Umesh & Sivakumar, 2018). Rhines Cheney, Brown Ruzzi & Muralidharan (2015) reported that, “India has more languages than any other country - fifteen main languages and hundreds of other languages and dialects” (p. 2). Hindi is considered the national and primary language for 30% of the population (Kukatlapalli, et al., 2020). Other main languages are Bengali, Urdu, Punjabi, Gujarati, Tamil, and Telegu. English is spoken throughout the country and has been identified as an important language in higher education. The majority of students in India that complete middle-school and continue onto high school, are often from high-level castes, and middle-upper class families, and their families predominantly live in

urban areas (Umesh & Sivakumar, 2018). Students may progress to post-secondary education after completing grade twelve (commonly referred to as twelfth standard). Exams written by students at the end of grade ten (commonly referred to as tenth standard) help determine which stream (science, commerce, or humanities) students pursue in the senior secondary years (eleventh and twelfth standards). Exams written at the end of the twelfth standard determine which post-secondary institution the student will attend (Rhines Cheney et al., 2015).

### 2.3 Previous Learning Experiences and International Students

It has been suggested that international students are highly influenced by previous learning patterns which they relied during the primary and secondary school years (Atkins, 1995; Knowles, 1975; Nayak & Venkatraman, 2010). It has also been reported that “this is consistent with the notion that students have prior learning experiences”, and the “need to understand the relationship in the first instance” (Atkins 1995, as cited in Nayak & Venkatraman 2010, p. 6). Characteristics such as family background, individual attributes (i.e., gender, ethnicity), and pre-college education experiences have been reported to influence a student’s initial level of commitment to the college (Braxton, et.al., 2008).

According to Nayak and Venkatraman (2010), one challenge often experienced by international students is that they often have to “unlearn the academic culture of institutions where they come from, and to learn new academic culture of institutions where they have travelled to study” (p. 2). The concerns with not understanding the importance of past experiences on adult learning identified by MacKeracher (2004) was also recognized by Nayak and Venkatraman (2010). In their study, Nayak and

Venkatraman (2010) indicated that students who “lack the correct understanding of the academic culture” (p. 3) they are learning in, may, “apply their earlier held assumptions, values, beliefs, and approaches that had given them stability, consistency, and meaning” (Schein 2004 as cited in Nayak & Venkatraman, 2010, p. 3). Therefore, these differences between the academic cultures of the home and host institutions may cause the student to adopt learning approaches that may be considered inconsistent with the expectations of their teachers at the host institution (Nayak & Venkatraman, 2010).

Although the value of past experiences for adult learners is well documented in the literature (MacKeracher, 2004; Merriam & Bierema, 2014), Guo and Guo (2017) identified that “there appears to be little research on international undergraduate students’ experiences from their own perspectives, as they adapt to a new educational system in Canada” (p. 851). A similar finding was identified by Guo and Chase (2011) who reported that there has been “a lack of support to help international students successfully integrate into Canadian academic environments” (p. 316). It is important to combine the academic needs of international students with their social and cultural needs. Nayak and Venkatraman (2010) reported similar findings from a study conducted at an Australian university, where it was identified that although instructors focused on strategies to engage international students, other factors such as the amount of influence past academic experience from their home country had, and the degree to which past learning behaviours are ingrained in students, were often ignored.

Academic culture was described by Nayak and Venkatraman (2010) as a “pattern of basic assumptions shared by academics, administrators, and students that has helped them in solving their problems of external adaptation and internal integration in the past”

(p. 2). In a study conducted by Ninnes, Aitchison, and Kalos (1999), common stereotypes associated with the educational experience of undergraduate education in India were evaluated from the students' perspective. Based in Australia, participants for the study included both undergraduate and graduate international students, who were interviewed to determine the nature of the students' previous university experience from India. The study provides some great insight into some of the common stereotypes often associated with the post-secondary education system in India, including the use of rote memorization, a teacher-centred approach to learning, the role of the teacher, the importance of exams, and hesitation towards asking questions in class (Ninnes et al., 1999). The study revealed inconsistencies between the stereotype and what was experienced as described by the participants. With respect to rote memorization, the perception of the students was different as compared to what was described by Zachariah (1993) and Nayak and Venkatraman (2010), who suggested that memorization strategies were used by undergraduate students for learning information prior to the exam and when preparing for tests and assignments. Building on this, Ninnes, et al. (1999) identified one participant from their study who acknowledged that using rote memorization was helpful for certain subjects, such as science, further identified the need to also develop understanding for the curriculum taught. This finding shows that rote memorization may not be the sole strategy used by students for learning. In this case, the teacher was credited as being important for helping students to obtain a balance between memorization and understanding (Ninnes, et al., 1999).

Consistent with Taylor's Learning Cycle, Kenner and Weinerman (2011), showed the importance of understanding the disconnection with learning that can happen

when the previous learning experiences of a student are different with current practices. The authors described a non-traditional college student whose use of rote memorization and repetition was “not conducive to classes where she was expected to use critical thinking skills and arrive at her own conclusions” (p. 89). This study further acknowledges that since integration into the academic environment is challenging for adult students, it is important for educators to understand the background of these learners for the development of curriculum that meets their needs (Kenner & Weinerman, 2011). In doing so, Kenner and Weinerman (2011), conclude that by developing an awareness of the background of adult learners, including their learning styles, we can enhance their integration into the college environment.

With respect to a teacher-centered learning environment, Ninnes, et al. (1999) showed that while some students described that the teacher was important for explaining, clarifying, and understanding concepts, the role of the teacher was also dependent on factors such as the subject itself. Further, a participant in the study explained that asking questions in class was seen as “argumentative” which was viewed as “undesirable” and something that “could have negative impact on students’ result” (p. 332). Other participants in the study discussed the need to be “self-sufficient” since they received little feedback in class, and that teachers were “not particularly important in theoretical subjects” (Ninnes, et al., 1999, p. 331). This may suggest a difference within the literature that describes the teacher as an “all-knowing guide to the literature and arbiter of student opinion” (Ninnes et al., 1999, p. 330). Further, in the same study, while most of the participants reported that the relationship with their teacher was a formal one, they also indicated that the degree of formality was dependent on the age of

the teacher (Ninnes, et al., 1999). Delpit (1992) identified that “if teachers are to teach effectively, recognition of the importance of student perception of teacher is critical” (p. 239). The conflicting views or differences in interpretation identified within the literature, shows that more work may be needed to fully understand the way in which the teacher-student relationship is perceived by the students’ themselves.

Another study was identified that evaluated Asian students’ learning experiences at a university in New Zealand, from the students’ perspective (Campbell & Li, 2008). Although the study included one participant from India, textual descriptions specific to this student could not be identified, and although the findings are consistent with other studies, it cannot be assumed that the findings are also fully representative of the student from India, since many of the findings were reported for the participant population in general. While participants in this study identified changes in their learning that they attributed to developing independent learning skills, participants also acknowledged that they had the most difficulty with writing assignments. This challenge was attributed to difficulties understanding academic procedures from their host institution, and confirming that some came from secondary schools where they “never received any training in Western academic conventions” (p. 382). Further, Campbell and Li (2008) identified that students described having difficulties understanding the language of the dominant academic culture and reported that this may be due to the accent of the lecturer, which was viewed as a learning challenge.

Similar findings were also reported by Zhou and Zhang (2014), who evaluated challenges and experiences of first year international students, enrolled at a Canadian university, from the students’ perspective. Although set in a different learning

environment, this study revealed that a student's first year experience had a strong impact on their perseverance in post-secondary education (Zhou & Zhang, 2014). While experiences described by students from India were limited, I believe that the findings from Zhou and Zhang (2014) may still be relevant for the demographically changing nature of higher education institutions in Canada. Zhou and Zhang (2014) reported that students had difficulties adjusting to a new education environment which they perceived was different from what they were previously use to. For example, one student described that there is an emphasis on knowledge application in Canadian universities, as compared to their education back home that placed greater value on theoretical knowledge (Zhou & Zhang, 2014). Further, students also reported that education at the university focused on the whole learning process, as compared with their home country where the most important evaluation was often the final exam (Zhou & Zhang, 2014). This result was supported by a participant from India who described his experience at the host university which involved studying from the first day of the semester, which he compared with his experiences back home, where he was only required to study to pass exams (Zhou & Zhang, 2014). The importance of exams was also reported by students who described that while exams play an important role in the undergraduate education in India, assignments were not valued as high, if at all incorporated into courses (Ninnes et al., 1999).

English language proficiency was explored by Kukatlapalli, Doyle and Bandyopadhyay (2020) in a recent study of international students from India (doctorates, masters, postgraduate diploma and undergraduate) attending various universities in Australia. The study explored past experiences with education in India with a focus on

language through the use of a survey and interviews. Language proficiency was identified as a “prominent concern in international education research” (p. 485) and “until recently there has been little research on students from India and no studies focusing on these students’ English language proficiency” (pp. 485-486). In this study (Kukatlapalli, Doyle, & Bandyopadhyay, 2020), the use of English as the medium of instruction (MOI) was reported by 87% of participants with 13% indicating they were educated in another language. The study did not specify how English was used, for example as the MOI for lectures, in-class discussions, assignments, and/or exams. English was reported as the most commonly used language by participants for communicating with friends. Further, participants in this study reported that English was never or rarely used for communicating with family members at home. When asked to rate their English language proficiency, 96% of participants indicated they perceived their proficiency as good or excellent. Based on this, the authors concluded that past experiences with English contributed to an easier transition to a new academic learning environment where participants did not struggle with understanding or participating in lectures. Challenges identified were reported to be related more with “the complexity of learning new writing genres and concepts” (p. 495) was considered difficult for participants. This study clearly demonstrates and supports the importance of understanding past learning experiences of international students and shows the importance of using this knowledge to facilitate the student’s transition to a new academic learning environment.

Guo and Guo (2017) evaluated the experiences of international students from a university in Western Canada. While there was no participant from India, the authors

discuss the importance of including and understanding the “student voice” (p. 865). They report that the students’ voice is important for policymakers and educators to understand their lived experiences at Canadian Universities. They further identify the value of including the students’ voice as a way to “challenge the deficit-centred perspective of Western narratives of international students” (pp. 851-852). Student empowerment has been defined as a “process by which students gain the power needed to meet their individual needs and work with other to achieve collective goals” (Kirk, Lewis, Brown, Karibo, Scott & Park, 2017, p. 829). This process of achieving empowerment for students is dependent on the individual and context (Kirk, et al., 2017). Factors identified by Kirk et al. (2017) such as student voice, staff empowerment, and teacher-student roles are important for contributing to student empowerment. Burrell Storms (2012) connected the concept of student voice with lived experiences and said that “voice is grounded in students’ lived experiences and provides them with the opportunity to connect abstract concepts with real life” (p. 553). The importance of culture and societal pressures on education was frequently reported in the literature. Delpit (1996, as cited in Bailey & Pransky, 2005) linked “pedagogies to dominant cultural norms and argued that this type of mismatch is pervasive whenever dominant culture educational institutions teach children from non-dominant communities” (p. 19). Further, Bailey and Pransky (2005) reported that there is “a wide body of research that conceptualizes learning as a profoundly cultural process” (p. 20). Bailey and Pransky (2005) recognized the role of culture in learning in the work of Freire (1970) who identified that learning and culture within a specific context cannot be separated. Specifically, Freire described a banking pedagogical model that explains how, in many formal educational settings, students are expected to receive knowledge, memorize it,

and recite it back (Freire, 1993). For students who experience the banking model, they may not be exposed to other forms of learning that would include critical thinking skills such as analysis and synthesis, which are commonly used at a western post-secondary institution. Since learning and culture cannot be separated within a context, instructors need to remember that the lack of exposure to other forms of learning creates challenges for students who transition to a new learning context following a different pedagogical approach. The banking approach for secondary education in India is consistent with the views of Bailey and Pransky (2005) who said that “diverse cultures have different views on the nature of knowledge and authority and different perspectives on the culturally appropriate ways for children to interact with adults and others in order to learn” (p. 21).

Similarly, although Delpit (1992) discusses children in her research, I believe her findings can be applied to adult learners. For example, Delpit (1992) suggests that “when a significant difference exists between the students’ culture and the school’s culture, teachers can easily misread students’ aptitudes, intent, or abilities as a result of the differences in styles of language use and interactional patterns” (p. 238). However, Louie (2005) addressed the complexity of using the term “culture” and expressed that “when it comes to us gathering different aspects of the culture of the international students, it is even more important to be clear exactly which parts of the culture we are targeting” (p. 19). Delpit (1992) connects culture with past experiences in identifying that teachers “cannot appreciate the potential of those who sit before them, nor can they begin to link their students’ histories and worlds to the subject matter they present in the classroom” (p. 248). This shows that the academic culture and educational practices

lived by international students' back home may be important in the development of understanding their past learning experiences.

Two recent publications were identified that evaluated experiences of international students; however, different student populations were evaluated in the United States post-secondary education system (Palmer, Zuraikat, West, Calderone & Shanty, 2019; Urban, Orbe, Tavares & Alvarez, 2010). Both of these studies explored other important aspects experienced by international students that were determined to be outside the scope of this project (*i.e.*, non-academic cultural differences, expectations of the US education system, and intergroup relations). While both articles made reference to specific learning challenges such as communication and language that were experienced by the participants, the past learning experiences of the participants was not discussed. In another study, Harvey, Robinson, & Welch (2017) investigated the lived experiences of international nursing students enrolled at an Australian university and included two participants from India. Although the study did not evaluate past learning experiences, Harvey et al. (2017) identified learning challenges experienced by international students at the host institution and included "learning in a foreign university context, learning while developing English language proficiency, and academic writing including becoming familiar with academic disciplinary discourse" (p. 3). One recent study was identified that was situated at Niagara College, Ontario (MacGregor & Folinazzo, 2017). Although international students from India were represented in the participant population, results from this study were generalized to the international student participants as a whole, and were not reported by demographic population. It therefore cannot be assumed that findings reported by MacGregor and

Folinazzo (2017) would specifically be representative of international students from India. In addition, the study by MacGregor and Folinazzo (2017) did not investigate academic challenges from the student's perspective.

In conclusion, although a small amount of literature was identified describing the past learning experiences of international students from India, I believe the literature considered can be used to support the need for a project of this type. The literature may reveal inconsistencies in the way we understand past learning experiences when used for understanding a homogeneous student population. This gives little consideration to the perspective of each learner. International students from India may have limited knowledge about Western educational practices and expectations (Campbell & Li, 2008); however, this may only be revealed to the facilitator through communication about previous learning and lived experiences. Teacher-directed as compared with self-directed learning may or may not be a choice made by the student within their home education system and may be dependent on the subject studied (Ninnes, et al., 1999). Finally, I believe an important finding from the literature speaks to the idea of "student voice" published by Guo and Guo (2017), who identified an incredible value in understanding and acknowledging experiences from the students' perspective, and giving credit to the students' voice. To empower students to learn, we need to give them a voice that allows them to be responsible for their own learning. According to Storm (2012), since voice is grounded in lived experiences, listening to students about their past learning experiences may be considered critical for us to empower and motivate them to learn in a new context.

### 3.0 Methodology

#### 3.1 Ethics

This project was completed as part of my master's program for the University of New Brunswick (UNB) and followed UNB approved ethical procedures for a study that involved data collection from human participants. Since data was collected at a college located in southern Ontario and not at UNB, ethics approval was received from the Research Ethics Board (REB) at the college prior to the start of the study. Throughout the project consideration for the participants' values, thoughts, and feelings were continuously given top priority. Ethical oversight of this project was important because it helped to ensure that anything viewed or discussed with the participants during the course of this project was done so with the best interests of the participants in mind. Through the ethical review, I quickly realized that a simple question asked may unintentionally trigger an emotional response that may cause distress to my participants. This realization allowed me to inform participants about support that was available at the college if required. The well-being of participants was constantly considered in designing this project. Prior to the start of the project, students were informed verbally and in writing that participation in the survey and/or focus groups was voluntary; no participants elected to withdraw from the project. Anonymity of the participants was protected as much as possible through the use of pseudonyms in this report. Students in the focus group were friends from the same course section and reassured me that they were comfortable and wanted to participate together in the focus group. Participants were given an option to decline answering any survey questions without repercussions by selecting the "prefer not to answer" option that was included for most questions.

Participants could decide to skip questions that did not contain this option. No incentives were provided to students for their participation in the survey. Snacks were provided for students who participated in the focus group and one-on-one interview. I considered this a kind gesture that showed my respect and appreciation for the fact that students were giving up some of their free time after class to participate in this project. All of the information relating to this project, including the data that was collected, is stored on my personal laptop, passcode protected, in a secure location. The data from this project will be kept for 7-years and will be destroyed after at the end of the retention period.

### 3.2 Study Methodology

Descriptive phenomenology was the interpretive paradigm that was used to explore and understand the past learning experiences of international students from India (Cranton & Merriam, 2015, Palmer et al., 2019). In keeping with the phenomenological approach and principles of adult learning, the majority of data for this project was collected during the first three weeks of the winter 2020 semester (January 6<sup>th</sup>-24<sup>th</sup> inclusive), with the exception of one interview, that occurred in week 7 of the winter 2020 semester. Collecting data for this project at the start of the semester was important to minimize the influence of the host environment. Zhou and Zhang (2014) noted that there are few studies that focus on first year international students within the literature, and that international students have pre-entrance characteristics that are more complex, because of differences in their past education experiences, cultural influences, and language. Therefore, attempting to build on this knowledge, international students from India who were enrolled in a first semester course in the Applied Programming Program,

were invited to participate in this project. The Applied Computing program was selected to survey because the program had a large intake of international students from India in the winter 2020 semester.

The timing of this project was important because it may have provided an opportunity to minimize the cultural influence of a new academic learning environment. Vygotsky's sociocultural theory suggests that learning is rooted in both society and culture, where social interaction plays an important role in the development of cognition through interactions with individuals (Merriam & Bierema, 2014). In addition, Carrol (2005) explains that "many students may not be sufficiently aware of their own previous learning experiences to provide useful insights" (p. 27) which I believe may be exacerbated if the student is experiencing dissonance when attempting to build new constructs. Based on the literature reviewed, the timing of this project may have allowed participants the opportunity to clearly describe their past learning experiences, before their perceptions may be altered by experience within a new learning environment.

In the first part of this project, students enrolled in pre-selected sections (see Table I) of the Applied Computing program at the host institution were invited to participate in a short demographic survey that was offered on the Survey Monkey online platform. The survey consisted of 16 multiple choice questions and 2 questions that require a 1-word answer or date. Data from the survey is presented in Table II, Table III, and Table IV. Prior to providing students access to the survey, a class visit was completed in week 1 of the winter 2020 semester. The class visit provided students with a verbal overview about the project and answered any questions they had. At the end of the visit students were provided with two information sheets that invited them to

participate in the survey and focus groups. Students were able to decide whether to participate in the survey or focus group, participate in both phases of this project, or to not participate in the project altogether. The informed consent to participate in the survey was the first question that appeared on the survey itself. The survey was opened and accessible to students from week 1 until the end of week 3 (January 26<sup>th</sup>, 2020, 12:00 midnight). Students were able to complete the survey on their own time within the first three weeks of the semester.

Recognizing that some students may not be able to attend their class in week 1, information provided during the class visits (including information sheets for both the survey and focus groups) was also emailed to the students using their college email address after the class visits. This included students enrolled in a section of the course that did not receive a class visit. Subsequent email reminders were sent to students in the selected sections in weeks 2 and 3 to remind them about the project. All of the electronic communication sent to students was reviewed and approved by the Research Ethics Boards from both institutions.

In the second part of this project, a focus group and one-on-one interview was used to understand and explore in greater detail, the lived experiences of international students from their highest level of education, (*i.e.*, senior secondary or post-secondary) from India. According to the literature, focus groups are a common method used to obtain qualitative data in phenomenology studies for cases where students come from diverse cultural, and educational backgrounds, because it allows for differences in experiences to be observed (Ninnes et al., 1999). For this project, the focus group method was preferred to allow students to feel comfortable within a group of culturally similar peers. Purposive sampling (Padilla-Diaz, 2015) was used to select participants

for the focus groups. Two focus groups with three students each were initially formed from a total of 6 students who volunteered to participate. Structure of the focus groups were based on the highest level of past education reported by the participants and aimed to include a mix of students from both urban and rural cities.

Unfortunately, 2 participants withdrew from the second focus group prior to the session due to preparing for exams and due to a lack of interest. As a result, one focus group was conducted as originally planned in week 5 and the second focus group that had one remaining participant was changed to a one-on-one interview, that was conducted in week 7. The interview was arranged based on a request from the participant confirming a preference to participate in an interview instead of joining the first focus group. The focus group and interview discussions followed a same semi-structured approach (see Appendix A) and lasted approximately 140 and 120 minutes in length respectively. For the focus group, this time is approximately ten minutes over the initially planned time of 120 minutes and was necessary to avoid interrupting the participants towards the end of the discussion. This provided the participants with the extra time they needed to finish sharing their experiences.

Prior to the start of each session, participants signed an informed consent form, a confidentiality form, and a form requesting permission to audio record the sessions. Participants selected a pseudonym that was used to maintain anonymity in this report.

### 3.3 Selection of Participants

For the demographic survey, one first-year course that was offered in the first semester of the Applied Computing program was selected. The course had a total of twelve sections at the start of the winter 2020 semester. Four sections (represented as

section 1, 2, 3, and 4) were purposefully selected based on the number on international students enrolled at the start of the semester. Table I shows the enrollment data as of January 6<sup>th</sup>, 2020, at the start of the study. A total of 108 students were invited to participate in the survey, and a total of sixteen participants completed the survey. The low number of participants who volunteered to complete the survey was expected since the use of class time to complete the survey was not permitted.

Table I

*Table Showing Student Enrollment of Students in the Four Selected Sections*

Section Number	No. Domestic Students	No. International Students	Total No. Students Enrolled
1	2	26	28
2	5	23	28
3	5	23	28
4	5	19	24

In the second part of the project, students enrolled in the same course sections were invited to participate in a focus group. Purposive sampling, a selection technique that is commonly used for trying to identify, and select individuals who have experienced the phenomenon being evaluated (Mapp, 2008), was used to select students for the focus groups based on the three criterium listed below:

1. For the first three weeks of the winter 2020 semester students were International students from India, who have a study permit. Permanent Indian residents,

landed Indian immigrants, and Indo-Canadian citizens were excluded from the selection of participants for the focus groups.

2. The highest level of education completed in India was twelfth standard. Students who have completed or taken undergraduate post-secondary education in India may also be selected. Students with experience at the graduate-level (Masters, PhD) were excluded from the selection of participants for the focus groups.
3. Focus groups were structured attempting to represent a mix of gender identities and both urban and rural past education experiences within the group.

In December 2019, section instructors were contacted using the college email system to schedule a class visit for the second week of January (semester week 1). Class visits were conducted in three out of four sections. Each class visit took approximately ten minutes and instructors were very helpful and supportive with assisting to hand out information sheets for the project. After the class visits were completed, students enrolled in each of the course sections listed in Table I, including the section that did not receive a class visit, were sent a follow up email that provided them with the same information that was discussed with the class, including the information/consent to participate in the focus groups. Participants in the focus group and interview identified that their highest level of education prior to arriving in Canada was senior secondary class 12/ 12<sup>th</sup> standard (i.e., grade 12). Participants for the focus group and interview were from Chandigarh, Dabhoi, Amritsar, and Faridkot. Most were from cities the state of Punjab, one was from the Gujarat state, all located in northern India (see Table II).

### 3.4 Data Analysis Approaches

Data collected from the focus group and interview was analyzed following Colaizzi's (1978) method of qualitative data analysis (as cited by Palmer, et al., 2019). Colaizzi (1978) proposed a seven-step process for analyzing data from phenomenology studies that ends in a description of the phenomena being evaluated (Morrow, Rodriguez, & King, 2015). Padilla-Diaz (2015) identified that phenomenological analysis requires both the description and analysis of what participants say, to be able to interpret the context (p. 105). Based on this, terminology for textural and structural descriptions reported by Creswell and Poth (2018) was used. Data analysis was completed following a method outlined by Creswell and Poth (2018). Creswell and Poth (2018) consider their method to be a simpler version of the method originally described by Moustakas (1994). The analysis method originally described by Creswell (2013) and Creswell and Poth (2018) is commonly used in phenomenology qualitative research. A similar method to the one developed by Creswell (2013) was used by Padilla-Dias (2015) for the analysis of data from a study that provided an in depth look at phenomenology.

The following method for data analysis was followed:

1. The demographic data obtained from the survey was sorted, tabulated, and reported in Tables 2, 3 and 4.
2. Recordings from the participants in the focus groups were transcribed verbatim, using pseudonyms selected by the participants, and read/reviewed for understanding and accuracy.
3. Important statements directly pertaining to the phenomena were separated out from the main transcripts and were considered equally important for describing the phenomena from the perspective of the participants. These statements

referred to as textual descriptions were used to identify how the participants commonly experienced the phenomenon of learning in their senior secondary school in India (Creswell & Poth, 2018).

4. The selected statements were grouped into categories that represented common themes that emerged from the transcripts. The themes were then grouped into larger categories. Four main categories and a total of six themes were developed from the descriptions provided by the participants.
5. Structural descriptions were prepared that described statements expressed by participants, explored the intended meaning of the statements, and finally were used to develop a feel for the essence of what the participants were described (Padilla-Dias, 2015). For the structural descriptions, major trends observed within the participant's statements, and the minority view were also incorporated, and were used to help understand the phenomena of the students' lived experiences in senior secondary learning in India.

Due to the scope and limited number of participants in this project, data saturation was not achieved. A final validation step, to confirm accuracy of the transcripts is the final step of Colaizzi's method that requests participants to compare the textual descriptions with their experiences (Palmer et al., 2019; Shosha, 2012). For this project, a final validation step was not completed due to the duration of the semester (14-weeks) which was unexpectedly shortened due to the onset of COVID-19, and understanding that some international students may have decide to return to India as a result of the college closure in March. Participants were informed at the start of the focus group/interview sessions that they could request to view a copy of the transcripts at anytime. No communication was received from participants requesting to review the session transcripts.

In my project, I have attempted to respond to an identified gap in the literature, by providing valuable information about past learning experiences from the student's perspective. Despite limitations, the information obtained from this project is not be available from another source and may be used to help facilitate and understand learning at the host institution.

### 3.5 Conflict of Interest Statement

While I was employed as part-time faculty and a field practicum coordinator at the institution where the project will be complete, I acknowledge that for the duration of this project, I did not know the students, or have any influence over their academic standing in the course that was selected for this project.

## 4.0 Data Presentation and Analysis

### 4.1 Introduction

This project, has provided me with new knowledge about the past learning experiences of international students from India, that I believe may be used to help faculty facilitate student learning in a post-secondary college setting. A survey was incorporated into this project because it allowed for the collection of initial data about the student population that showed varying demographics (i.e., city of origin) and language experiences. Since Kukatlapalli et al. (2020) identified that India has different social, cultural and linguistic backgrounds, a focus group was used because it provided a good way to collect the necessary qualitative data from the participants from this diverse background (Ninnes et al., 1999). Results from the survey that are presented in Table II, Table III and Table IV revealed interesting findings when evaluated with the six themes

described in section 4.3 and analyzed together to understand the essence of the phenomenon in section 4.4.

## 4.2 Demographic Survey

A total of sixteen students completed the survey; twelve participants identified as male, one participant identified as female, and four participants skipped the question. Table II shows that 60% of participants were from Urban cities as compared with approximately 27% that were from rural towns (see Table II). All of the participants were from different cities, towns, or villages in northern India, mainly from the Punjab and Gujarat States (Table III). Based on this demographic data, it cannot be assumed that all international students from India originate only from large urban cities, and a representation of students from small villages, towns and larger urban cities is possible for any cohort. According to Kukatlapalli et al. (2020) students from India should not be considered a homogeneous group since they originate from diverse “fields of study and experiences” (p. 486) that includes different social, cultural, and linguistic backgrounds. The data in Table III supports this finding by demonstrating that each participant is from a different city in northern India. While the majority of participants indicated their highest level of education was senior secondary, one participant identified having post-secondary education experience and had attended another post-secondary institution prior to starting at the Ontario college.

Table IV shows that while the majority of participants identified that English was used to complete written course work, lectures may have been taught in both English and Hindi, with English being the primary language used for lectures (63%). This finding is consistent with Kukatlapalli et al. (2020) who reported variances in the

medium of instruction (MOI) between schools and explained that English as the MOI may also be “taught as a second language, another language, or as a foreign language” (p. 486). Further, in public or poorly funded private schools, the MOI was Hindi or another regional language (Kukatlapalli et al., 2020) and is consistent with the 25% of schools reporting English as their MOI in the 2002 Seventh All India Survey (Meganathan, 2011). In this study the MOI did not identify how English was used for example, during lecture delivery, in-class communications, assignments, or exams.

For communicating with family, participants indicated that Hindi (31%) or another national language (68%) was used; English was not identified as being used as the choice language for communication with family. This is consistent with findings reported by Kukatlapalli et al. (2020). For communicating with friends, English was the third most popular language used. Surprisingly, Hindi was not identified as the most common language used by participants for communication with their friends; participants identified that other languages commonly used in northern India were used the most. The majority of participants indicated that in class discussions were conducted in Hindi (68%). The majority of respondents indicated that classroom discussions may not have occurred in English. All of the participants indicated that written course work was completed in English (100%).

Table II

*Table Showing Demographics of Project Participants*

Survey Questions	Participant Responses (%)	Participant Responses (%)	Question skipped or IDK (%)
To which gender identify do you most identify?	12(71) Male	1(6) Female	4(23)
What country are you from?	16(94) India	-	1(6)
On what month and year did you arrive in Canada?	15(88) December 2019	-	2(12)
Please tell me the name of the village, town, or city where you live in India	6(38) Punjab State	4(20) Gujarat State	-
Would your village, town, or city in India be considered rural (i.e., a small village) or urban (i.e., a large city)	9(53) Urban	4(24) Rural	4(23) unknown )
What is the highest level of education you completed, prior to starting the Applied Computing program at the Ontario college?	14(82) Secondary	1(6) Post Secondary	2(12)
As of the date of this survey, which of the following statements most accurately describes your legal status in Canada?	15(88) study permit	-	2(12)
Have you ever attended another college and/or university in Canada, prior to attending the Ontario college?	14(82) No	1(6) Yes	2(12)

*Note:* there was a total of 17 respondents, 16 completed the survey and one student decided not to participate

Legend: IDK = I don't know

Table III

*Table Showing Participants City of Origin in India*

Participant Responses	City/Town/Village	State	Location in India
Ahmedabad	city	Gujarat	North India
Dabhoi	town	Gujarat	North India
Patan	town	Gujarat	North India
Surat	city	Gujarat	North India
Chandigarh	city	Haryana and Punjab	North India
Karnal	town	Haryana	North India
Sihol	village	Haryana	North India
Aurangabad	city	Maharashtra	North India
New Delhi	city	New Delhi	North India
Amritsar	city	Punjab	North India
Faridkot	city	Punjab	North India
Jalandhar	town	Punjab	North India
Kartarpur	city	Punjab	North India
Kotha Guru	village	Punjab	North India
Massanian	village	Punjab	North India
Kolkata	city	West Bengal	North India

Table IV

*Table Showing Participants Language Experiences and Preferences*

Survey Questions	English (%)	Hindi (%)	Other (O: %) Skipped (S: #)
At your senior secondary or post-secondary school in India, what language was used most often by your teachers during lectures and lessons?	63	19	S: 1
At your senior secondary or post-secondary school in India, what language was used most often for talking to your friends?	25	38	O: 38 S: 1
In India, what language did you use the most to talk to your family?	0	31	O: 69 S:1
At your senior secondary or post-secondary school in India, what language was used the most to complete written course work? (i.e., assignments, quizzes, tests, and exams)	100	0	S:1
The language used to complete written course work was determined by	100% teacher	-	S:1
At your senior secondary or post-secondary school in India, what language was used the most for in class discussions?	13	69	O: 19 S:1
In India, what language did you use the most for texting friends?	38	19	O: 44 S:1
Since arriving in Canada, what language do you use the most when speaking with your friends?	44	6	O: 50 S:1
Since arriving in Canada, what language do you use the most for texting?	81	0	O: 19 S:1

Note: Other commonly used languages used by students in various situations include Gujarati, Punjabi, and a mix of two to three languages including English, Hindi, and Punjabi.

Data from the demographic survey may be used to begin to understand the student population who volunteered to participate in this project, and provide insight into learning trends that may be common in senior secondary school education in India. For example, data from the survey shows that participants originated from north India (Table III). This knowledge allows for a more specific essence of the phenomenon to be developed that reflects the senior secondary school experiences of participants from north India, as compared with generalizing to India as a whole. Burns (1991) recognized different ethnic culture that were represented in a study population that originated from Malaysia. Burns (1991) identified that although there were some common concerns identified within the participant population, additional research for its impact on “subgroups is needed” (p. 62). Therefore, knowing the specific demographic region international students originate from may provide essential information that helps with understanding the education practices within that region, as experienced by the student.

In the second part of this project, a focus group and interview were used to obtain a more in-depth knowledge about the participants past learning experiences from India. Information used ad verbatim formed the common textual descriptions that revealed themes that describe the phenomenon from the participants’ perspective.

#### 4.3 Thematic Identification

Textual descriptions provided by participants were used to identify common themes that describe how participants learned in their secondary school in India. Grouping the six themes that emerged from the descriptions into four main categories showed a connection that may exist between and within main groups of themes. In the

first part of this section, the importance of the main category is described and textual descriptions that were used to identify themes relating to the main category are discussed. In the last section (section 4.4), findings from the survey and themes are explored through the lens of adult learning to help understand and possibly explain the phenomenon.

#### 4.3.1 Learning Environment

The environment in which learning occurs may contribute to the success and challenges experienced by the learner. Physical resources such as furniture and air quality may impact learning (MacKeracher, 2004). MacKeracher (2004) identifies that furniture such as chairs and tables in addition to the arrangement of the room itself may create a space that is ineffective for learning. Poor air quality that directly impacts the health of students may also indirectly affect learning (MacKeracher, 2004).

Mackeracher (2004) further states that culture and social expectations “control and direct how people relate” (p.192) and this may be important for understanding facilitating strategies which are often based on cultural values. Descriptions that were provided by participants that related to the learning environment at their senior secondary schools in India were considered a common theme within the learning environment category.

Information pertaining to the physical environment was used to formulate a structural description that described the setting and context (Creswell & Poth, 2018) of secondary school learning in north India. Participants in this study attended schools that were in different cities in north India. Common features of the learning environment that was described by the participants are discussed in theme 1.

**Theme 1 Learning Environment:** In the senior secondary years, long school days that started early in the morning were considered common and learning occurred in teacher-centered, traditional classrooms that contained limited technology. In the senior secondary years, learning occurred throughout the day, often starting early in the morning and ended late at night, with school and coaching (i.e., tutoring) occupying approximately the same amount of time in the day. Participants described a typical school day that involved waking up very early in the morning, attending coaching (similar to academic tutoring classes/sessions in a western context), followed by regular school classes. Although an early start to the day was a commonality amongst the participants, each one had a different reason to explain their required start time. Whether the early start was due to additional tasks that had to be completed before leaving home for the day as described by Malhi “so my day use to start at four, I use to get up, I have to tie turban so it takes a lot of time”, or to accommodate travel time to school that was described by Ash “I have to travel thirty kilometers for the school....I have taken maths and bio both, so I have to reach at six a.m. in the morning at school to attend the bio lecture”, participants clearly described the need for an early, often four o’clock in the morning start to their day.

In school, participants had a fixed timetable with nine periods divided between four or five subjects, in both the eleventh and twelfth standards. The structure of the school day described by the participants was consistent with the nine-period day described by Rhines Cheney, et al. (2005), with each period lasting approximately 40 minutes in length. The majority of participants indicated that they selected the science stream at the end of the tenth standard, consistent with the literature that describes the science stream as being the most prestigious stream in the Indian education system

(Rhines Cheney, et al., 2005); one participant confirmed selecting the science stream in the eleventh standard. Stream selection was determined by marks achieved on the tenth standard final exams. Within each stream, participants completed mandatory courses and may have had one elective course such as physical education. A fifteen-minute lunch break after was provided after three or four classes, although the timing of the break and duration was determined by the school. Zeesha described a typical afternoon that illustrates the continuation of learning after the school day has ended:

And after that when you are done with the break time, you will be coming back to the class, you will be like taking the rest of the classes, and that's the end of the usual day, but the things come after that. If you are in class eleventh [or] twelfth, you will have to go to the coaching centres. So, there are two different kinds of coaching. So, if a student wants to do well in both they will be taking five [and] five, two coachings and five hours per coaching minimum. It's like ten hours of coaching after school.

From my discussions with the participants, it was clear that the quantity of time each one spent in coaching classes was approximately equivalent, and in the case of Zeesha sometimes more, as compared to with a regular school day. Following the evening coaching session which often ended between seven and nine o'clock at night, participants would head home to complete any homework or studying that needed to be done for the next school day.

Looking at the physical learning environment, a teacher-centered physical classroom design was most frequently used that was often not able to support visual or digital learning. Participants described what appeared to be a teacher-centered

classroom layout, with desks and chairs lined up in rows that may also be used to promote discipline and allow the teacher to easily monitor students. Malihi, Ash, and Zeesha explain:

Malhi: Individual desks sort of, but we have rows

Ash: Rows

Zeesha: Proper rows....

Malhi: Because [the] teacher can.... move between the rows and have a check on each and every student. He said that we [are not] allowed to use mobile phones so they even check that if someone is using a cell phone or some sort of device”

....

Raj: Recently when I just passed out in the last year of my school, we had in built air conditioning as well.

Features such as air-conditioning that are common in most schools in Ontario may not be available in all secondary schools in India, and this may be dependent on location and funding available to the school. Through the development of an initiative called Rashtriya Madhyamikk Shiksha Abhiyan (RMSA) that was established in 2009, an objective to establish universal secondary education by 2020 was initiated and included interventions such as creation of the infrastructure to support “encompassing classrooms, housing for teachers, toilets (separate for boys and girls), and drinking water facilities within schools, science laboratories and libraries” (Umesh and Sivakumar, 2018, p. 204). Participants described a difference with respect to digital (E-learning) capabilities that were available and used in their senior secondary school classrooms. While Raj described a general trend towards digital learning in India, there also appears

to be challenges with infrastructure that may prevent and limit the use of digital technology in classrooms:

The teacher taught on the white board, here we have something digital, everything is more digital over here. India is also progressing towards it, but to change the previous infrastructure it takes a lot, like so they have built the classrooms so that are not for example that are not compatible to visual learning so they need to change all the screens they need to put printers into each classroom and then add sound. So, they are developing, the new schools are made to that standard, but the schools built from last time, from the previous time they are not compatible to it.

Use of the white boards by teachers was a common classroom feature described by the participants. Zeesha described the use of projectors and software such as PowerPoint that was also used by teachers to facilitate learning, in addition to the use of a white board. Malhi described a similar experience:

Its relative to Zeesha because we have a projector and slides played on that but teacher also use to write on the white board and give us notes and we have to copy everything, even if that is on the white board that's playing on the projector.

According to MacKeracher (2004), when taking notes is combined with the use of technology, a divide in the learner's attention might occur unless an outline is provided for use during the lecture or notes thereafter. I believe this shows that while the incorporation of technology may be beneficial, it could also hinder learning if the pre-existing learning methods have not changed to incorporate its use. Although digital

learning technology may be available and used in some schools in India, participants explained that it may not be available in all schools, and traditional methodologies such as learning from textbooks and writing notes from information provided on a white board still appears to be the norm for most students. This is consistent with the classroom descriptions provided by Rhines Cheney et al. (2005) that identifies guided teaching that follows a prescribed syllabus, where in general, the majority of work is individually completed with the expectation of specific topics in courses where students may work in groups. Further, in cases where digital software was used to help deliver lectures, participants indicated that students may not have access to the presentation from the teacher and were still required to make their own notes. Zeesha explained, “You have to make your hand written notes. That’s a sign of being attentive in the class. If you miss something, that means that you are not attentive and if that thing comes in the paper that’s your fault.”

According to the participants, written notes that they were expected to complete each day involved copying verbatim information that was provided by the teacher during a lecture or information from the textbook. Information provided by the participants may show that for international students from India, the term “notes” may imply something very different as compared with the intended understanding from a western perspective, and may be considered a part of the cultural learning environment at senior secondary schools in India. As the participants described, taking notes was often associated with attentive behaviour in class, something that was expected of them. Culture, as describe by MacKeracher (2004) is “a system of learned beliefs, values, and assumptions, customs, language, meanings, and behaviours shared with groups of

individuals” (p.192). Comparing this to a western context, the word “notes” can have a very different meaning and interpretation. For example, students may understand “notes” to mean the recording of information they consider important from the lecture in their own words. Further, lecture “notes” are often provided by faculty by means of allowing access to the lecture slide deck and other resources prior to the class.

While the requirement to take notes during a lecture may be considered part of the cultural learning environment, it may also be considered a key strategy commonly used to facilitate learning through memorization, a commonly used learning strategy in senior secondary schools in northern India. According to Edward & Tonkin (1990 as cited in Zhou & Zhang, 2004), note-taking tends to emphasize listening as compared with speaking in class.

#### 4.3.2 Learning Strategies

Learning strategies identify methods commonly used by students to organize and use information with the attempt to learn something. Conversations with participants revealed two main learning strategies that were considered different from each other and important for describing how participants learned during their senior secondary school years. These two learning strategies are described in themes 2 and 3.

**Theme 2 Coaching:** Coaching was an important part of senior secondary education that was completed before and after school at another institution that was different home school.

Through my discussions with the participants, it was clear that coaching classes were considered a large part of everyday life for students in eleventh and twelfth standard. Although not mandated by the schools, it may be viewed as a socio-cultural

expectation of parents. Students in eleventh and twelfth standard were required to attend coaching sessions before and after school. These sessions were required to help them prepare for Board and competitive exams that occurred at the end and after twelfth standard. As Raj described, the motivation to attend coaching may be due to the expectation to achieve high marks in the twelfth standard exams:

So basically the day started like, I woke up at 4:30 or 5:00 in the morning, and then I went onto [tutoring], basically that are like coaching for extra studies outside the, like tutoring basically, so we went for tutoring almost every student in India goes for that in grade 11 and 12 basically depends upon students ability as well but because getting highest marks is the main motive of the every student

Participants described feeling tense and stressed about having to accomplish multiple tasks in one day that included school and family responsibilities in addition to coaching classes. Although participants described what may be considered a stressful experience, Zeesha described a different viewpoint that shows the benefit of attending coaching classes. This different viewpoint may not have been initially visible but is much more apparent in a new learning environment:

So, it's really tough. So, the biggest impact on our lives was the coaching, and like now those people who have studied really well, who have done really well in coaching, when they come to college here, they feel the college is easy. The thing is if you have done good in coaching math, if you are fine with the coaching classes you can tolerate anything in life, no matter what is thrown at you. Even if you are like in hell for one month that's fine, if you are in coaching centre for one month that's more fine. It's the toughest thing.

The description provided shows that although coaching classes were known to be tough and very stressful, Zeesha was now able to see the benefit coaching may provide in a new academic environment. In contrast, it was not clear whether the feelings of stress described by the participants were primarily due to the coaching classes themselves or due to a feeling that may be considered secondary to the expectations to achieve high marks in the twelfth standard exams. Often referred to as the “Kota life” Raj explains the perceived negative impact of coaching, along with additional socio-cultural expectations may have on twelfth standard students from India:

So basically, there are many web series and documentaries based on this Kota life or not only Kota life, basically it's the life of every student that is preparing for IIT. So the Kota life is like you go up, go into the coaching institute, study, come home, practice all of that, and then sleep for two three hours and again in midnight you wake up and study and then sleep for two three hours, so that's something hectic. That destroys your brain. Why study for something that you don't want to study? So, they are forcing themselves to study something they don't want...the Indian culture it forces you to do that.

The roll and mixture of emotions in learning is well supported in the literature and shows that it is a factor that needs to be considered when evaluating how adults learn. Dirkx (2008) identified that negative emotions can impact both learner motivation and self-esteem, when disagreements or differences of opinion for how best to complete the project are present. Brookfield (1986) as cited in Dirkx, 2008, compared adult discussion groups to a “psychodynamic battleground” and identifies that adults may

have to learn in an environment that is emotional. Further the anticipation of being evaluated often generates emotional responses from learners (Dirkx, 2008).

The requirement for coaching described by participants is consistent with Rhines Cheney et al. (2005) who suggested that coaching was required to achieve high marks on exams that were needed for post-secondary admissions in competitive programs at highly reputable institutions. Rhines Cheney et al. (2005) reported that students who graduate with a Bachelor's degree from a non-professional school have "virtually no marketable skills" (p. 21) and a degree in Arts and Science is considered "meaningless in the marketplace" (p. 21) due to variances in the curriculum between institutions. Additional research may be beneficial to fully understand the coaching system and possibly methodologies used to help students prepare for twelfth standard Board exams. Further, this may help to bring clarity on the cause of stress expressed by participants and understand whether it is due to socio-cultural expectations to achieve high marks in the twelfth standard exams or due to the coaching practices themselves that involve long hours outside of the regular school day.

**Theme 3 Memorization:** The main strategy used by students for learning in their senior secondary school in India was memorization.

Assessment of learning in senior secondary school in India consisted mainly of exams that may have required memorization of prescribed curriculum. Curriculum was often taught as presented in the prescribed textbook(s) using a lecture-style mode of delivery often taught in English. Learning relied heavily on the use of textbooks as prescribed by the Board to help students prepare for the twelfth standard Board exams. For this, participants described having to memorize curriculum from the textbook that

was then rewritten verbatim on the exam answer sheets as Ash and Zeesha explained:

Ash: You have to write same. You can't even change one line. If you change one line, they cut the marks.

Zeesha: We do have to memorize everything.

Ash: To pass that exam you have to memorize everything.

Zeesha: If you, like if you focus on something else you won't be able to reach anywhere.

Since learning relied heavily on rote memorization, Raj explained that students could achieve high marks by memorizing and accurately reciting back content from the textbook:

So usually in India what happens is uh, people don't work hard all year. Since I told you there's one exam at the end of the year. It usually happens in this time period these months. So now all of the students are just sitting at home opening the textbooks and just memorizing memorizing memorizing.

Descriptions provided by the participants are consistent with findings reported by Ninnes et al. (1999) and Nayak and Venkatraman (2010) that describe the frequent use of rote memorization for learning. Although one participant in this study indicated that other strategies were also needed, this may not be considered normal for helping students to prepare for the Board exams. Participants described two main learning strategies that were commonly used during their secondary school years in India. This knowledge may be used to help us to begin to understand why international students from India typically are known to rely heavily on rote memorization strategies in a

different way since this may be considered an essential skill for students to master to be successful in the Board exams.

### 4.3.3 Learning Assessments

Assessments commonly identified by participants that were used to assess learning in their senior secondary schools in India are described in theme 4.

**Theme 4 Assessments for Learning:** Assessment of learning in senior secondary school in India consisted mainly of exams and assignments, with a strong emphasis placed on preparing for the Board and competitive exams at the end of grade 12.

Scoring high marks on Board exams was views as the most important part of senior secondary education in India. After tenth standard students in senior secondary school are focused on preparing for the Board exams that occur at the end of twelfth standard. One exam, written in core subject that is completed on a specified day and time determines “how much you have studied for the 12 years,” explained Raj. Each school may decide which Board they would like to follow including those at the state level (i.e., state Boards) and national boards (Central Board of Secondary Education; CBSE). If the Board accepts the school, the school is then required to follow curriculum, including textbooks that is prescribed by the Board, as Zeesha explained:

The ministry of education controls everything. They have a specific Board design for it that is called the Central Board of Secondary Education. After class tenth, eleventh and twelfth class is under the Board. You give your twelfth exams from the Board. So, if you’re scoring less, the Board will be asking the school why is the student scoring less. Usually the exams are organized by the school. Like in [the host institution] the midterm exam is organized by the

teachers. There, the Board in which the school is following they will be setting up the exams. They will be telling you the specific date and every school under that Board will be following that time schedule. Different states no matter where they are. Even if they are in the north of India, south of India they will be giving the same exam. So, it's a national headline, so the school exams are coming, the Board exams are coming, the national headline will be there school exams tomorrow.

Participants explained that completed exams are collected, shuffled, and distributed to different regions of India, and may be evaluated by a teacher from a different school and possibly even in a different state. Based on this, it is understandable that an exact answer may be required to ensure consistency and fairness with marking across states. Further, it may be beneficial for teachers to be provided with a single correct answer mark, which minimizes subjectivity from the evaluation of student exams. This is very different when compared with a western college environment in which instructors evaluate student assessments in courses that they teach. High marks on the Board exams were required for college admissions as Zeesha explained:

You will have to take really good marks in class twelfth. And the cut off for good colleges are basically out of hundred 99.11, 99.33, that's like the cut off. You will have to take that kind of marks to get into college. I'm not saying the toppers [students who are academically at the top of the class], the toppers take 99.97, 99.98.

Participants explained that high marks are required for college admissions for two main reasons; first due to a large number of application received by colleges each

year, and second due to the competition to receive admissions in schools that are considered top colleges in the country. These schools require a minimum mark on the Board exams in order for students to qualify for an opportunity to write the competitive exam. Participants described the fear they felt in the atmosphere in the schools around exam time:

Zeesha: It creates a fearful atmosphere. It's like we are near Boards now. Two months before Boards we are like no matter if you don't have anything to do, let's say you have done everything, still you'll be thinking we have Boards in two months.

Malhi: Even if you don't believe in God the people are like please God, please God

Zeesha: You will start believing it. Yah, that creates a very tough environment for the students, you know they are like okay that's a big deal if I fail in that man, I'm dead.

One challenge described by participants is the different preparation that was required for the Board exams as compared with the competitive exams. This may highlight a difference in approach to learning that although not common in India, may be still required. Participants explained that preparation for the Board exams required memorizing everything and application of knowledge or understanding information was not required to pass the Board exam. Further, the curriculum tested on the Board exams may be different depending on what Board the school follows. This is consistent with Rhines Cheney et al. (2005) who identified that there is "a significant difference in the curriculum offered correlating to the various examination" (p. 6). For example, Rhines

Cheney et al. (2005) identified that the “academic content and student marks from the CBSE and CISCE Boards are similar with the exception of English, since the CBSE Board focuses on “functional English” (p. 8) and literary studies is not included in the curriculum.

Differences in how English could be used or the purpose for which it may be is used, as described by Kukatlapalli et al. (2020) was consistent with findings from this project, and may help explain a possible inconsistency between students learning in English and their comfort level with asking questions in English. The conversation provided below also illustrates an interesting difference that may be attributed to the individual school or Board the school follows since both Zeesha and Malhi attended schools that were governed by the same Board (Central Board of Secondary Education, CBSE), whereas Ash attended a school that was from a different Board.

Zeesha: And the worst thing that scares the children is English. They will have to ask the questions in English.

Ash: Yah

Zeesha: If they are asking the questions in Hindi, even though [it is] our language, they will be like, no

Malhi: You are studying in an English school

Zeesha: You are in an English medium school. The Board is following English, speak in English. If you are not speaking English, we are not answering your question.

Ash: In our school, we had a penalty speak in Gujarati or Hindi. We have to speak only in English.

Based on this, it might be possible that international students from India may start a program at the host institution with learning experiences that may be different from each other, depending on what Board their secondary school in India followed. This is consistent with Jones (2017) who suggested that students from the same country may not experience a new learning environment the same way. The competitive exam, in contrast, required something different that often caused participants to feel confused.

Students who successfully passed the Board exams and achieved the minimum mark of 50% were provided an opportunity to write a competitive exam. Competitive exams are optional standardized exams for admission into specific college programs at the highest rated institutions in India, the India Institutes of Technology (IIT). The IIT schools are considered “world-class and core to the knowledge-based development strategy of the country, with the most rigorous curriculum in the world” (Rhines Cheney, et al., 2005, p. 24). For example, the Joint Entrance Exam (JEE) is written by students who have studied in the non-medical science stream and who has passed the twelfth standard Board exams for admission to a college engineering program. Similarly, students who have chosen the medical science stream are eligible to write the National Entrance Exam (NEE). The India Institutes of Technology (IIT) are considered the best and top post-secondary institutions in the country.

Participants described a fierce and stressful competition to receive a spot in an IIT, and top-scoring students on the competitive exams have first selection of the school and program they would like to pursue. According to the participants, approximately 17 Lakhs of students (approximately equivalent to 1.7 million people) write the competitive exams each year and only the top ten to twelve thousand will receive admissions to an

IIT. Raj described that only 50 to 60 seats are available at IITs for computer science, one of the most popular post-secondary programs in India. Students who score a rank of 10,000 or higher are unlikely to receive admissions in the school and program of their choice and may be required to seek admissions in other post-secondary institutions throughout the country. Raj described a popular saying from his town that “if you have done engineering [from another college] [there is] the highest probability that you will end up being unemployed in India”.

The competitive exams, that consist of multiple-choice questions, are graded and assigned a rank. Ranks (commonly referred to as All India Rank) are national and are published throughout India in newspapers. Students select the college they want to attend and the program they want to pursue in the order of their rank as Zeesha explained:

That is the JEE Advanced. If you do good in JEE advanced, you get the most prestigious university in India. That’s called the Indian Institute of Technology. And for that, out of those one lakh people who qualified for the JEE Advanced you will have to take a rank of at least ten thousand, max. If you have a rank of ten thousand you will be having a seat in the not so good IITs, the Indian Institute of Technology. If you have rank hundred you will be sitting in the most prestigious one, IIT Bombay.

While the competitive exams are technically optional, for some students it is a socio-cultural expectation that they study for and write the exam. Zeesha recalled a conversation with his mother:

So, I was like okay, so my journey after class tenth till class twelfth was like I'm focusing on two different things. First, I am focusing on my school life, second, I am focusing on the competitive life that will be coming after school. So, I was like okay I cannot do that.

The confusion expressed by Zeesha was consistent with other participants and may be due to differences in studying requirements that were needed to obtain a high score on the competitive exams as compared with the Board exams. Raj explained the difference:

So basically, what happens is into the Board exam the questions are like define this concept. So, they are pretty straight forward... There are something that are simple questions that are written into the textbook and you need to simply memorize them and transfer on the sheet. Whereas in the competitive exam, those are questions like they will give you a problem and then you need to think of the question and solve it and there are four options related to it.... and they are pretty tough questions. So basically, what they say is if you can complete ten questions into the advanced exam, you can crack the advanced exam.

Zeesha further explained that Board exams were considered easier relative to competitive exams and relied on rote memorization. The competitive exams in contrast required an understanding about the concept. Zeesha said,

Competitive exams don't want you to memorize everything. They want the understanding of that concept. If you understand that concept, you will be able to do fine. If you really understand that concept, like if you know everything

about that author, let's say everything about that book, every single thing, every single page then you will do fine. Then you will do really good.

Participants in the focus group agreed that they had high expectations to produce good results both in school and on the board and/or competitive exams, which caused a lot of stress and confusion. One likely cause of the confusion may be the differences in learning that was needed to be successful on the Board exams as compared with the competitive exams. Two different styles of learning for two exams that occur in close proximity to each other. The desire to secure a good job in their preferred field at a good pay rate after post-secondary may be a motivating factor for students to write the competitive exams. Participants explained that some of the top companies in the USA such as Google and Amazon hire from IITs. While deciding whether or not to write the competitive exam may not be an option for students such as Zeesha, Raj explained why he decided not to attempt the exam by recalling his friend's experience:

.... he went into IIT Jammu, into electrical engineering. And he had a dream of getting computer science and doing something like that but the craze of getting into IIT led him to take up electrical engineering. So that's basically what I didn't want to do. So basically, he is compromising.

Assignments that were used in courses were not considered important for teachers to assess learning and often had a low or no marks associated with them. Malhi recalled conversation with his mother where he perceived that there was a priority of calling family that was considered more important instead of completing a school assignment when his mother said "leave your assignment there and call her now". The perceived value of assignments was described by Raj:

Back in India we use to get the assignments but those were not marked. They were just part of the syllabus; you need to complete them just to learn. So, they were no not compulsory assignments that I can say those were not compulsory to complete. But if you want to score good and you want to learn, you need to complete them.

Descriptions about past experiences with assignments provided by participants may indicate that assignments were not frequently used by teachers as a method to enforce learning or for assessment of learning. Since one of the main learning strategies used involves memorization, the limited use of assignments may make sense. In this case, since assignments may require a more active approach to learning that often requires the application of knowledge, this process may be considered different and possibly not be helpful for preparing students for the twelfth standard exams. Comparing past experiences with assignments from India to the current experience at the host institution understanding the mechanics of the assignment, such as how much the assignment is worth towards the overall course mark appeared to be causing more confusion with participants as compared to the actual assignment itself. Zeesha explained:

Basically, when we are doing assignments in India it was not of that much weightage. Here it's like really a big deal. And now we sometimes get stressed because of it, because one assignment wrong you are like now our grade is less by ten percent, fifteen percent, that's not really something that we are use to. We use to focus on the exams only.

This confusion and stress described by participants may be supported by Taylor's Learning Cycle. Consistent with the literature, according to MacKeracher (2004), Taylor's model shows that adults may enter into a disorientation phase as a result of an experience that they perceive as different from their past knowledge (with assignments, for example), expectations, and/or preconceptions of what they believed to be originally true (Taylor, 1986). Since assignments were not considered an important for assessment of learning in courses in senior secondary school in India, this may cause the learners to experience confusion when they are unable to connect a new learning concept with their past experience (MacKeracher, 2004). In the case of assignments, past expectations and experiences with assignments are significantly different when compared with current experiences at the host institution, and this may create as challenging situation for the student that results in stress and uncertainty.

From the participants description, we can gain an understanding about the importance of the Board and competitive exams and more importantly, what may be required to prepare for those exams. This information may be used by the host institution to gain a better understand about the use of learning strategies such as memorization that may be required to prepare students for the Board exams. Further, although assignments were not considered an important part of learning, learning challenges described by students may be attributed more to a lack of understanding about the language surrounding the mechanics of the assignment as compared work involved with completing the assignment itself.

#### 4.3.4 Learning Relationships

Relationships we have form the basis of “the self” through interactions with others (MacKeracher, 2004). According to MacKeracher (2004) a positive self concept increases responsiveness towards learning. Theme 1 explored the past learning environment from descriptions provided by participants. Building on this, MacKeracher (2004) identified that adults learn best in environments that allow for the development of interpersonal relationships with teachers and classmates. For participants, other socio-cultural relationships that occurred outside the formal classroom setting were also considered important influences for learning. These relationships are explored in detail in themes 5 and 6.

**Theme 5 Teacher-Student Bond:** A strong teacher-student bond that fosters discipline and respect was considered important to facilitate learning in the senior secondary school years.

Discipline and respect are guiding principles that are strongly implemented by schools and followed by senior secondary students in India. From greeting the teacher to personal items that may be worn or brought into class, participants described high levels of discipline and respect that they were expected to follow in their senior secondary schools in India. Students were expected to be on time to school and may be sent home if they arrive late.

Senior secondary school students in India are required to wear a school uniform. Mobile phones, laptops, and jewelry were not permitted in schools. Participants were checked before entering the school to ensure that they were wearing the proper uniform, that they were not wearing jewelry, and that their belongings did not contain any

electronic devices. Student agendas were stamped for any uniform infractions and after three infractions, students were sent home. In Malhi's school, the Discipline Principal conducted the pre-school uniform checks and showed students to their assigned seat in the classroom. Participants described having to wait at the door for permission to enter the classroom. Similarly, permission from the teacher had to be given for a student to leave the classroom.

Participants explained that food and drinks were not permitted in classrooms and consuming food items during class was considered a sign of disrespect. Students were expected to consume food and beverages during the lunch break that was identified on their schedule. When meeting the school principal, participants described having to stand up straight, with their hands behind their backs and greeting the principle while looking him/her in the eyes. Properly addressing a teacher in India is expected and is considered a sign of respect and formalizes the teacher-student relationship. Participants explained:

Zeisha: And the thing is whenever you see a teacher, even if she is not your teacher, even if you don't know anything about her, you will have to say good morning mam

Ash: You have to greet her

Zeisha: Morning sir. If you are not greeting her she may stop you and say where's the greeting?

Malhi: You are disrespecting me

Zeisha: When I came to [this college] you have to say hi to teachers. We never say hi to teachers. Because if you do that the teachers will be like you are not my age

Malhi: We are not friends

Zeisha: You're my student. Say good morning mam.

The teacher-student bond is important to facilitate learning and may be strengthened or challenged in the senior secondary school years. The teacher-student bond was considered important to participants to help facilitate their learning in senior secondary school in India. In most cases, participants described a negative bond and described feeling a lack of help and support from their teachers. Zeesha and Ash described the bond with their teachers and compared this to the bond they feel today with their teachers at the host institution.

Zeisha: Teachers are not your friend in India

Ash: Yah

Zeisha: They are teachers. Like literal teachers. They will teach you everything. If you are not learning that thing bye-bye, you are not allowed to stay in the class. So here, teachers are really fine. Do this child, and do this child, take my help whenever you want.

A strong sense of discipline and respect may form the basis of the formal relationship that exists between teachers and students described by the participants. Participants explained that teachers are considered very powerful in India and have expectations to maintain a strong sense of discipline and respect in the classroom. This

strong sense of discipline may be seen in the actions of the teacher in a description provided by Zeesha:

Like one day before the exam, the Board exam, I was sitting with my professor and I was like really tense [...] [He] was like you “didn’t study the whole year? What do you expect, you’ll fail! [Zeesha says] Help me! I’m in a situation here (Laughing). He was like making me panic. He was like “it’s not my fault dude, you will fail, I’m telling you.

Further insight into the formal relationship that teachers in India have with their students was described by Ash who indicated that they are not permitted to contact teachers outside of class time. The participants explained that they were not able to contact their teachers for help outside of the classroom, and they were not permitted to contact teachers through email. In contrast, participants also indicated that they enjoyed the informal relationship they currently have with teachers, although they found it awkward saying “hi” and addressing teachers by their first name. Further, participants appreciate being able to contact their teachers at the host institution through email which they feel helps their learning. Although participants understood that these academic cultural etiquettes were considered acceptable at the host institution, they described continuing to address their teachers as mam or sir, greet them with “good morning” and still feeling the need to explain to them why they may be late or absent from class. This shows that students may tend to follow practices that are familiar to them even in a new environment that is different from the one the student was used to.

Macgregor and Folinazzo (2018) identified that the level of trust that comes out of a positive teacher-student relationship is important for creating an inviting learning

environment. Consistent with the literature, Raj described a close relationship he had with one of his teachers who he felt encouraged his learning.

Basically, back in India, I usually had some bond with certain teachers like.... So that's the kind of bond that I miss over here. ... When we are connected to the teacher, we are willing to talk even the silly things with them as well...So basically, when you meet some new teacher or new person, you hesitate that how will this person judge me, I don't know this simple concept as well. When the person starts knowing you, you are not hesitant what will this person judge me. Even if there is a teacher student bond, there is still one single short narrow line what will this person think of me if I ask this question.

The description provided by Raj shows the importance of the teacher-student bond and how it may change in a different learning context. By understanding the past relationship students had with their teachers from their country of origin, this information may be used to predict and mitigate challenges as the bond between the teacher and student changes in the new learning environment. While participants described a formal relationship with teachers that may be considered the norm, it was also clear that participants also enjoyed and welcomed a more informal relationship with their teachers, if it was permitted.

**Theme 6 Cultural Norms and Parental Expectations:** Cultural norms and parental expectations may impact learning in senior secondary school and beyond. Family connection was considered an important influence in the lives of the participants. Participants also described a need to be close with family that often provided a strong sense of support during their senior secondary school years. Malhi explained, “my

father is pretty much straight forward. Even if I'm not free, he will just ask me are you free? If I say I'm doing something it's alright. We can even live without talking to each other for a month". Zeesha recalled regular phone calls with his mother that often occurred at three o'clock in the morning, due to a time zone difference. Further, Zeesha acknowledged that he currently lives with his aunt because he feels he is unable to live without family. As an influential factor, family expectations may determine whether or not a senior secondary student writes the competitive exams. Zeesha recalled, "In class tenth my mom said get into a coaching centre [,] you will be focusing on JEE. And I said I don't want to focus on JEE. But she said it's a must, you will have to". In Zeesha's family, there was a clear expectation that he would write the competitive exam.

The close family bonds described by the participants make sense based on features that are common with emerging adult development in India. This is also consistent with Vygotsky's socio-cultural theory suggesting that interactions with people play an important role in cognitive development (Merriam & Bierema, 2014). Mines (1981) observed that many adults in India remained connected to their parents due to expectations to fulfill societal roles and obligations. Further, Mines (1981) reported that although participants remained dependent on their family and society for longer periods of time, they had the desire to have more autonomy of their own lives. However, changes in socio-cultural expectations that were described may be challenging for participants to accomplish. In India, socio-cultural expectations in the senior secondary school years are focused on achieving good marks on exams. Participants described a change in the expectations of their parents when they arrived in Canada, from school-based to work-based. Raj explained:

So, what's happening is in our culture and basically where I belong what happens is if one person is doing it, and if the second person also achieves it, everybody can do it. They expect it like that. So, if one person can end up earning their [fees] or saving their [fees] and then putting like uh contributing what the parents are uh sending the money for the fees and they can say that I have saved some money I can put that sum of money into my fees as well. So, I think that should be the culture.

Raj described having to always compete with his peers that he considered normal within the culture. He explained that if one of his friends accomplished something good, he was also expected to accomplish the same thing. Raj described the pressure he currently feels with having to find a job and study at the same time. Raj explained that in this context, school is not considered important to parents and working to earn money is considered the correct behaviour within the Indian society.

Finding a part-time job and working. And that's a huge pressure. So, my parents are the people don't expect me to score good marks over here. So, they don't expect me to uh do a lot great here, rather than they would think if I earn more, if I earn something and add up to my fees that would be great rather than studying. So basically, what's happening is since the expenses are too high for uh sending it from India the study is not the priority over here. That's something that changes with the country. In India, study was something that was important but here earning money and supporting yourself is more important rather than what you are studying or doing. So basically, if you are not doing well at school that's acceptable. But if you are not earning money and sitting home and only

studying that's kind of bad. You are not doing something up to your abilities.

Rather you are toping or doing something good at college, doing good at studies that's why they think you are not an ideal student, ideal person, or ideal student of your age.

Relationships described by the participants are consistent with the literature that suggests adult development in India is influenced by society and culture (Mitra & Arnett, 2019, Morrow, 2013). This is important information for facilitators to know because it may help explain the requirement for competing responsibilities and pressures international students from India may experience by attempting to have a job while also attending school.

**Thematic conclusion:** Six themes that emerged from the textual descriptions describe what learning was like from the participants perspective at their senior secondary schools in India. The themes show that participants valued having strong socio-cultural support from family and sometimes from teachers to help and guide them through their senior secondary school years. Participants viewed their teachers as an authoritative provider of knowledge and considered the bond they had with their teacher very important for their learning. Although participants desired an informal learning relationship with their teachers, this may not have been possible due to socio-cultural expectations expects a relationship demonstrating discipline and formal respect. Preparing for the Board and competitive exams were identified by participants as the most important task in their senior secondary years that caused a large amount of stress for them. However, participants believed that the preparation required to be successful

at the exams was now helping them to make the transition to learning in a new environment easier.

Consistent with Zachariah (1993, as cited in Ninnes, et al., 1999), the use of rote memorization as a learning strategy to prepare for tests and exams was also described by the participants; however, the past learning experiences may also show a reasonable explanation for the use of this method. According to the literature, the 12<sup>th</sup> standard Board exams may have differences in subject content (Rhines Cheney et al., 2005). Knowing that the exams are evaluated by teachers from different schools in possibly different states within the country may help justify why answers provided on the exams need to be standardized. This process, in theory, may eliminate the subjective differences that can occur in evaluating student answers. Overall, evaluation of the six themes demonstrates the benefit of understanding the past learning experiences of international students from India. The information provided by participants may start to form a basis for new knowledge that when used, may help instructors broaden their understanding about international learners from India, to facilitate learning at the host institution.

#### 4.4 Analysis

Consistent with the literature (Kukatlapalli et al., 2020; Ninnes et al., 1999), information provided by the survey demonstrates the demographic diversity within the population of participants. Table III shows that each of the 16 participants originated from a different urban or rural city, town, or village in India. Further, Table IV shows that different languages were often used for different purposes. In this case, the language chosen may not always be English especially when communicating with

family and friends. The information from the survey may be used to support the idea that each demographic region, city, town, or village may have variances in the secondary education curriculum that is governed by different Boards. This reality may create different learning experiences for the students. This would be consistent with Burns (1991), and Boonyanate and Simkin (1996), as cited in Ninnes et al. (1999) who reported “substantial variations in teaching and learning from one country to another” (pp. 324-325).

Specifically, data from the survey provided valuable information from the participants’ past experiences with the use of English during their secondary school years in India. Findings from the survey showed that in-class discussions did not always occur in English. More importantly, the data shows that other languages, in addition to Hindi, may have been used for in-class discussions and for communicating with family members. Finally, challenges with assignments described by participants appeared to be more related to the mechanics of how they should be completed at the host institution as compared with a lack of understanding about the assignment itself. When evaluated against current literature, this information may provide an alternate explanation for the English language challenges often experienced by international students (Boonyanate & Simkin, 1996, Burns, 1991, Guo & Guo, 2017). The findings described above help illustrate the different types of English identified by Delpit and Dowdy (2002) and show the benefit of gaining a deeper understanding about how and when English is used by students during their K-12 academic years. It is therefore reasonable to assume that international learners may arrive at the host institution with a different understanding

about how to use academic English correctly, that is based on their past experiences from their senior secondary school in India.

Consistent with the literature, participants in this project also described challenges specifically with asking questions in English. Differences in the medium of instruction reported by participants in the survey is consistent with Kukatlapalli et al. (2020) who identified that India is considered a linguistically diverse country. Hindi is the official language, and there are 14 other official languages that may be used at the state level. Understanding this, facilitators may benefit from knowing how much and what type (i.e., in class discussions, lecture, assignments, etc.) of past learning occurred in English. While this information was not evaluated in the study conducted by Kukatlapalli et al. (2020). Kukatlapalli et al. (2020) did identify that further research may be beneficial to evaluate the academic reading and writing skill development of international students from India. Specifically, this could include the use of student supports that are provided by the institution and assessing the role that past experience and culture play in the development of these essential skills (Kukatlapalli et al., 2020).

The information provided by participants in the survey may be considered a starting point that allows educators to understand the great demographic, linguistic, and cultural diversity that exists in India. This information, when analyzed along with data from the focus group and interview, provides a deeper understanding about the essence of the phenomenon as experienced by international students from north India.

Ad verbatim quotes carefully reviewed identified six emerging themes, which were sorted into four main categories. Phenomenology was selected as the best method that allowed for the past learning experiences of international students from India to be

described. The learning environment was explored in theme 1 and included the physical and cultural learning environments as described by the participants. Key features of the learning environment include physical factors such as chairs and tables set up in rows and air conditioning that was newly installed in one participant's school during his twelfth standard year. A key feature of the cultural learning environment included the requirement to make notes that were copied verbatim from information provided by the teacher during lectures. These descriptions highlight differences in the physical and cultural learning environments that may provide valuable information when extrapolated to the western context. With respect to the physical learning environment, differences may be observed in experiences described by students based on the demographic location of the school. For example, Malhi's school recently installed central air conditioning, which already existed in the schools attended by the other participants in the focus group. Participants in this study arrived in Canada in late December 2019 and started their academic program at the host institution in January 2020. According to MacKeracher (2004), "we need to think critically about our learning environments and contexts before they become problematic" (p. 187). Therefore, an international student originating from a senior secondary school in India irrespective of whether or not their school had central air conditioning may likely find college classrooms at the host institution cold, particularly during the winter months, that may create an uncomfortable learning environment.

Students who are accustomed to learning in a room where chairs and desks are arranged in rows may initially find seating variations such as large desks or puddle tables (i.e., round tables that seat approximately 4 students) uncomfortable or distracting

at the host institution. Although international students from India are from a culturally collectivist society, the physical learning environment may promote individualistic learning, and as such, these students may initially find tasks such as group work challenging. In a study published by Zhou and Zhang (2014), international students reported that they were not encouraged, or prepared to actively participate in group work, which caused them to feel awkward in a Canadian college learning environment that emphasizes collaborative learning (Zhou & Zhang, 2014). This shows that past learning experiences as described by international students may provide valuable information to help the host institution understand common challenges experienced. On the surface, challenges such as feeling awkward in a collaborative setting may initially appear to be language-based; however, a closer look at past learning experiences that describe the physical learning environment experienced by the international student may provide some additional insight that may not be otherwise apparent from the surface.

Note-taking during lectures was described by the participants as an expectation of their teachers that was used to show attentive behaviour in class. The descriptions provided may help explain specific challenges such as plagiarism that international students from India may experience at the host institution. The expectation to take notes during a lecture that are directly copied from information provided by the teacher or a textbook may be understood as acceptable if it is considered a part of the cultural learning environment at the senior secondary school in India. In this case, proper academic referencing may not be required or taught since the information in the student's notes would be from one of two sources, either from their teacher or the prescribed textbook for the course. However, the same task of note-taking that uses

skills learned in senior secondary school in India, if applied in a new learning environment at the host institution may be considered plagiarism. Nayak and Venkatraman (2010) identified that international students who may not understand the academic learning culture at the host institution may unknowingly “apply their earlier held assumptions, values, beliefs, and approaches,” (Schein 2004 as cited in Nayak & Venkatraman, 2010, p. 3).

This difference in language interpretation is also consistent with results published by Sparapani et al. (2014), who identified key differences in teaching and learning by observing over 256 kindergarten through grade 10 mathematics classes, in over six different schools in rural and urban cities in south India. Although participants in this study did not include students in senior secondary school (i.e., grades 11 or 12), some findings from the study may provide valuable insight into how learning is approached in schools in India. For example, Sparapani et al. (2014) observed that curriculum was often taught in a language “that was, at best, a second or third language for the teacher, and learned by students in a language that was, at best, a second or third language” (p. 9). In addition, common words that are used in everyday language may have specific meanings in courses such as math, and when teaching and learning occur in a language that is not considered native, “complex negotiations of meanings” (p. 9) may occur. The findings of Sparapani et al. (2014) are consistent with Nayak and Venkatraman (2010) who showed that academic difficulties experienced by international students may not be originating from their understanding of the English language, but from their lack of ability to understand new and different academic expectations at the host institution. In my conversations with the participants, each one spoke fluently in

English and had no difficulties understanding my questions. Further, each participant was able to respond to my questions in English and there were no difficulties understanding the descriptions they provided.

Common learning strategies used by participants during their senior secondary school years in India were explored in themes 2 and 3. Two learning strategies commonly used by participants were coaching and memorization. Coaching was considered important by participants especially during the senior secondary school years. Although difficult, and often sometimes stressful, one participant acknowledged the benefit coaching had on his transition to learning at the host institution. The use of rote memorization as a common learning strategy was reported by participants in this project and is supported by literature (Ninnes et al., 1999; Nayak & Venkatraman, 2010). Understanding the importance of the twelfth standard Board exams and the type of learning that students are expected to demonstrate to successfully pass, it may be of no surprise and possibly even unrealistic to expect a high school student from India to have skills that would allow them to answer applied-type questions. As indicated by the participants, senior secondary school curriculum after tenth standard is regulated and monitored by education Boards and according to participants, a specific answer, that is essentially very similar to the Board's prescribed textbook is required to be reproduced on the exam for full marks. The Cummins (2009) Nested Pedagogical Orientation Model discussed by Gagne and Gordon (2016) identifies three different approaches to pedagogical delivery: transmission-orientated pedagogy, social constructivist pedagogy, and transformative pedagogy. Descriptions provided by the participants in this project may show that a transmission-orientated pedagogical approach was used in their

secondary schools in India. This approach is similar to the banking model described by Freire (1993) where the goal is to “transmit information and skills articulated in the curriculum directly to students” (Gagne & Gordon, 2016, p. 534). When compared with pedagogical approaches commonly used at the host institution that foster the development of critical thinking, it may be reasonable to suggest that international students from India may be learning curriculum at the host institution through a different pedagogical lens. If this is true, students coming from a past learning experience that delivered curriculum mainly through a transmission-orientated or banking approach might be expected to experience challenges with skills such as self-directed learning and applied critical thinking when we change the pedagogical lens.

Although Ninnes et. al., (1999) identified that the teacher was important for helping students to obtain a balance between memorization and understanding, this would be a difficult task for any teacher to accomplish due to the apparent lack of power teachers may have in delivering curriculum that has been prescribed by the education Boards.

The role of relationships in learning was explored in themes 5 and 6. Participants described the importance of a close bond with their teachers which they desired and described as important for their learning. Descriptions further identified that the normal teacher-student bond that did occur was a formal relationship that was built following high expectations for discipline and respect that are consistent with the relational development pathway that focuses on connections with others and interdependence (MacKeracher, 2004). In contrast to Western societies, becoming an adult in India appears to be strongly influenced by socioeconomic status and culture

(Mitra & Arnett, 2019, Morrow, 2013,). This is consistent with the relational (or connected) adult development pathway described by MacKeracher (2004) and understanding this path may help explain why international students from India may not initially thrive as self-directed learners, a feature often associated with the autonomous or independent adult development pathway.

Understanding these different developmental pathways is important because, according to Austin, 1976, as cited in MacKeracher (2004) an approach to learning that that requires self-directed learning skills may initially “create barriers for learners who follow the relational path of development and sometimes excludes them entirely” (p. 153). This would be consistent with past experiences described by the participants that are consistent with a receiving approach to learning, where knowledge comes from external sources including family members and teachers (MacKeracher, 2004), making them important and influential in the learning cycle. Kenner and Weinerman (2011), explained the disconnection with learning that can happen when the previous learning experiences of a student are different with current practices.

Through exploring the participants past learning experiences, a deeper understanding about key relationships that may be important for understanding adult development in India. In turn, this may provide essential information needed to help students to progress through the disorientation phase and enter the exploratory phase of the learning cycle (MacKeracher, 2004). The ability of the student to receive knowledge (or learn) may therefore be considered dependent on a strong relationship in which the student perceives the teacher as a powerful authoritative provider of knowledge. Therefore, by understanding the importance of relationships for learning and considering

international students from India may be accustomed to receiving knowledge from powerful authorities, may allow facilitators at the host institution to apply knowledge about their past learning experiences to principles of adult learning and development to predict challenges they may experience that could result in disorientation.

Additionally from theme 3, we know that participants described using memorization as one of the main learning strategies which may be considered received knowledge, since knowledge is obtained from textbooks or the teacher. MacKeracher (2004) further explains that adults who rely on received knowledge “tend to assimilate knowledge from external sources as if it were their own and to reproduce it without any substantial deviation or correction based on personal experience” (p. 159). Patterns of behaviour that were described by the participants are consistent with a banking pedagogical approach (Freire, 1993) that forces them to learn by receiving knowledge from their teachers (MacKeracher, 2004) which is then reproduced verbatim on the Board exams. Participants explained that teachers are considered very powerful in India and have expectations to maintain a strong sense of discipline and respect in the classroom which is a viewpoint that is consistent with characteristics of received knowers that identifies “perceived authorities as powerful and infallible, as the major and only acceptable sources of knowledge in their world” (p. 159).

Key themes important in adult development in India include a strong responsibility towards family, meeting parental expectations, and a combined work-school life which was more apparent in rural areas, was identified in the literature (Mitra & Arnett, 2019; Morrow, 2013;). A change in socio-cultural expectations was described by participants where earning money was considered more important relative to

achieving high grades at the host institution. This was consistent with the literature, where for many children living in rural Andhra Pradesh, India, work, and school were not mutually exclusive life events and skilled trades were considered highly valued. According to Kundu and Adams (2005), individuals from an East Indian cultural background have their self identity defined “by the relationships that exist within the family and the larger cultural community” (p. 197). When examined in relation to adult learning principles, the learner may become more responsive to learning through the development of these interpersonal relationships that include relationships with their teacher and classmates (MacKeracher, 2004).

In contrast with individualistic characteristics, such as independence associated with becoming an adult (Nelson, 2005) in a Western society, becoming an adult within the East Indian culture involves understanding individual roles within the family construct, and accepting more responsibility for roles within the family (Ahmed, 1999 as cited in Kundu & Adams, 2005). For emerging adults in college and non-college students in Coimbatore, India, characteristics such as keeping the family safe and being able to financially support one’s family, particularly parents, were considered important for becoming an adult, and were consistent with other Asian cultures that follow collectivistic values (Seiter & Nelson, 2011). The descriptions provided by the participants show characteristics often seen in collectivistic societies. Within collectivistic societies, children are often prepared early in life to fulfill adult roles and this leaves less time for individual identity development (Seiter & Nelson, 2011).

In conclusion, the six themes identified from the rich descriptions provided by the participants, provide a unique insight into their past learning experiences from their

senior secondary schools in India. From long days to high family expectations to understanding the role of the Boards in secondary education and the importance of relationships in learning, these differences form the basis of the participants' past learning experiences. Further, the descriptions from the participants may help us identify certain learning practices, such as memorization, that were common in senior secondary school and possibly provide an explanation to help us understand the need for those practices in a different way. An interconnection between themes can be observed that related to learning. For example, close relationships formed during development are characteristic of a relational developmental pathway (MacKeracher, 2004). In addition, past learning strategies that emphasize memorization are consistent with how international students from India are accustomed to receiving knowledge (MacKeracher, 2004). As "received knowers" (p. 159), international students from India perceive the teacher student relationship as important and essential for learning since teachers are viewed as powerful authorities to deliver knowledge. This would help explain the formalness of the relationship described by participants and highlight a difference that may be perceived as a challenge by international students from India at the host institution. Therefore, when analyzed together, these themes highlight differences in the past experiences that, when understood within the context of adult learning principles, may provide information to help international students from India transition into a new learning environment at the host institution.

## 5.0 Summary and Recommendations

### 5.1 Summary

Using descriptive phenomenology (Creswell & Poth, 2018), this project described the lived experiences of first semester international students from India enrolled in the Applied Computing program at a college located in southern Ontario. Students from India make up the largest population of international students at this institution, with the majority of students enrolled in classes at the one specific campus. This project was important because it started to respond to what was identified by Guo and Guo (2017) as a limited amount of research available from international undergraduate students' experiences, from their own perspectives, within the Canadian education system. This project attempted to provide information that described the past learning experiences of international students from India and may act as a starting point for post-secondary professionals.

The focus of this project, describing the past learning experiences of international students from India, is consistent Jones (2017) who identified various factors that may impact learning in a new environment. Jones (2017) identified that differences between past experiences and what students experience at the host institution can be large or small and include factors such as prior study experience, preferred learning style, the equivalence of education system with the country of origin and familiarity with the education system of the host institution. The importance of past experiences for adult learners, and the challenges that can arise when their previous experience is not considered, helps to determine a need for this type of project. Further, understanding that each group of international students come from countries with

different cultures, societies, and ways of learning, I believe that a project that focused on one particular group of international students was beneficial. Rich descriptions provided by the participants highlight differences in past learning experiences that may be attributed to the Board that the school follows. This shows that although participants were from the same country, learning experiences may be different depending on demographic location and the Board followed.

According to Burch (2008) prior learning experiences that international students have may not be compatible with methods and strategies used at the host institution. Therefore, international students may require more time to “modify their learning behaviour” (p. 19) Our students can quickly adapt to a new learning environment, if we provide supports that are designed to incorporate and encourage the use of past learning experiences to support the transition to the new learning environment at the host institution. Sikkema and Sauerwein (2015) identified “Asian students are highly adaptable to the learning environment and the effect of culture may diminish with time” (p. 84). In addition, learning styles may not be static and may change over time (Sikkema & Sauerwein, 2015), and Auyeung and Sands (1996, as cited in Sikkema & Sauerwein, 2015) who observed the use of different learning styles within similar cultures. The concept of “contextually-driven” is very important when considering learning at the host institution since learning in a college program, where class sizes are often smaller and learning involves more hands-on applied activities, may be very different from the large classes typically associated with common first year university courses. In addition, the informal teacher-student relationship that exists at the host institution is very different as compared to the formal teacher-student relationship that was described by the participants. By understanding this difference, instructors at the

host institution can help ease the transition for international students from India by understanding specific attributes characteristic of a formal teacher-student relationship that students may exhibit early in the program.

According to Caffarella and Clark (1999), autonomy was identified as the “pinnacle of human development” (p. 97) based on the works of various scholars such as Maslow (1970) and Kohlberg (1973), and the need to become “a self-directing human being” (p. 97) has a history in one of the five assumptions of andragogy (Caffarella & Clark, 1999). According to Knowles (1980, as cited in Caffarella & Clark, 1999), “as a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being” (p. 97). Based on this, when compared with the literature, I believe that the process of maturing and being able to transition from a dependent personality to being self-directed may take longer for emerging adults from India due to the strong influence of the family unit, and the cultural norms to stay connected to the family for longer periods of time. This was evident in the descriptions provided by the participants, who still had close connections with their family despite being in a different country in a different time zone. The concept of “connectedness and interdependence” (p. 98) are considered as “important in the developmental process as autonomy and that context is highly salient” (Caffarella & Clark, 1999, p. 98). Strong family expectations and obligations that are associated with cultural norms in India that are considered an important part of society may result in students continuing to exhibit a more dependent learning style when they transition into a western post-secondary college education system.

In conclusion, key findings from this project may provide powerful knowledge for educators who work with international students from India, as well as students from many other countries that share similarities with the Indian education system. By applying principles of adult learning, we can now understand that adult development in India may follow a relational developmental path that does not initially foster the skills required of a self-directed learner early in the emerging adult phase. In addition, from the participants' descriptions, students may be required to memorize a prescribed textbook in preparation for the Board exams, it may be assumed that their ability to apply their knowledge may be limited, especially if they have not completed a competitive exam.

As “received knowers” (MacKeracher, 2004) we may now be able to predict that some international students from India will likely require additional guidance to develop skills for applied learning. This, in turn may cause a delay in the student becoming a self-directed learner, since they come from a past education experience where options on how to learn something or the opportunity to apply knowledge may have been limited. As “received knowers” international students we may be able to predict that international students from India may be inclined to “to assimilate knowledge from external sources as if it were their own” (MacKeracher, 2004) and may be more likely to plagiarize by western academic standards, unintentionally.

A strong teacher-student relationship that is built on trust and respect was identified as important for participants and required to help facilitate learning at the host institution. Lizzio, Dempster and Neumann (2011) connected the relationship students have with their teachers as an important factor for providing them with a sense of

belonging at their school. This in turn, contributes to the student's sense of self and may influence their "willingness to contribute and engage in leadership in their school" (p. 85). By understanding that teachers in India are perceived as a powerful authority of knowledge it may be possible that international students from India, who don't perceive a positive teacher-student bond, may be reluctant to seek out assistance when needed. Similarly, international students from India may also be reluctant to seek out institutional supports if the service or individuals offering assistance is perceived as unfamiliar to them.

## 5.2 Limitations and challenges of the study

Various limitations and challenges were identified throughout the project. First, the study incorporated a small sample size. While small participant numbers are considered acceptable and normal for phenomenology studies, in this situation, I believe that more participants may have provided additional information that may help to describe learning differences from students in different demographic locations within India. While the majority of the descriptions show consistency among the participants, there were also a few differences reported that may be due to the changes in oversight provided by different education Boards that could not be further explored.

A total of 4 students volunteered to participate in the focus groups, and a total of 16 students completed the survey. Lower participant numbers were expected due to an ethical consideration that was made in the project design that excluded the use of class time to complete the survey. Based on this consideration, it was expected that some participants may not have had the time outside of class, interest or simply forgot to complete the survey once they left class. In addition, through my conversations with the

participants, I learned that international students from India may not be motivated to complete tasks that are not directly related to their marks. In contrast, participants who volunteered their time to participate in the focus group were eager to tell their stories and thanked me for giving them the opportunity to do so. The kind remarks from the participants showed how much they valued the opportunity to have their voice heard on a topic they were clearly passionate about discussing. Due to the scope of the project, I limited the number of class sections that were invited to participate. Limiting the project to four sections may have missed other students who might have been interested in participating but were not provided the opportunity. Therefore, inviting more course sections may have provided a larger number of students who were interested in participating in the project.

Following the initial class visits in week 1, I only had email contact with students to remind them about the project. Based on the importance of the bond described by the participants, their lack of familiarity with me, especially for the course section that I did not have the opportunity to meet personally, may have caused students to be unsure about participating in the project. Further, based on descriptions provided by participants, I now understand that it may be possible that students felt hesitant or even uncomfortable to ask questions about the project, especially for the section who only received email communication from me. Although multiple emails were sent in attempt to contact the section instructor, no reply was received. I fully understand and appreciate the fact that inviting someone into a class does take planning and possibly time away from their lecture and may impact the flow of the daily lesson. I also realized that situations such as this can occur in research, and I felt that despite this, I was able to

continue the project and treat all four sections the same, aside from the initial class visit. I do however also believe that the lack of the class visit may have negatively impacted participation in this project.

Another challenge that I experienced in this project was having to change a planned focus group into an interview. This change was required because two participants who were in the second focus group withdrew. Based on my conversations with the participant, I don't believe this delay caused any impact on the results, and the participant was so happy to have the opportunity to participate that he was easily able and willing to reschedule the interview. After reviewing the transcripts, responses to the questions were consistent between the focus group participants and the participant who was interviewed. Further, the participant was clearly able to recall his experiences which he was able to articulate to me. Based on this, while I do not have reason to believe that the slight delay in the scheduling of the interview had any impact on the descriptions provided by the participant, I also do not have a method to assess the impact of the new learning environment on the participant's recollection of past learning experiences.

Keeping the focus group on track was not easy! It was clear from speaking with the participants that they were passionate and interested to tell their stories. They wanted everyone to know and understand their past learning experiences. Due to this, we sometimes went in different directions with the conversation. In addition, it was also difficult to ensure that each participant has a voice in a focus group. I noticed a big difference with this between the focus group and interview. In the focus group, the conversation seems to be more dominated by one of the participants, and I noticed that

one participant was very quiet. While I attempted to ask this participant for his thoughts, his responses were mostly a few words long and he seemed to rely more on what was being said by the other participants, and would agree with them. Possibly interviews may be a better approach for this type of work, or conducting the interview first followed by a focus group where participants can share and compare their experiences.

### 5.3 Recommendations for future practice

Data from the survey demonstrate the great demographic, linguistic, and cultural diversity that exists in India. Based on this, understanding that each city, town, or village in India may have differences in their education practices, this information may be used as a starting point for the development of a database that attempts to research and track past learning experiences for International students from India based on demographic location. Over time, we may begin to see trends emerging through the data base that may be used to help design facilitation strategies and student supports. This approach is consistent with the literature (Ninnes et al., 1999) that reports India as having great diversity in culture, language, religion, and education.

The focus group/interview provided an opportunity to have an in-depth conversation with participants about their past senior secondary learning experiences in India. The conversations revealed new detailed information that was not initially identified from the survey. During the conversations, students appeared relaxed and comfortable describing their past learning experiences. Further, participants informed me that they were very happy with their learning experience at the host institution, although limited to a few short weeks at the time of the discussions. Changes between the past and present learning environments were described as generally positive.

Participants indicated that they enjoyed the use of technology in learning and especially having access to materials posted on the online blackboard. Assessments that included multiple-choice questions were considered easy and consistent with the participants' past experience with assessments from India. A challenge with assignments that was described may be related more to the general understanding about the nature of assignments, including a lack of understanding about the weight they carry in the course. Based on the descriptions provided by the participants, international students from India may benefit from being provided with a more detailed explanation about the role of assignments and the reasons for the weight they carry in the course.

Results from this project were consistent with the literature and show that students from India may not have strong academic writing skills and may experience challenges with correctly following and using approved styles such as APA. By understanding the participants past learning experience, it is clear that the practice of memorizing and reproducing exact information that has been provided by teachers or from a textbook may be based on the requirements that are needed to successfully pass the twelfth standard Board exams. Essentially teaching to the exam. Since exams may be graded by teachers in a different school and possibly even a different state, it may be reasonable to expect that consistency with respect to identifying a single correct answer may be required and beneficial.

Therefore, answers to exam questions that are provided by students appear to be standardized such that each student is expected to write the same correct answer. Since the focus appears to be on the correctness of the answer provided, relative to the textbook source, proper academic referencing methods and procedures may be

overlooked and perhaps not taught because it would not be required for the type of work expected on the twelfth standard Board exam. Based on this, international students from India may benefit from learning about proper referencing method(s) commonly used in a post-secondary setting. Further, understanding that international students from India are used to learning through practice, providing the opportunity to practice by “doing” may be beneficial for teaching students about referencing expectations by leveraging strengths they have from their past learning experiences. In this case, a face-to-face workshop scheduled during the orientation week prior to the start of the academic semester, that allows international students from India the opportunity to experience and become comfortable with a new informal teacher-student bond may help facilitate this learning.

Language challenges experienced by international students that are commonly reported in the literature may be related more towards different interpretations of a common word, as compared with a general lack of understand of the English language. Further, according to Delpit and Dowdy (2002), students may be exposed to three different types of English which they referred to as academic, home, and work or professional. Participants in the focus group and interview were clearly able to communicate their thoughts in English and did not appear to have any difficulties understanding or responding to questions that were asked. Evaluation of the themes showed a difference in the interpretation of the word “assignment” and “notes”. From the descriptions, it was clear that how participants understood and associated tasks with these terms was when compared with the intended meaning from the context of the college environment. Macgregor and Folinazzo (2018) identified that “opportunities for

language development within the curriculum” (p. 323) should be provided. Therefore, language challenges experienced by the participants may be due to differences in the academic language used at the host institution relative to the type of English previously learned. Therefore, looking at the past learning experiences of international students from India, if we apply the work of Depit and Dowdy (2002), further exploration into the use of English as a medium of instruction in the K-12 years in India may be beneficial to develop a clear understanding of how academic English was used and when it was incorporated into the curriculum. Based on this, it may be helpful for international students from India to develop an understanding for what specific terms may mean in different cultural contexts for both generally acceptable terms (such as assignment or notes) and for program-specific terms they are likely to encounter. Clear expectations that are provided in writing at the start of the course may help eliminate confusion and facilitate learning. Further, since a strong teacher-student bond was shown to positively influence learning, students may also benefit from learning about institutional services designed to support their learning from their instructor. This approach may help increase the students’ willingness to participate in institutional services when we use our knowledge of past experiences to help strengthen the teacher-student bond at the host institution.

Since participating in the competitive exams was technically optional, not taking into account socio-cultural expectations, it may be anticipated and reasonable to expect that students who have completed twelfth standard in India and have not written the competitive exams may have challenges with answering applied-type questions in any format. Participants indicated that the type of questions and learning required to

successfully pass the twelfth standard Board exams was different as compared to the preparation required for the competitive exams. Further, participants indicated that a deep understanding of concepts and being able to apply concepts to select the best answer in a multiple-choice format were skills required to pass the competitive exam. In comparison, students who have completed twelfth standard in India and who have written a competitive exam may be more comfortable with applied-type questions in a multiple-choice format. However, these students may still require support with learning how to answer applied-type questions that follow a different format (i.e., short answer, long answer) that includes learning how to respond to a question or explain a concept in their own words.

Nayak and Venkatraman (2010) reported that international students often have to “unlearn the academic culture of institutions where they come from, and to learn new academic culture of institutions where they have travelled to study” (p. 2). Based on this, consistent with principles of adult learning, providing an opportunity to practice during the class without the fear of evaluation provide an opportunity to learn how to respond to applied questions. More importantly, this strategy may also teach students how to formulate a response in their own words. Providing this opportunity in a non-threatening environment is consistent with principles of adult learning described by Mackeracher (2004). The non-threatening environment is important to encourage learning such that international students from India feel safe to practice this critical skill, make mistake, and be rewarded for their efforts.

In conclusion, while the number of international students from India enrolled at post-secondary institutions in Canada continues to increase, learning challenges

experienced by these students in a new academic environment remain. Results from this project show that international students from India may not have what we initially perceive as a skills deficit when they arrive at the host institution. For example, it is commonly said that international students do not know how to answer applied questions, which is often discovered after the first assessment in a course. By understanding past learning experiences, this statement may now be modified to state that we don't expect international students from India to understand how to answer applied questions.

According to Burch (2008) new “strategies for dealing with international students need to be developed” (p. 13). Understanding past learning experiences therefore may help guide institutions to adopt a proactive approach to mitigate challenges that may now be anticipated based on the students' past learning experiences. This approach, when grounded in key principles of adult learning, may help explain some of the differences observed by understanding how international students from India “learned to learn”.

Currently an understanding of how international students from India "learned to learn" from the student's perspective, that is analyzed through the lens of adult learning is limited. We may therefore consider future research that explores past learning experiences of all international students as examined through the lens of adult learning, a different approach for understanding how these students may adapt to a new academic environment at the host institution.

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## Appendix A Informed Consent Information Form – Demographic Survey

### **What Is This About?**

You are invited to take part in a research project that will explore the past learning experiences of international students from India, prior to their arrival at an Ontario college. This project has been designed in accordance with policies from the University of New Brunswick, for research involving humans. This project involves two parts. In the first part you are invited to participate in a short survey that will ask you information about yourself (*i.e.*, your age, the highest level of education you completed prior to starting at the Ontario college, what part of India do you reside in). For the second part of this project, you are invited to consider participating in a focus group, that will allow you to share learning experiences you had from your senior secondary or post secondary schooling prior to your arrival at the Ontario college. A separate information sheet and informed consent will be provided outlining information for the focus groups.

### **Who is involved?**

The project is being conducted by Sheela Iyer, Master of Adult Education student, under the supervision of Amanda Benjamin, PhD and Associate Professor in the Faculty of Education, at the University of New Brunswick. Local supervision and support for this project is provided by [insert name and title] at the Ontario college.

### **What will I have to do?**

You are invited to participate in a short demographic survey that will ask you questions about your country of origin, and how you learned in your senior secondary or post secondary school in India. Participation in the survey is voluntary. The survey will be available through the Survey Monkey online platform for the first 3-weeks of the semester. The last day to consider participating in the survey is [insert date]. If you decide to participate, you may access the survey at anytime that is convenient to you within the first 3-weeks of the semester. Most of the questions on the survey are multiple choice, which will allow you to complete it within a short amount of time (approximately 10 minutes).

### **Why should I participate?**

By completing the survey, you will be providing important information that will help us to better understand the past learning experiences of international students from India. This information you may provide is very special because it cannot come from books or the internet. It is a reflection of your experiences with your learning from India.

### **How do you keep the information I provide confidential?**

The survey for this project will be available through the Survey Monkey website. The headquarters for Survey Monkey are located in the USA and as such is subject to U.S. laws, in particular, the US Patriot Act which allows authorities access to the records of internet service providers. If you choose to participate in the survey, you understand that your responses to the survey questions will be stored and accessed in the USA. Please be aware that the use of the Internet to communicate personal information carries risks that can lead to breach of confidentiality and loss of anonymity, e.g. through unintended

receipt, tracking or interception by third parties. As well, email programs and web browsers normally store copies of received and sent documents, thus it is recommended that these copies are erased. The security and privacy policy for Survey Monkey can be found at the following links: <https://www.surveymonkey.com/mp/legal/security/>  
<https://www.surveymonkey.com/mp/legal/privacy-policy/>

The data generated from the survey will be kept confidential and will not be accessible to anyone other myself. The data will be summarized, tabulated, and looked at thematically for the report and no identifying information will be reported. You will not be asked to provide any data on the survey that will connect the data to you, such as your name. Data from the survey will be stored electronically, on my personal laptop that is password protected, and stored in a secure location. The data will be kept for 7-years after which time, it will be destroyed.

### **What are my rights as a participant in this project?**

Participation in the survey is anonymous, completely voluntary, and is anticipated to require approximately 20 minutes of your time; however, you may take as long as you need. If at any time you do not feel comfortable to continue, you are free to withdraw without adverse consequences. You can also decide not to answer a specific item and continue with the survey. If you decide to withdraw from the survey, your responses will not be used in the tabulation of the data, and will be destroyed.

### **Ethics Approval**

This project has been reviewed by the Research Ethics Board, University of New Brunswick (REB #), and the Ontario college (REB#).

### **What if I have concerns?**

Any questions about participation in this project, or a request to withdraw from this project may be directed to Sheela Iyer [sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca), or my supervisor Amanda Benjamin at [ajb@unb.ca](mailto:ajb@unb.ca). If you wish to speak with someone not directly involved with this project, you may contact Dr. Ellen Rose, Associate Dean, Graduate Programs at [erose@unb.ca](mailto:erose@unb.ca).

### **Acknowledgement and Informed Consent (Introduction page on the survey)**

Clicking on the “agree” button below indicates that:

1. You are an international student who has studied in a senior secondary and/or post-secondary school in India.
2. You live in Canada, are 18 years of age or older and can legally consent to participate in the demographic survey.
3. You have read and understood the information provided in this document.
4. You have had your questions answered
5. You voluntarily agree to participate in the survey.

If you do not wish to participate in the project, please decline participation by clicking on the “disagree” button

- agree
- disagree

### Acknowledgement

The Principle Investigator for this project, Sheela Iyer, is currently employed as a part-time instructor and a field practicum coordinator for the Veterinary Technician program, in the Faculty of Applied Health and Community Studies (FAHCS), at [insert Ontario institution name]. While Sheela is employed at [insert institution name], it is very unlikely that she will teach students who decide to participate in this project, who are enrolled in a program within the Faculty of Applied Science and Technology (FAST). In the event that a student who has participated in this project is enrolled in a class that Sheela teaches in the 2020/2021 or 2021/2022 academic year, she will request permission from the Associate Dean of FAHCS to have another instructor be assigned to complete the course evaluations for that student. In addition, it is unlikely that Sheela will be contracted to teach in the Applied Computing Program (Faculty of Applied Science and Technology) from 2020-2022, and therefore there is low probability that she will know, or have any influence over the participants academic standing in the PROG10082 course, or any other course in the Applied Computing program.

## Appendix B Informed Consent Information Form – Participation in Focus Groups

### **Describing the Past Learning Experiences of International Students from India**

#### **What is this project about?**

You are invited to take part in a research project that will explore the past learning experiences of international students from India, prior to their arrival at an Ontario college. This project has been designed in accordance with policies from the University of New Brunswick, for research involving humans. This project involves two parts. In the first part, you may have completed a short survey that asked you about yourself (*i.e.*, your age, the highest level of education you completed prior to starting at the Ontario college, what part of India do you reside in). Now, you are invited to consider participating in a focus group, that will give you the opportunity to share you past learning experiences with me.

#### **Who is involved?**

The project is being conducted by Sheela Iyer ([sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca)), Master of Adult Education student, under the supervision of Amanda Benjamin ([ajb@unb.ca](mailto:ajb@unb.ca)), PhD and Associate Professor in the Faculty of Education, at the University of New Brunswick. Local supervision and support for this project is provided by [insert name and title] at the Ontario college.

#### **What will I have to do?**

Participation in a focus group is voluntary. A maximum of 10 students will be selected for the focus groups on a first-come basis. To participate in the focus group, you must be an international student from India who has a valid study permit. I will also need to know your highest level of education that you completed prior to coming to [insert college name] (*i.e.*, senior secondary or college/university). Students who volunteer to participate will be divided into one of two focus groups. A maximum of 5 students will be assigned to each group. Each group may last a **MAXIMUM** of 2-hours in order to provide each participant with enough time to share their experiences with the group. The focus groups will be conducted in English. There is no work or preparation required prior to participating in the focus group. The focus groups will be scheduled during weeks 4 and/or 5 of the semester, based on the schedules of the participants, at a time that is convenient for everyone.

If you would like to participate in a focus group, please sign the last page of this information form titled Selection Criteria for Focus Groups (page 7 of this document) and return it to me electronically or by submitting into my mailbox outside of H150, by the end of week 3 [insert date]. This will allow me to schedule the focus group sessions far away from midterm week, and before reading break. A signed copy of this form should be sent to [sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca)

**What will I get for participating?**

Snacks will be provided during each focus group session.

**Why should I participate?**

The information that you provide is valuable as it will provide understanding about your previous learning experiences from India.

**How do you keep the information I provide confidential?**

For the focus groups, pseudonyms (i.e., fake names) will be used to ensure confidentiality of the information you provide in the group discussion sessions and in the transcript. Students will be asked to select a pseudonym for themselves prior to the start of the group discussions, which will be written on an index card that will be used to identify them during the discussions. Participants are expected and consent to keeping what is shared in the focus groups confidential.

The information discussed during the focus groups will be transcribed verbatim and will be reported using your pseudonyms. After the focus group conversations have been transcribed, the recordings will be permanently deleted. Copies of the transcriptions will be maintained on my personal laptop, password protected and stored in a secure location, for 7-years, and will be destroyed thereafter. Confidentiality will be protected as much as possible, however, since participants are selected from the same program and course, there is a high probability that students participating in the focus groups may recognize and know each other. Participants will receive a reminder about confidentiality expectations, prior to the start of the focus group sessions from the Principle Investigator.

Recognizing that participants may go home for the summer, it may not be possible, within the time constraints of this project, to have participants review the transcripts. However, should a participant decide they wish to see the transcripts from the focus groups, it will be made available to them for review at the college. A meeting will be scheduled in consultation with the participant to review their transcript.

**What are my rights as a participant in this project?**

Participation in the focus groups is completely voluntary. If at any time you do not feel comfortable with continuing, you are free to leave the group without adverse consequences. You can also decide not to answer a guiding question. Since conversations may be interconnected within the group, it may not be possible to exclude your contribution from the results. However, should this occur, you will be invited to consider granting permission for your descriptions to be used until you voluntarily withdrew from the study, in the final project report. Participation in the focus group will require a small amount of your time, approximately up to a maximum of 2-hours, depending on the number of participants in each group. A time for the focus group will be determined based on the class schedules of the group, with attempts to identify a mutually convenient time for all participants, outside of regular class time. In recognition of your time and willingness to participate, snacks will be provided during each session

### **Ethics Approval**

This project has been reviewed by the Research Ethics Board, University of New Brunswick (REB #), and the Ontario college (REB#).

### **What if I have concerns?**

Any questions about participation in this project, or a request to withdraw from this project may be directed to Sheela Iyer [sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca), or my supervisors Amanda Benjamin at [ajb@unb.ca](mailto:ajb@unb.ca), and/or [insert name and email address]. If you wish to speak with someone not directly involved with this project, you may contact Dr. Ellen Rose, Associate Dean, Graduate Programs at [erose@unb.ca](mailto:erose@unb.ca).

### **Acknowledgement**

The Principle Investigator for this project, Sheela Iyer, is currently employed as a part-time instructor and a field practicum coordinator for the Veterinary Technician program, in the Faculty of Applied Health and Community Studies (FAHCS), at [insert Ontario institution name]. While Sheela is employed at [insert institution name], it is very unlikely that she will teach students who decide to participate in this project, who are enrolled in a program within the Faculty of Applied Science and Technology (FAST). In the event that a student who has participated in this project is enrolled in a class that Sheela teaches in the 2020/2021 or 2021/2022 academic year, she will request permission from the Associate Dean of FAHCS to have another instructor be assigned to complete the course evaluations for that student. In addition, it is unlikely that Sheela will be contracted to teach in the Applied Computing Program (Faculty of Applied Science and Technology) from 2020-2022, and therefore there is low probability that she will know, or have any influence over the participants academic standing in the PROG10082 course, or any other course in the Applied Computing program.

### **Informed Consent to Participate in a Focus Group (will be signed at the start of the focus group)**

**By providing your contact information below, you are volunteering to participate in a focus group, and agree with the 5 consent statements listed below:**

1. I understand that my answers to the selection criteria questions listed above are needed for me to be able to participate in a focus group. I also understand that participation in the focus groups is voluntary and not guaranteed because only a maximum of 10 students will be selected.
2. I confirm that I have read and understood the information provided in this information sheet, and have had my questions answered.
3. I would like to volunteer my time to participate in a focus group.
4. I understand that there may be other students who know me personally, or may be in my class/program in the same focus group.
5. I agree to keep what is shared by the participants in the focus groups confidential

Participant's name (print): \_\_\_\_\_

Participant's signature & Date: \_\_\_\_\_

Participant's school email address: \_\_\_\_\_

### **Selection Criteria for Focus Groups**

**PLEASE RETURN THIS PAGE ELECTRONICALLY TO SHEELA IYER at [sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca) OR SUBMIT INTO MY MAILBOX OUTSIDE OF H150.** This information will be kept confidential and will only be used by Sheela Iyer to select participants for the focus groups.

**NAME:**

\_\_\_\_\_

**SCHOOL EMAIL ADDRESS:**

\_\_\_\_\_

1.  I confirm that I live in Canada and I am 18 years or older, and I am at an age where I can legally consent to participate in a focus group.
2. To which gender identity do you most identify?
  - a. Male
  - b. Female
  - c. Other \_\_\_\_\_
3. Please tell me the name of the village, town, or city where you lived in India
 

\_\_\_\_\_
4. Would your village, town, or city in your country of origin be considered rural (i.e. a small village) or urban (i.e. a large city)? CIRCLE ONE
  - d. Rural
  - e. Urban
  - f. I don't know
5. What is the **highest** level of education you completed, prior to starting the Applied Computing program at this Ontario college?
  - g. Senior secondary (Grade 12)
  - h. Post-secondary (anything after grade 12).

### Appendix C Initial Student Recruitment Statement for Class Visit/Posting

Good morning/afternoon everyone. My name is Sheela Iyer and I am a graduate student at the University of New Brunswick, and a part-time instructor in the Veterinary Technician program at [insert name of Ontario institution]. I am here today to invite you to consider participating in my project that seeks to understand and share your experiences with prior learning from India before attending [insert college name]. The project aims to address the possible gaps of knowledge about experiences of students who previously learned in India.

The project is comprised of two parts, an anonymous short survey and focus groups (these are groups discussions about your learning experiences). Participation in the project is completely voluntary and there are no negative consequences for deciding not to participate. You may also decide to withdraw your participation at anytime. The online survey will be available from today, and can be completed at a time that is convenient for you, up until the end of week 3 [insert date]. The survey can be access at on the Survey Monkey website using the link [insert website link]. The focus group, will be scheduled outside of your classes at a time that is convenient for all participants. The focus groups will take place in week 4 and/or 5. If you would like to volunteer to participate in a focus group, please complete the last page of the Focus Group Information Sheet and return it to me either electronically (sheela.iyer@unb.ca), or by submitting your form into my mailbox outside of H150.

Information pertaining to this project has been provided to you for the survey and focus groups. After reviewing the information, you may contact me if you have any questions or concerns about this project. You may also contact my supervisor at UNB, Amanda Benjamin (ajb@unb.ca). The information provided today in this class visit will also be sent to you electronically using your college email address. This project has been reviewed by the UNB REB and the {insert college name} REB.

Thank you for your time. Enjoy your first week at [insert college name] and I hope you will consider participating in this project.

#### Week 2 Follow Up Email for Students

Hello everyone,

My name is Sheela Iyer, and I am a graduate student at the University of New Brunswick. I am sending out this email to remind you about the project that I am conducting that seeks to understand and share your experiences with prior learning from India before attending [insert college name]. As a reminder, participation in this project is completely voluntary and there is no negative consequence for deciding not to participate. The survey for this project is available on the Survey Monkey website at [insert link] and will be available for two more weeks. The Information sheets for this project that explain the survey and focus groups are attached. Please contact me ([sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca)), or my supervisor Amanda Benjamin (ajb@unb.ca) if you have any questions or concerns.

#### Week 3 Email for Students

Hello everyone,

My name is Sheela Iyer, and I am a graduate student at the University of New Brunswick. I am sending out this email to remind you about the project that I am conducting that seeks to understand and share your experiences with prior learning from India before attending [insert college name]. As a reminder, participation in this project is completely voluntary and there is no negative consequence for deciding not to participate. This is the LAST WEEK to consider volunteering to participate in the project. Both the survey and enrollment into a focus group will close on [insert date and time].

If you would like to participate in the survey, please use this link to access the survey [insert link]. If you would like to participate in the focus group, please sign the last page of the information sheet (attached) and return it to me at [sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca), or submit it into my mailbox outside H150. The information sheet for both the survey and focus groups are attached to this email. Thank you for taking the time to consider participating in this project. If you have any questions or concerns, please feel free to email myself ([sheela.iyer@unb.ca](mailto:sheela.iyer@unb.ca)) or my supervisor, Amanda Benjamin ([ajb@unb.ca](mailto:ajb@unb.ca)).

## Appendix D Demographic Survey Questions

Informed Consent: Thank you for participating in my survey. Your feedback is important. Clicking on the “agree” button below indicates that:

Informed Consent

- you live in Canada and are 18 years of age or older.
- you have read and understood the information provided in the Information Sheet that was distributed in class and posted online.
- you have had your questions answered, and agree to participate in the survey.

If you do not wish to participate in the project, please decline participation by clicking on the “disagree” button.

- agree
- disagree

1. To which gender identity do you most identify?  
\_\_\_\_\_
2. What country are you from?
  - a. India
  - b. Canada
  - c. Other: please specify \_\_\_\_\_
  - d. Prefer not to answer
3. Please tell me the name of the village, town, or city where you live in India.  
\_\_\_\_\_
4. Would your village, town, or city in India be considered rural (i.e. a small village) or urban (i.e. a large city)?
  - a. Rural
  - b. Urban
  - c. I don't know
  - d. Prefer not to answer
5. On what month and year did you arrive in Canada  
MM/DD/YYYY  
\_\_\_\_\_
6. As of the date of this survey, which of the following statements most accurately describes your legal status in Canada?
  - a. I have a study permit to attend this Ontario College
  - b. I am a permanent resident of Canada
  - c. I am a landed immigrant in Canada
  - d. I am a Canadian citizen
  - e. Prefer not to answer

7. What is the **highest** level of education you completed, prior to starting the Applied Computing program at this Ontario college?
  - a. Senior secondary (Grade 12)
  - b. Post-secondary (anything after grade 12).
  - c. Prefer not to answer
  
8. Have you ever attended another college and/or university in Canada, prior to attending this Ontario college?
  - a. Yes
  - b. No
  - c. Prefer not to answer
  
9. At your senior secondary or post-secondary school in India, what language was used most often by your teachers during lectures and lessons in your highest level of education
  - a. English
  - b. Hindi
  - c. Other: Please specify
  - d. Prefer not to answer
  
10. At your senior secondary or post-secondary school in India, what language did you use the most for talking to your friends?
  - a. Hindi
  - b. English
  - c. Other (please specify the language used)
  - d. Prefer not to answer
  
11. In India, what language did you use the most to talk to your family?
  - a. Hindi
  - b. English
  - c. Other (please specify the language used)
  - d. Prefer not to answer
  
12. At your senior secondary or post-secondary school in India, what language was used to complete written course work (i.e., assignments, quizzes, tests and exams)?
  - a. Hindi
  - b. English
  - c. Other: please specify
  - d. Prefer not to answer
  
13. In question 12 (above), the language used to complete written course work at your senior secondary or post secondary school in India was determined by
  - a. My teacher
  - b. Me
  - c. Prefer not to answer

14. At your senior secondary or post-secondary school in India, what language was used for in class discussions?
- Hindi
  - English
  - I don't know what an in-class discussion is
  - We never had discussions in class as a part of a lesson
  - Other (please specify the dialect used)
  - Prefer not to answer
15. In India, what language did you use the most for texting friends?
- English
  - Hindi
  - I did not text with my friends in India
  - Other: please specify
  - Prefer not to answer
16. Since arriving in Canada, what language do you use the most when speaking with your friends?
- English
  - Hindi
  - Other: please specify
  - Prefer not to answer
17. Since arriving in Canada, what language do you use the most for texting?
- English
  - Hindi
  - Other: please specify
  - Prefer not to answer

## Appendix E Semi-Structured Focus Group Questions

1. To identify each participant in the focus groups:
  - a. Please tell us your name
  - b. Would you like to select a pseudonym for yourself that will be used to replace your real name in the transcripts of the discussions? Students who decide not to select a pseudonym will have one assigned to them by the Principle Investigator
  - c. Please tell us where you are from
  - d. Please tell us when you came to Canada
  - e. Please tell us what was the highest level of education you completed prior to starting at this Ontario college.
  
2. Potential focus group questions:
  - a. Could you please tell us what it was like to attend and learn in a senior secondary/post secondary school in India?
    - i. Can you describe a typical day at school?
  
  - b. What did you like most about your senior secondary/post secondary school in India?
  
  - c. What did you find the most challenging about your senior secondary/post secondary school in India?
  
  - d. Please tell us about your favorite class from your senior secondary/post secondary experience from India?
    - i. What was it?
    - ii. What did you like most about it?
  
  - e. What was your least favorite class from your senior secondary/post secondary experiences from India?
    - i. What was it?
    - ii. What did you like least about it?
  
  - f. Can you tell us about how you relate to your teachers?
    - i. How did you address them?
    - ii. How did they organize and run your classes?
  
  - g. Is your learning experience at this post-secondary college similar to your experiences with learning from India?
  - h. Can you describe for us how your learning experience at [insert Ontario institution name] are similar to the experiences you had with learning in India?

- i. Is your learning experience at this post-secondary college different from your learning experience in India?
- j. Can you describe for us how your learning experience at [insert Ontario institution name] are different to the experiences you had with learning in India?
- k. What would you want your professors at this post-secondary college to know about how you like to learn?

Appendix F Sound Recordings Consent Form

**Title of Research Project: Describing the Past Learning Experiences of International Students From India**

**Investigators:**

Principle Investigator: Sheela Iyer

Co-Investigators: Dr. Amanda Benjamin (Supervisor-UNB); Dr. Mardy Frazer (Supervisor-host institution)

Partnering Agency: N/A

I hereby consent to be taped during participation in this research project **Describing the Past Learning Experiences of International Students From India**. The interviewers will listen to the tapes and they will be typed out word for word. We are doing this so that the research team will be able to listen to the tape again and read what was said in the interview, so that we can pull out themes that come out of the interviews. I understand that I am free not to participate in this part of the project and that if I agree to participate, I am free to withdraw from this part of the project AT ANY TIME and that my data will be excluded.

\_\_\_\_\_  
Name

The Person & telephone number of who may be contacted about this project:  
Principle Investigator: Sheela Iyer

\_\_\_\_\_  
Signature (if 16 yrs.)

Sheela Iyer  
Name of Interviewer

Date: \_\_\_\_\_

905-459-7533 X 32106\_  
Telephone number of Interviewer

Sheela Iyer\_\_\_\_\_  
Name of person who obtained consent

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

In addition, I give permission for this tape to be used for:

- 1. Other research projects on the same topic
- 2. Not to be used for anything else.

In giving permission for the use of the tape beyond the current research, I have been offered the opportunity to hear the tapes and I understand that I am free to withdraw my permission for other uses of the tapes at any time.

\_\_\_\_\_  
Name

The Person who may be contacted  
about the research is:  
Principal Investigator: Sheela Iyer

\_\_\_\_\_  
Signature (if 16 yrs.)

Sheela Iyer  
Name of Interviewer

\_\_\_\_\_  
Date

905-459-7533  
Telephone number of Interviewer

Sheela Iyer \_\_\_\_\_  
Name of person who obtained consent

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## DESCRIBING PAST LEARNING EXPERIENCES

### CURRICULUM VITAE

Candidate's full name: Sheela Iyer

Universities attended: University of New Brunswick 2018-2020, MEd (Adult Education)-conferred Oct 2020  
Mercy College, 1999-2000, B.Sc. (Veterinary Technology)  
St. Lawrence College 1996-1999, Advanced Diploma Veterinary Technology  
Carleton University, 1993-1996

Publications: None

Conference Presentations: None