

Students' Perceptions of Learner Agency: A Phenomenographic Inquiry into  
the Lived Learning Experiences of High School Students

A Dissertation Presented

by

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## Abstract

Learner agency is an important concept in current education. This research describes the perceptions high school seniors have about their learning experiences. Educational research indicates students' self-regulation being an important factor in academic success, yet many educational practices still rely on teacher-centered instructional models. Supporting learner agency could improve the quality of students' engagement in their learning process, and help students become ready for the requirements of living in 21<sup>st</sup> Century. In this phenomenographic inquiry into students' perceptions of their learner agency nine high school seniors were interviewed about their engagement and learning experiences. The analysis yielded an outcome space of four qualitatively different ways of perceiving learner agency 1. *detachment from learning*, 2. *belonging to the school community*, 3. *synergy of learning ownership*, and 4, *unbound ubiquitous learning*. The outcome space was organized into a visual conceptualization of the hierarchical relationship between intentionality, agency, and quality of learning. Based on the findings of this research, the recommendations for educational policy and practice include crediting informal learning, embedding choices into learning experiences, and supporting both students' and teachers' individual learning process.

*Keywords:* learner agency, learning environment, negative agency, phenomenography, learner-centered practices, deeper learning, quality of engagement, learning process.

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## Chapter One

### The Intriguing Diversity of Learning Experiences

I never wanted to be a teacher. What led me to study learning and education was taking care of my own children and recognizing their diverse learning preferences. Signing up to study education and psychology in Open University was the first step on a path that eventually took me abroad to teach and study in other countries. My studies at the University of Jyväskylä were an eye-opening experience that led me to understand the subjectivity of learning, and to value the situationality and contextuality of education. It is a great mystery: while being exposed to the same content and instruction, every individual student has a different take-away we call learning.

In Chapter One I will outline the problem of practice regarding how seniors at Port Angeles High School (PAHS) perceive their intentional learning engagement. The central research question “What are students’ perceptions of their learning experiences” guides the discussion of how human agency can help to describe the lived learning experiences of high school seniors. Important definitions are explained, and the theoretical framework of learner agency is used to examine the choices students make in their everyday engagement. Chapter Two contains recent research showing consensus on the premise of meaningful learning experiences contributing to 21<sup>st</sup> Century learning skills in contemporary information infrastructure. The role of the core properties of learner agency in deep and self-regulated learning is discussed in the three strands of literature, emphasizing the importance of intentional engagement, subjectivity and shared classroom experiences as means for deeper learning. Chapter Three has an outline of phenomenography as a research methodology for studying deep learning, as well as the justification of choices for data collection and analysis. It also describes the recruitment and protection of participants and the means for securing the data, as well as the steps taken to formulate the outcome space. Chapter Four provides a description of the participants, the phenomenographic analysis of the data, and brings the students’ perceptions of learner agency to the foreground of this thesis. Chapter Five connects the results into the theoretical framework and literature on learner agency and offers conclusions, discussion, and recommendations for future research and practice. The limitations of this study are discussed before the description of personal growth as a scholar-practitioner and the ways of using this data in further scholarly activities.

### Introduction

Learning is a fundamental phenomenon in our lives, everyone has experienced it. Researching learning is complicated because there is no single variable to pinpoint as a measurement for it to have happened. Even providing a comprehensive definition for learning is hard because each experience is extremely individual, situational, and contextual. Some things are granted, though. Learning includes a change, an update in knowledge structure

(Barron et al., 2015). This change does not happen in a vacuum but is supported with interactions, both socially and physiologically. From the neurological viewpoint, “learning changes the structure of the brain” (Bransford, Brown, & Cocking, 2000, p. 103), thus being an essential part of human development. Measuring learning outcome solely as information acquired is inaccurate because of the focus being on the end state of activity instead of the change in knowledge or skill. Learning is subjective and requires both acquisition and elaboration (Illeris, 2003).

The use of self-regulated and lifelong learning approaches has been identified as major contributor for increasing meaningfulness of schoolwork and deeper learning in the classroom (Edwards & D'arcy, 2004; Reed, 2008; Ferla, Valcke, & Cai, 2009; Boekaerts, 2011; Lüftenegger et al., 2012). Self-regulation refers to attention, organization, planning and control strategies, and to the degree of freedom students are provided with to practice these skills. Life-long learning as a concept extends the knowledge acquisition process to cover the whole human lifespan – an individual process that begins before birth, and extends beyond the graduation ceremony. Intentional individual participation in learning activities denotes student engagement in the classroom (Boekaerts, 2016; Appleton, Christenson, & Furlong, 2008). Therefore, focusing this phenomenographic study on learner agency and students’ self-regulation in the classroom environment may help teachers improve students’ learning outcomes (Bandura, 1986, 1999, 2006; Lave & Wenger, 1991; Olson, 2003; Biesta & Tedder, 2006; Wang & Holcombe, 2010; Rajala, Hilppö, & Lipponen, 2012; Mercer, 2012).

Phenomenography as a research method focuses on the participants’ collective perceptions of the phenomenon, which was described by Marton (1981) as the follows: “Phenomenographers categorize their subjects' descriptions, and these categorizations are the primary outcomes of phenomenographic research” (p. 33). Phenomenography originated in Sweden, when researchers Marton and Säljö (1976) designed an inquiry focused on students’ conceptions of learning. The research was “an attempt to scrutinize and understand human learning by focussing on what people are in fact doing in situated practices and when studying” (Säljö, 1997, p. 188). The qualitative differences between deep and surface learning were the results of this original phenomenographic inquiry, laying the foundation for researching students’ conceptions of their own learning experiences (Larsson & Holmström, 2007). Students described perceptions of different levels of complexity about learning, ranging from external involvement to internal transformation (Marton & Säljö, 1976). The second-order perspective used in phenomenography (Marton, 1981) focuses on describing the different ways people perceive their learning experiences, instead of aiming to research the phenomenon itself. This relational nature of phenomenography emphasizes students’ approaches to learning, which, according to Entwistle (1997), places it in the triangle consisting of “the student, the content of learning material and the overall learning environment” (p. 129). Consequently, the definition of learning used in this thesis further accentuates the relational



nature of learning: “an external interaction process between the learner and his or her social, cultural or material environment, and an internal psychological process of acquisition and elaboration” (Illeris, 2003, p. 298). Inquiring into students’ perceptions about their learning experiences might help researchers and teachers to better support students and improve educational outcomes. As an empirical approach, phenomenography fits this current study where perceptions about learner agency are researched within a population of high school seniors.

Emphasizing the importance of students’ perceptions of learning in the relational triangle of self, content, and environment is a fundamental theme throughout this thesis. To support the subjectivity of perceptions, the attention is directed towards learner-centered practices, which are built on the dialogue between the teacher, the student, and the materials to be learned, emphasizing the collaborative nature of knowledge construction. Moore, McArthur, and Noble-Carr (2008) stress the importance of involving students in research in order to “better understand and respond appropriately to their unique perspectives and experiences” (p. 80). Like agency, also learner-centered education carries the same importance of understanding the individual views and supporting students to actively engage in their own learning. The common denominator between the chosen research approach and agency is the focus on students’ intentional participation, leading to the problem of practice every educator should ask: How do students’ perceive their learning experiences and conceptualize their learner agency?

### **Statement of the Problem**

Learning is a fundamental subjective phenomenon that everyone has experienced. It is the integration of two different processes: the learner’s ongoing external interaction and internal acquisition-elaboration (Illeris, 2003). Humans generally enjoy learning, but they do not necessarily enjoy the experience of being taught. Education is changing to reflect the time. Conner and Sliwka (2014) emphasize the importance of embedding the subjective experiences into research and practice of education by stating that “Internationally, there has been an increased emphasis on *learning* (instead of teaching)” (p. 166, italics and parentheses in the original text). Distinguishing engagement in learning experiences from the educational experience of being taught is essential for understanding the role of learner agency in contemporary education (Lepper, Corpus, & Iyengar, 2005). The difference between the two is subjective participation focusing on students’ intentional learning process and active engagement, instead of emphasizing the objective, externalized experience of being taught (Skinner, Furrer, Marchand, & Kindermann, 2008; Knight, Buckingham Shum, & Littleton, 2014; Skinner, Pitzer, & Steele, 2016). Learner agency is socially situated and influenced by the learning environment (Evans, 2007). Students’ perceptions of learning and agency are shaped

by the structure of classroom context.

The purpose of this study was to understand high school seniors' conceptions of learner agency as expressed in their perceptions of learning experiences. Applying the relational focus of learner agency and a phenomenographic approach this research described the lived learning experiences of high school seniors at PAHS. The individual learning outcomes students have, including their perceptions of classroom experiences, are the foundation of academic achievement. Therefore, it is crucial to understand how students perceive their own learning.

### **Significance of the Research Problem**

A study examining students' perceptions about their learner agency was important for various reasons. Firstly, from the viewpoint of the society, students graduating from high school are not fully prepared for "postsecondary education, the workforce, and civic life in the 21st Century" (Bitter & Loney, 2015, p. 2). Furthermore, students' subjective perceptions of their learning experiences have an effect on their learning engagement and outcomes (Wang & Holcombe, 2010). It is imperative to support students' intentional engagement in classroom. According to American Psychological Association (APA, 2015) "intrinsically motivated task engagement is not only more enjoyable, it is positively related to more enduring learning, achievement, and perceived competence" (p. 16). Engagement is situated in the intersection of students' subjective learning experiences and classroom instruction. Students' engagement in the classroom is the daily actualization of their learning process (Illeris, 2003). However, learning at school is not a simple process, but a tangled and messy one due to the multiple factors contributing to classroom experiences, e.g. perception, interest, motivation, and social context.

Teachers are asked to support students' development into lifelong learners who thrive in continuously changing 21<sup>st</sup> Century societies (Kuit & Fell, 2010). Learning in 21<sup>st</sup> Century is different from learning before, especially because of the increasing speed of new information being created. Students need skills to "effectively seek out, organize and process information from a variety of media" (Kereluik, Mishra, Fahnoe, & Terry, 2013, p. 130). These skills require individual judgment and problem solving skills, which can be fostered with learner agency. In this context agency denotes students' academic identity, which "has been formed through participation; it means that the person has learnt to act authoritatively and accountably" (Kumpulainen, Krokfors, Lipponen, Tissari, Hilppö, & Rajala, 2011, p. 13). Engagement in the collaborative learning environment is crucial for growing the academic identity. In addition to gaining knowledge from the instruction students are also learning from each other and the structure of the environment.

The definitions of learner agency tend to emphasize more of the subjectivity of learning than the experience of being taught. Concepts similar to learner agency can be found in

contemporary research, especially in discussions about education for 21<sup>st</sup> Century. Darling-Hammond (2012) uses the phrase “powerful learning” and notes that “it is necessary to produce more powerful learning focused on the demands of life, work, and citizenship in the 21<sup>st</sup> century” (p. 21). Other expressions include “student-centered learning” (American Psychological Association, 1997; Deakin Crick, McCombs, Haddon, Broadfoot, & Tew, 2007; Schweisfurth, 2013), “deep learning” or “deeper learning” (Aharony, 2006; Murayama, Pekrun, Lichtenfeld, & Vom Hofe, 2013), “meaningful learning” (Lonka, Olkinuora, & Mäkinen, 2004; Niemi, Heikkinen, & Kannas, 2010; Stroupe, 2014), and “school well-being” (Reyes, Brackett, Rivers, White, & Salovey, 2012; Long, Huebner, Wedell, & Hills, 2012). The common theme in these approaches is the emphasis on subjectivity in students’ learning experiences. Learner agency as a concept encompasses all the definitions mentioned above, therefore being a suitable hypernym to frame phenomenographic research about students’ diverse learning experiences.

Gaining knowledge is an important reason to attend school. Public education systems generally have a “dual purpose of improving both society and the individual” (Merriam, Caffarella, & Baumgartner, 2007, p. 70). Education worldwide has two main goals, one scholarly and one practical. The scholarly goal is to ensure cultural progression by transmitting the accumulated traditions and knowledge of previous generations. The practical goal is to increase the individual potential of students by helping them learn how to use the information that is available and become lifelong learners (Bronfenbrenner, 1979, 1989; Bruner, 1996; Schiro, 2013; Deakin Crick, Huang, Ahmed Shafi, & Goldspink, 2015). Finding a balance between these two goals is of utmost importance. Contemporary curriculum theory validates the structural and epistemological differences that education has between objective and subjective educational approaches (Au, 2011; Young, 2014). The epistemological beliefs are the key; knowledge is either transmitted or constructed. Traditional education derives from behaviorist practices and shares the ideology of scholar-academic curricula in which knowledge is disseminated to students (Schiro, 2013). The transmission model of education fails to support the development of academic self-concept and the life-long learning skills needed for 21<sup>st</sup> Century societies. Distinguishing learning experiences from the experience of being taught is the essence of the difference between these two educational approaches. Learner agency includes the experiences of causality, authorship, and effort (Bayne & Levy, 2006; Giddens, 1984; Bruner, 1996; Lüftenegger et al., 2012; Sharp, 2014), focusing on the subjectivity of learning experiences and engagement, aiming to support students’ growth to become life-long learners.

Modeling deeper learning approach and agency, so that students experience the subjectivity of learning, is crucial for meeting this global goal (Mercer, 2012; Deakin Crick et al., 2015). Educators around the world are battling with the same phenomenon: how to help their students learn. The Organization for Economic Co-operation and Development (OECD) is

conducting the longitudinal Program of International Student Assessment (PISA), in which the U.S. displays an average performance (Fleischman, Hopstock, Pelczar, & Shelley, 2010; OECD, 2010). In the wake of international comparisons like PISA, countries are learning from one another. International collaboration in teaching and learning is needed to train future teachers who will view education as a comprehensive and learner-centered activity in which students help decide what and how they learn, and how that learning is measured (McCombs, 2000; Preus, 2012; Schweisfurth, 2013). Empowering students to become active agents of their own learning supports deeper engagement in the classroom.

Students are learning for life, not just for school. Education that supports lifelong learning and increases learner engagement has been combined with meaning-oriented and a deep learning approach in several studies (Jaros & Deakin Crick, 2007; Trigwell, Prosser, & Ginns, 2005; Marton, Hounsell, & Entwistle, 1984; Vermunt & Vermetten, 2004). Students' agency is an important part of deeper and life-long learning, because it emphasizes the choices students make about their own learning and knowledge construction. Students must have an opportunity to exercise their agency (Mercer, 2012). The use of a collaborative instructional approach is crucial for increasing students' individual potential and supporting agency. Emphasizing the learner's perspective lays the foundation for agentic and autonomous life-long learning as the goal for successful education (Olson, 2014). Learner agency can be supported with instructional choices and classroom interactions. Agency is "integrally connected with a clear understanding of the available resources and their relevant use" (Kumpulainen et al., 2011, p. 13). Students must have choices while selecting the resources. Modern educational theories and practices that emphasize socio-cognitive constructivism are built on the premise of education being the subjective process for students to become more autonomous in learning. Classroom engagement and learning provides students with opportunities to develop their skills in individual decision-making or "independent judgment" (Biesta & Tedder, 2006, p. 4). It is vital for teachers to know how their chosen instructional strategies help and hinder students' learning. Recent research recognizes the importance of learning experiences that emphasize autonomous and agentic participation, including the opportunity to have control over oneself and one's learning environment (Boekaerts, 2016; Hadwin & Oshige, 2011; Järvelä & Järvenoja, 2011; Fan & Wolters, 2014; Lüftenegger et al., 2012).

An interesting question is the relationship between agency and structure in the educational context (Giddens, 1984; Munford & Sanders, 2015). In the classroom, learner agency is bounded by the learning environment and the school rules and practices. According to Olson (2014) the behaviorist assumption that teaching can be assessed by measuring learning is reinforced throughout the "institutionalization of learning" (p. 11). The cognitive, subjective processes of learning and development are shrunk to measurable, observable behaviors. The second point Olson makes about learner agency is even more poignant:

The very assumption that the school is responsible for student learning while ignoring

the student's own intentions and responsibilities leads both authorities and researchers to believe that the outcomes of schooling are directly caused by the decisions they make or the variables they control. That is, agency is attributed to the institution rather than to the child or learner. This is both wrong and pernicious. (Olson, 2014, p. 11)

Learning and teaching are two different processes. To support deeper learning, both teachers and students should experience agency in the classroom (Preus, 2012). Additionally, a sole focus on transmitting knowledge has been shown to be associated with a surface learning approach, while constructive approaches to teaching are seen to foster deeper learning and meaning oriented learning approaches (Au, 2011; Lonka et al., 2004; Helle, Laakkonen, Tuijula, & Vermunt, 2013). Focusing on students' perceptions of their learning experiences may help teachers to better understand how to support intentional engagement in the classroom.

Supporting learner and teacher agency is a system wide choice to be made. Using the model of learning-oriented school leadership Drago-Severson and Blum-DeStefano (2013, 2014) discuss an educational structure where the whole system supports deeper learning. The educational culture is always created in interactions. According to Berger and Luckmann (1966) "Everyone in society participates in its 'knowledge' in one way or another" (p. 27). At best teachers and students in the school system benefit from collaboration and dialogue, other times structure overpowers agency. The experience of agency helps students find and apply authorship in their own learning, thus carrying "great significance for the shaping of a person's identity" (Kumpulainen et al., 2011, p. 13). Students and teachers can collaboratively construct and re-construct the educational reality of the classroom. By engaging in "discussions within the public sphere" (Habermas, 1989, p. 30) researchers, educators, and students can be a part of the change toward a learner-centered educational system. These discussions can happen in the classroom, or school and district level. The key ingredients are the ownership of learning and listening to the experiences of others with the intention of understanding.

The purpose of this research was to describe and understand PAHS seniors' perceptions of their learning experiences and engagement strategies. The intersection of students' subjective learning experiences and the instructional reality in which their everyday learning happens was used to study the senior students' conceptions of learner agency (Bandura, 1986; Vygotsky, 1987; Bronfenbrenner, 1979; Mercer, 2012; Deakin Crick et al., 2015). The methodology and framework for this research derive from humanist socio-cognitive constructivism, in which knowledge is understood to be part of socially constructed reality (Berger & Luckmann, 1966). While the world and society do exist in objective reality, the way humans internalize the world occurs through individual and contextual socialization processes, which makes reality a subjective experience and places students at the center of their own learning ecosystem (Bronfenbrenner, 1979, 1989). Direct sharing of subjective reality is impossible, and the only way to understand the subjective realities of others is through interactive communication. A multitude of communication studies focus on sharing the

subjective realities, starting with the classic transmission theory of Shannon and Weaver (1949). This current study leans on interactionism because learner agency as the theoretical framework and phenomenography as the methodology both carry interactionist themes and underpinnings (Snow, 2004).

There is currently insufficient amount of research into students' viewpoints, which could be the result of education traditionally being conceptualized as a teacher-led activity, in which students' main role is to accept the provided information. Learner agency balances students' individual actions and choices within the structure of formal education, discussing agency as experiences of effort and authorship of learning (Bandura, 1989, 2006; Giddens, 1984; Bayne & Levy, 2006; Lüftenegger et al., 2012). Fundamental to this framework is to research students' lived learning experiences. Understanding how students intentionally influence their own engagement strategies in the classroom environment helps teachers to support students' learning process. What is their perception of learning and engagement? Säljö (2012) emphasizes the "need to include, and consider seriously, issues of how children's opportunities for participating and contributing to activities are organized, and what the implications of their involvement are in terms of their future life" (p. 10). In the modern world where information is abundant, the role of teacher is shifting from being the main source of facts to being the facilitator of the learning process. Therefore, researching students' perceptions of their learning experiences is necessary in order to help teachers know how to support knowledge acquisition and elaboration.

### **Positionality Statement**

There is no other way I could imagine approaching such a subjective experience as learner agency, than by attempting to understand the individual learning experiences as expressed by the students themselves. In socially constructed reality, the individual internalized understanding of reality is externalized by collaborative meaning-making (i.e. constructing a shared reality), making it possible for an interviewer and interviewee to understand each other while engaging in a dialogue about perceptions and experiences.

During my own K-12 education, I never imagined I would become a teacher. It appeared to be a very thankless occupation. As a teenager I observed my teachers and noted their different dispositions and approaches, even though I had no formal concept to support my observations. Some teachers seemed to have a strong routine for delivering their subject matter, and they just poured the information over students and announced what would be in the exam. Other teachers appeared to be very excited about their subject, and some engaged in a dialogue with students and emphasized understanding of the concepts and contexts, and making connections. The main difference between interesting and boring classes was simple: Either the teacher wanted to make sure I knew what they thought about the topic, or I was

asked to form my own opinion about it. The latter classes were much more appealing to me. Looking back I can see the meaningfulness in knowledge construction, and the difference between surface and deeper learning driving my interest. I have always had a great need for sense-making and understanding connections.

After having my own children and reading about parenting and education, I went back to school and studied educational theories because I was so fascinated by the way my children learned and constructed their own unique, subjective worlds. I have four children, and they are wonderfully distinctive individuals. Intertwining my growing theoretical knowledge with my parenting and working as a teacher taught me how important continuous development is for educators. There are many wonderful theories and views to be reflected and merged into one's own practice. My own perception of effective teaching and learning is based on my Finnish upbringing and education, as well as the pedagogy supportive of student agency that I learned during my teacher training there. My life was never quite the same after reading Berger and Luckmann's (1966) theories about the social construction of reality. Once you gain awareness there is no undoing of it. My subjective belief of how learning can be supported is in constant dissonance with the objective reality of education and the practices used in instructional design and delivery, which makes me aware of socially constructed identifiers and cultural institutions.

My educational philosophy is a combination of four different learning theories: cognitivist, humanist, constructivist and social-situational, which derive from the humanistic worldview, and acknowledge the subjectivity in knowing and learning, as well as in research (Honka, Lampinen, & Vertanen, 2010). A humanist orientation incorporates the constructivist approach to teaching, learning and research, acknowledging the subjectivity of knowing and learning. The humanist view of learning, being based on cognitive psychology, is often divided into cognitivist, constructivist and experiential paradigms. I am avoiding the behavioristic learning approach, because it reflects a mechanistic view of learning in which knowledge consists of static and objective facts to be transmitted, thus belonging more in the positivist paradigm (Merriam et al., 2007). Considering the subjectivity of experiencing life, and the multitude of interpretations that can be made about a shared experience, it seems impossible to ignore the effects of situationality and contextuality of knowledge. This has been my guiding principle in all my work with students and teachers. In every faculty and trainer position I have worked as a change agent to support teachers' growth toward student-centered practices (Kochar-Bryant, 2016). Learning is a different experience from being taught.

Phenomenographic pedagogy and research "attempt to discover what different approaches students are taking and to understand these in terms of outcomes of their learning activities" (Bowden, 1990, p. 9). The two main reasons for choosing phenomenography as the methodology for studying students' perceptions of their agency are my desire for students' voices to be heard and the opportunity to engage in abductive reasoning and analysis. I am

fascinated about the way abductive reasoning can help to create conjectures that reframe the problem in a new way. In general, I find qualitative research very meaningful as an attempt to understand the subjective realities of others. However, pure induction (especially in the Husserl tradition where the researcher should have no previous knowledge) is hard for me. I like learning. And I love to think and discuss all kinds of things, which helps me to build connections to various interests, and wonder how they might relate to one another, forming explanatory hypotheses of the relationships. Therefore, I prefer the Peirce model of abductive reasoning (Peirce, 1899; Douven, 2011) over the inductive approach, simply because it allows me to engage in finding a satisfactory explanation for the research question. The answer may not be the best one, but a satisfactory one, which implies accepting the incompleteness of our knowledge, and thus aligns well with my epistemological beliefs.

Furthermore, the theories of the social construction of reality (Berger & Luckmann, 1966), the interplay of agency and structure (Giddens, 1984), and the need to improve students' subjective learning experiences are the driving forces of my positionality. I perceive a strong dissonance between how students learn best while they are deeply engaged in their own learning process, and the way contemporary instructional practice is expected to provide tangible, objective, and measurable results as products of learning. The subjectivity of learning cannot be ignored in a world where information is available everywhere. Instead of forcing objectivity into personal learning we should invest in building students' human capital and teachers' professional capital in order to achieve better learning outcomes.

My current position as a teacher trainer and faculty member at an online university provides me an opportunity to listen to the narrative reflections of my students every day, and admire the diversity in classrooms around the country. I talk to about 100 teachers every week, and constantly wonder if there is a way for me to improve the learning experiences their students have, and provide teachers with alternative approaches for instruction and learning facilitation, so that they can better understand the needs of their students. My own teacher education was very different from the training my teachers have gone through. Finnish teacher education is based on scholar-practitioner model that heavily emphasizes the teacher also being a researcher. The other main difference is the absence of pre-scripted curricula – teachers are taught to design instruction for understanding and student-centered learning in the classroom. Students' engagement in information processing depends on their learning conception (Säljö, 1979). Hence, I try to support the deeper learning conceptions among my students and talk about learning as personal transformation. I seldom refer to my own instructional activities as teaching, because I strongly believe that students are the ones doing the “real work” and the teacher is there to help and guide students during the learning process.



## Definitions

The particular definitions of learning related concepts and words that are most important in this research are briefly explained below. There is more vocabulary in current educational verbiage, but the following terminology was considered to be most important to be specified: agency, deep and deeper learning, dialogue, engagement, learner-centered practices, learner agency, learning, learning engagement, learning environment, learning process, meaningful learning, self-regulation, surface learning, and school-related well-being.

- Agency as a psycho-social concept refers to self-awareness and degree of freedom. It is something we do intentionally. More specifically, agency is “the capacity of actors to critically shape their own responsiveness to problematic situations” (Emirbayer & Mische, 1998, p. 971). Agency does not happen in a vacuum, but is situated in the duality of social practice with structure. Giddens (1984) states that agency cannot exist without structure, and discusses agency as the “transformative capacity” (p. 14) of actors.
- Chronotopes are spatial and temporal aspects of socially constructed practices, used in the educational context to situate the learning process into the space and time (Brown & Renshaw, 2006; Bronfenbrenner, 1989). At school chronotopes define the classroom culture, thus having a strong effect on students’ learning experiences. Traditionally, the organization of learning activities centers on the teacher and the curriculum. Recent research recognizes the importance of creating chronotopes that support students engagement (Kumpulainen, Mikkola, & Jaatinen, 2014; von Duyke, 2013).
- Deep and deeper learning both refer to acquiring transferable knowledge through classroom experiences. The emphasis is in supporting students’ lifelong learning process. The term “deep learning” resulted from the original phenomenographic research of Marton and Säljö (1976) where researchers found out students having different approaches to learning. These approaches describe how learners perceive tasks – either as disconnected pieces of information to be memorized in order to pass the exam (surface learning), or as knowledge to be constructed and understood in order to create new meanings (deep learning). Deeper learning has been defined by American Institutes for Research (Huberman, Bitter, Anthony, & O’Day, 2014) as “a set of competencies students must master in order to develop a keen understanding of academic content and apply their knowledge to problems in the classroom and on the job” (Opportunities and outcomes section, para. 2).
- Dialogue in education refers to the productive interactions that support students’ deeper learning in the classroom and help them to understand the concepts and construct the meaning of the topic to be learned. Lodge (2005) defines it as the follows: “Dialogue is about engagement with others through talk to arrive at a point one would not get to alone” (p. 134). This engagement must be fostered in education. According

to Hämäläinen and Vähäsantanen, (2011) “these productive dialogues do not necessarily emerge unassisted” (p. 176), but require for the teacher to facilitate the dialogue in the classroom.

- Engagement in one’s own learning process is different from engagement (participation) in classroom activities. The difference lies between autonomous and controlled activity, as seen in the Deci and Ryan (1985, 2008) metatheory of self-determination. Intentional engagement reflects student’s intrinsic motivation and goal orientation for determined involvement in one’s own learning (Boekaerts & Cascallar, 2006; Appleton et al., 2008; Boekaerts, 2011; Upadaya & Salmela-Aro, 2013).
- Learner-centered practices focus on collaborative learning and meaning-making in the classroom. American Psychological Association (APA) integrated research and theory to formulate learner-centered psychological principles (1997). These principles recommend focusing on students’ experiences and provide a framework for designing learner-centered practices in classroom. The concise table of these principles is available in Appendix I. In 2015, the principles were revised and reformulated into the “Top 20 Principles for Pre-K to 12 Education”, providing insight into effective instruction, classroom environments that promote learning, and appropriate use of assessments (APA, 2015). The table of these principles is available in Appendix J.
- Learner agency is a specific hyponym of human agency applying to students within learning organizations, and occurring in a specific place: the classroom. To better describe the interplay of agency and structure in education, Evans (2007) defined bounded agency as “socially situated agency, influenced but not determined by environments and emphasizing internalized frames of reference as well as external actions” (p. 93). To be an agent is to “influence intentionally one’s functioning and life circumstances” (Bandura, 2008, p. 16). Therefore, learner agency refers to the choices and degree of freedom students have about their learning, and the opportunity to perceive oneself as an actor.
- Learning as a concept covers both the educational process at school, but also the way humans absorb information and cultural practices through their everyday interactions with the world. To focus the discussion and emphasize learning over teaching, Illeris’ (2003) definition is used in this thesis: “an external interaction process between the learner and his or her social, cultural or material environment, and an internal psychological process of acquisition and elaboration” (p. 298).
- Learning environment refers both to the physical space and the classroom culture, including the social context. Conner and Sliwka (2014) provide the following definition: “The learning environment recognizes the learners as its core participants, encourages their active engagement and develops in them an understanding of their own activity as learners” (p. 170).

- Learning process has an inseparable relation to the definition of learning used in this research. Drawing from the works of Piaget (1952) and Kolb (1984), the learning process is understood to be an internal procedure, enhanced by external events. The relational nature of the learning process is also visible in the works of Vygotsky (1987), Bandura (1986, 1999) and Bronfenbrenner (1979, 1989). The experience of individual learning is different from the experience of being taught.
- Meaningful learning occurs when students can relate the classroom content to their own knowledge of life. Niemi et al. (2010) state this as the lived “school day meaningfully experienced” (p. 139). Furthermore, in order for self-regulated learning to develop among students, “adults must provide learners with a guided learning environment and tasks that connect them with other microsystems in personally and culturally meaningful ways” (Hadwin & Oshige, 2011, p. 254).
- Self-regulated learning (SRL) focuses on understanding students’ cognitive-constructive skills and empowering independent learning (Zimmerman, 2008). Teaching metacognitive skills is an important part of SRL, and as a result self-regulated learners engage actively in their own learning process (Blackhart, Nelson, Winter, & Rockney, 2011). In social situations like the classroom environment, co-regulation or shared regulation emerges as the integration of individual SRL and the learning processes of the group (Hadwin, Järvelä, & Miller, 2011).
- Surface learning as a concept resulted from the original phenomenographic research of Marton and Säljö (1976) where researchers found out students having different approaches to learning. This approach describes how surface learners perceive learning tasks as disconnected pieces of information to be memorized in order to pass the exam.
- School-related well-being is another important part of the learning experience. Students’ subjective well-being at school is an often ignored factor in learning (Bradshaw, Keung, Rees, & Goswami, 2011; Long et al., 2012). This school-related well-being is a subset of the general framework of human well-being which, conceptualized by White (2010), emphasizes three components: “the material, the relational, and the subjective” (p. 161). Considering Maslow’s (1943) hierarchy of needs, it seems obvious that students’ well-being needs must be met before higher-order thinking can occur.

## Research Questions

The central research question and four sub-questions were designed to help understanding and describing of learner agency, as perceived by the high school seniors.

**Central question.** What are students' perceptions of their learning experiences?

**Sub-questions.** What kind of learning interactions do students experience in the classroom? How do students choose to engage in the classroom, and how do they describe the intentionality of their own learning? What are students' perceptions of life-long learning? What instructional choices do students describe as being impactful for their self-direction and self-regulation?

The central research question focuses on students' conceptions of learning in order to understand how they perceive learner agency. In order to support active engagement, it is important to know what students think about their learning experiences (Säljö, 1979; Boekaerts, 2011). The sub-questions have been chosen to illuminate students' experiences of "intentionality of learning, forethought, self-reactiveness, and self-reflectiveness" (Bandura, 2006, p. 164). These four core properties of agency are crucial to understanding what students' agency in the classroom looks like. The learning experience is considered to be constructed from the processes of interaction between the student, the content and the environment followed by acquisition and elaboration of learning (Entwistle, 1997; Illeris, 2003).

## Theoretical Framework

The problem of practice in this research about students' perceptions of learning experiences is observed through the concept of learner agency. The purpose was to describe students' subjective experiences of interaction and acquisition in learning, their skills and awareness of self-regulation in the classroom and the intentionality and meaningfulness of their choices, in order to understand how to improve the quality of learning in the future. Roots of learner agency had to be traced in order to frame the empirical phenomenographic analysis that resulted from making sense of the collected data.

Agency is an integral part of humanity. It emerges from our biological nature (Rose, 2005), but also belongs to the development of cognitive and social aspects of our lives (Mead, 1934; Bandura, 1986, 2008; Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998; Vygotsky, 1987; Piaget, 1952). Agency is an integral part of our identity and social life. People with agency are generally viewed as contributors to their life circumstances, not just products of their environment, and they make choices about their own life and learning (Bandura, 2006; Giddens, 1984). Learner agency as a hyponym for human agency emphasizes students' decisions for intentional engagement in learning. While not using the word 'agency', Stryker (2008) discusses Mead's concept of human dignity that is "seeing them as important determiners of their lives rather than the pure product of conditioning" (p. 16). Human dignity

is the root of learner agency. In a classroom context, students' perceptions of learning are an important factor for their agency (Marton & Säljö, 1976; Emirbayer & Mische, 1998; Biesta & Tedder, 2006; Mercer, 2011). Furthermore, the view of agency emphasizes the use of student-centered practices, so that students are more than just “automatons bending to intractable social forces” (Stryker, 2008, p. 19). The opportunity to choose contributes to students' engagement by providing space for curiosity and individual interest.

As an educational concept agency relates to reciprocal learning interactions and the cultural socialization of the student. Being a social construction of lived reality, agency leads back to sociological theories. Habermas wrote in *Public Sphere* (1962/1989) about the dialogue people should have over their culture and society in order to improve the situation. The educational application implies that we must listen to students' voices about their learning in order to improve their academic success. Berger and Luckmann (1966) theorized in *Social Construction of Reality* how interaction in a social system creates conceptualized expectations, and how children become socialized into the culture and its norms by participating in the social dialect. The very interesting extension of this is Bernstein's *Class and Pedagogies* (1975), where normative expectations of the society are reinforced by the classroom talk. There is no doubt of the effects of classroom talk in contemporary societies. Teachers' encouragement has a significant impact for students' educational progress (Alcott, 2017).

Agency relates to the human development and the perceptions students will create about themselves and their place in the society. Bronfenbrenner's *Ecology of Human Development* (1979) discusses the influences of micro-, meso-, exo- and macrosystems on the human socialization process. Later this framework for understanding human development in social context was completed to reflect the chronosystems, that bind the development into the effects of time, as well as emphasizing the proximal processes that refer to interactions in the immediate environment. In *Ecology of Developmental Processes* (Bronfenbrenner and Morris, 1998) focused on the importance of proximal processes in learning and development. The view of learning as a process is strong in their writing: “development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment” (Bronfenbrenner & Morris, 1998; p. 996). The collaborative aspect of learner agency builds on the theories of *Situated Learning* by Lave and Wenger (1991), who researched participation in the forms of identities in social world and belonging to a community. Bruner's (1996) *Culture of Education* brings all this together emphasizing the importance of learning as a meaning-making activity and the surrounding culture being the toolkit for understanding it.

Also in contemporary theories agency is seen as an important part of learning and human development (Bayne, 2008; Appleton, et al., 2008; Gillespie, 2012; Kumpulainen, Lipponen, Hilppö, & Mikkola, 2013). In the classroom this is visible in students' sense-making

activities during play and learning (Hakkarainen, 2006). Learner agency according to Kumpulainen et al. (2011) is “often associated with such characteristics as activeness, intent, participation, opportunities to choose and make a difference, voluntariness, and the skill and power to choose one’s ways of action” (p. 23). According to the theorists discussed in the previous paragraphs and Bandura’s work on agency, deeper learning and higher order thinking occur as a result of human interactions. Successful development of learner agency is crucially important during K-12 because that is when students are socialized into contemporary culture. Bandura (2006) expresses the socializational function of learning as the following: “The newborn arrives without any sense of selfhood and personal agency. The self must be socially constructed through transactional experiences with the environment” (p. 196). Placing agency into the classroom context presents the need to better understand students’ experiences of interaction and acquisition in order to change instructional design to support students’ growth into productive and functional citizens of 21<sup>st</sup> Century knowledge societies (Sahlberg, 2010; Kuit & Fell, 2010; National Research Council, 2012).

### **The Roots of Agency as a Concept in Learning**

The historical trajectory for agency is long. In the 17<sup>th</sup> century Descartes stated that individual thinking was agentic action, emphasizing the priority of will over intellect (as seen in Alanen, 2009). Realizing the importance of individual thinking laid the foundation for agency and learning to be understood as a means to freedom. During the Enlightenment Era, pragmatists like Kant wrote of humans as free agents, and created an educational theory to cultivate thinking in schools (Elias & Merriam, 1995). Heidegger (1927/2008) discussed agency in the context of *Dasein* (“being-there” or “being-with”), emphasizing the interdependence of agency and social interactions. Habermas (1962/1989) continued on the Kantian pragmatic strand, connecting agency and structure through communicative action and language, situated in the life-world.

Today agency as a theoretical framework for education continues to support individual thinking, and thus falls into two basic orientations of learning theories: humanism (autonomy, self-reflection) and social-cognitive (interaction, socialization), both belonging to the constructive view of education (Merriam, et al., 2007). Furthermore, the necessarily subjective –or individualistic – approach to agency emphasizes learner-centered teaching and learning (APA, 1997, 2015). Learner agency balances students’ perceptions of their learning interactions and acquisition, including their individual actions and choices, within the structure of formal education, discussing agency as experiences of effort and authorship (Bandura, 1999, 2006; Giddens, 1984; Bayne & Levy, 2006). Biesta and Tedder (2006) discuss how agency from the viewpoint of education is “the process through which human beings develop their rational faculties so that they become capable of independent judgment” (p. 4). This statement

articulates the need for increased agency in modern classrooms in order to develop critical thinking skills that will serve students throughout their lives.

### **Human Agency**

Human agency carries strong tenets of ownership and action. Bayne (2008) defines the phenomenology of human agency in a simplistic way: “something that you are doing, rather than as something that is happening to you” (p. 184). The distinction between autonomous and controlled activity is important when considering human agency and individuals exercising their will (Deci & Ryan, 1985). This viewpoint emphasizes self-determination, which is essential for agency. Ownership grows when individuals are allowed to make decisions about their own actions.

In sociological theories, agency relates to the human capacity to act independently in a social context and thus is seen as a dialogue, situated between the individual and society (Giddens, 1979). This situationality brings the definition of agency close to the concept of human actions in the “public sphere” (Habermas, 1989, p. 30). Agency does not occur in a vacuum. It requires an environment. Researching agency within educational settings requires an inquiry into how agents perceive their actions and interactions within the learning environment. The interactive component of human agency has been researched by Edwards (2005), who defined relational agency as the “capacity to work with others to expand the object that one is working on” (p. 172). Agency can therefore be seen as a necessary component for sharing important information and engaging in collaborative meaning-making.

Human agency as the capacity to make decisions about one’s own life is an everyday concept. Giddens published the structuration theory in 1984, which emphasized the modalities of social dialogue for the reconstruction of structure and agency. While having freedom to choose, after making decisions adults face the consequences of their choices. Some decisions have a long-lasting impact, especially if they contradict the structures. Giddens (1979) defines agency as “causal interventions of corporeal beings in the ongoing process of events-in-the-world” (p. 55). In this view, agency is as a temporal construct and relates tightly to the dialectic circle of externalization and institutionalization of socially constructed reality. Additionally, agency and structure relate to Bandura’s (1999) developmental theory about individuals not being born as members of society, but becoming ones through socialization. Bronfenbrenner thought that society was the factor that influenced children’s development, and this is the key to his entire theory (as seen in Härkönen, 2007, p. 3). Combining the main ideas of these three theorists provides a viewpoint for education being a major contributor to the secondary socialization process and the construction of agency during school years. With the processes occurring during primary and secondary socialization, we learn the structure and norms of the culture to which we belong (Bronfenbrenner, 1979; Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 1998; Bruner, 1996). There is a strong thread of temporality in

learning and development. Neither can be fast-forwarded, because over extended periods of time “human development takes place through processes of progressively more complex reciprocal interaction” (Bronfenbrenner & Morris, 1998, p. 996). To oversimplify this statement one could say that human learning happens in interactions.

The same way that individuals and social/cultural forces shape everyday experiences in human lives, educational culture either empowers or stifles students’ agency by allowing them more or less choice and self-regulation (Emirbayer & Mische, 1998; Bandura & Locke, 2003; Volet, Vauras, & Salonen, 2009; Järvelä, Volet, & Järvenoja, 2010; Järvelä & Järvenoja, 2011; Biesta, Priestley, & Robinson, 2015). Education is, and must be, a reciprocal interaction. Teacher-led education is traditionally based on monologues in which one (the teacher) is communicating to many. To support the learning process and the growth of agency during school years, educators must find ways to engage students in a dialogue and provide opportunities for students to practice choosing.

**Structuration Theory.** Agency, according to Giddens (1984), must be discussed in the context of structuration theory, showing the important roles of both individuals and the social structure shaping lived reality. This view of agency is shared by Bandura (2006), who defines agency as “human functioning being a product of a reciprocal interplay of intrapersonal, behavioral, and environmental determinants” (p. 165). Human learning and development cannot be isolated from the culture where it occurs, from the interactions that shape the process. These same themes of interaction are found in Bronfenbrenner’s (1979, 1989) ecological systems theory influencing the development of human beings. Human actions in the life-world are always situated within the social context, carrying the situationality and contextuality within each experience. Detaching an experience from its environment may significantly change the interpretation of the event. While structuration theory (Giddens, 1984, 1991) is not a developmental theory, as a sociological theory it explains the interplay of agency and structure in society, and how the structures are maintained and modified by people exercising their agency. The themes of interpersonal communication, temporality, and reciprocity are shared in all these foundational theories of agency. In structuration theory, agency and structure have three different modalities: interpretation, facility, and norm. These modalities function between interaction (communication, power, and sanction) and the structure (signification, domination, and legitimation), creating the dialectic cycle of structuration.

The same modalities of interpretation, facility, and norm that societies are made of are also visible in the classroom. Teachers own the authority in the classroom, strengthening different forms of the existing educational structure as representatives of society: signification, legitimation, and domination. The first, signification, is about the teacher being the learning facilitator, classroom manager, grader, supporter, transmitter of knowledge, etc., based both on their own interpretation of teaching practices and on students’ expectations and



interpretations of the structure. Signification is about creating meaning and knowledge through interactions in the classroom and with learning materials. The second structure, domination, is about degrees of power, and could be seen as the teachers' control or resources and the authority to evaluate students and their work. Students with advanced facilities and resources at their disposal may perceive stronger opportunities for agency and self-regulation than others. The third structure, legitimation, is about societal norms, values, and standards. Classroom routines are built on a structure of legitimation because it keeps the environment predictable for students. "To exercise some measure of control over one's developmental course requires, in addition to effective tools of personal agency, a great deal of social support" (Bandura, 1989, p. 8). However, the interactions within this third structure may become sanctions if the norms are hard to follow for any given reason. Teachers and students engage in all three types of interactions over the course of the school year and the space of campus. There are both social and formulated rules in the classroom and the school environment. Every student has a subjective interpretation of the structure, which may or may not align with the interpretation of others. Therefore, it is possible to have misinterpretations, which produce undesirable behaviors in the environment.

When the temporality and subjectivity of these modalities and dimensions is not emphasized and understood, it becomes hard for educators to support students' agency. Overemphasizing power and domination gives less space for agency. Structure is important as a basic component in any given social context, where individual choices need to be limited, and agency is an equally important component for people to have freedom to make choices and "critically shape their responses to problematic situations" (Biesta & Tedder, 2006, p. 11). It is important to find a way to balance agency and structure in school settings in order to support 21<sup>st</sup> Century learning. In addition to understanding the modalities of agency, recognizing the temporality of agentic action is of outmost importance because agency is not something one has, it is something one does, and therefore is situated as an action in the context of classroom learning discourse.

Agency and structure are important theoretical concepts in educational environments. Domination and legitimation have traditionally been the main structures following the objectivist paradigm, while power and sanction rule the interactions in educational settings. However, structuration theory gives hope for change (Barratt-Pugh, 2007). Both agency and structure are necessary parts of social action, like collaboration and co-regulation in the classroom. Agents' reflexive actions are remediating and re-authoring the patterns of practice as structure and agency keep on recreating and reforming each other (Giddens, 1984). Everyone has a part to play in changing the structure of educational culture, one way or another. Choosing to use communication as interaction in the classroom reciprocates with the modality of interpretation and the structure of signification, making it easier for students to use their agency (Giddens, 1984). Educational culture has a strong effect on students' secondary

socialization process, and thus is partially creating the future in which students will live (Berger & Luckmann, 1966; Bronfenbrenner, 1979). It is important for anyone who works in educational settings to think about the theories behind the practices and understand the impact of classroom interactions and teacher encouragement. According to Bandura (1999) “social systems that cultivate generalizable competencies, instill a robust sense of efficacy, create opportunity structures, provide aidful resources, and allow room for self-directedness increase the chances that people will realize what they wish to become” (p. 193). Teachers are trusted with great responsibility.

### **Learner Agency**

Learner agency is a specific hyponym of human agency, occurring in a defined place of formal education: the classroom. Being a fundamental social construct of reality and relating to both learning interactions and socialization of the student, it is crucially important to discuss learner agency as a concept in public education. Agency develops from individual experiences during childhood and adolescence. Transactions with significant others (parents, caretakers) and teachers – but also peers – are a major part of the secondary socialization process, which occurs during childhood and adolescence. Furthermore, the emerging agency can be supported or stifled by the learning environment and instructional interactions (Brown & Renshaw, 2006; Kumpulainen, et al., 2014). Therefore, it is essential for educators and policymakers to understand how to support learner agency and improve the learning experiences that students have in order to better prepare students for life in a knowledge society (Boekaerts & Cascallar, 2006; Volet et al., 2009; Sahlberg, 2010, 2011; Mercer, 2012; Rajala, Hilppö, Lipponen, & Kumpulainen, 2013; Deakin Crick et al., 2015).

Engaging in a dialogue and balancing structure and agency in the classroom is important. Munford and Sanders (2015) discussed the “relationship between agency and structure, the extent to which youth can exercise agency in the context of their particular circumstances and the social structures that shape their experiences” (p. 617). In the classroom, or school in general, learner agency is bounded by the structure of education. Decisions are not made in a vacuum and the schools’ rules aim to provide expectations for behavior that guarantee a safe learning environment for everyone. In addition to the physical environment, also temporal element has a strong presence in the context of learner agency. Classroom learning is bounded by time, in several different meanings. Students may be associating the learning activities only in the school, and considering their free time being spent in other activities. Or, they may have a perception of learning being a life-long activity. Lessons, recesses and lunch times define the structure of schooldays. Emirbayer and Mische (1998) discuss learner agency as an intrinsically social and relational phenomenon in great depth, and they define learner agency as an “internally complex temporal dynamic” (p. 964). The same themes of situationality and contextuality that emerged in the discussion of agency

and structure are present in this discussion of temporality, where learner agency is defined as *“the temporally constructed engagement by actors of different structural environments”* (Emirbayer & Mische, 1998, p. 970, italics in the original text). Learner agency is not an on/off phenomenon. It is a developing, growing, and changing experience. The temporal elements of agency – iterative, projective and practical-evaluative – resonate with one another through emergent events in the contexts of various learning environments (Edwards, 2005; Conner & Sliwka, 2014). Emphasizing learner agency could be used as an approach to improve contemporary learning experiences. This requires discussions of students’ individual perceptions of their learning experiences, goals, and objectives to temporally situate their growing agency and to “contextualize past habits and future projects” (Emirbayer & Mische, 1998, p. 963). Learning experiences are subjective by nature, but they are tied into the temporal context of learning and the social context of agency and structure. It is important to remember that the chronosystems of human development and learning can cover either a short or long period of time (Bronfenbrenner, 1989). Agentive action in the classroom is actualized in engagement in one’s own learning process, which is affected by classroom structures and the educational system.

Learner agency, according to Bandura (2006) is a construct of four different components: intentionality, forethought, self-reactiveness, and self-reflectiveness. Viewing learner agency as a construct of those four core properties makes it easier to recognize how agency can be effectively used in the classroom. In order to understand these components within the framework of the structuration theory and this research, it is important to emphasize three parts of agency and structure: the contextual sensitivity of agency in the classroom, the complexity of human intentionality in all actions, and the subtlety of social constraint in the structures (Giddens, 1991). In the structuration theory (Giddens, 1984), the primacy of social practices creates the interplay of structure and agency. The classroom structure often equals domination, as seen in Giddens’ (1984) duality of structure and agency, in which the teacher and school system create the rules. However, ownership over one’s own learning may become the facilitating modality of the power interaction between the teacher – who represents the structure – and the students, who aspire to exert their own agency. In a situation like this, learner agency functions as a facilitating factor in a win-win situation: students learn what the teacher wants them to learn, and students also experience increased autonomy. Ideally, students with strong experiences of agency will continue learning well beyond their graduation. Students’ perceptions of learning reflect the learner agency they have experienced in the classroom. In this context, agency denotes the quality of engagement.

**Application of learner agency in the classroom.** Formal education is a major part of the secondary socialization process of children and can be seen as an intervention in the naturally occurring learning process that begins at birth. In the ecological development model of Bronfenbrenner (1979), learning is about *“what is perceived...and how this psychological*

material changes as a function of a person's exposure to and interaction with the environment" (p. 9). The ecological view of educational culture emphasizes the developmental aspect of agency. While agency is not something that can be given or taken away, as it belongs to the self-determinism of being a human, emerging agency can be supported or stifled by the environment and the interactions within it. Learner agency is developed in classroom interactions (Kumpulainen & Lipponen, 2010). However, there is a "complex ecology of learning in schools and classrooms that may promote or inhibit higher attainment" (Deakin Crick et al., 2007, p. 303). The ecology of agency appears to carry the same notions as Bronfenbrenner's (1979) theory of human development, having not only situational and contextual aspects, but also chronological trajectories (Brown & Renshaw, 2006; Emirbayer & Mische, 1998). When agency is seen as "the capacity of actors to critically shape their own responsiveness to problematic situations" (Emirbayer & Mische, 1998, p. 971), it translates well for the inquiry about students' perceptions of their learning experiences, choices and engagement in the classroom. What are the classroom experiences that support constructing and reconstructing agency in high school? It is important to remember that agency is not a label, nor a possession; it denotes a 'quality' of the engagement of actors with temporal-relational contexts-for-action, not a quality of the actors themselves (Emirbayer & Mische, 1998). These temporally embedded processes of engagement contain actions in the past, present, and future, which creates interconnections to Bandura's (1999, 2006) theory of learner agency. In the classroom learner agency is visible in four core components: students' intentionality, forethought, self-reactiveness and self-reflectiveness (Bandura, 2006).

**The four components of learner agency.** The first two components of Bandura's (2006) learner agency – intentionality and forethought – appear to have a strong temporal aspect and cover the situational chronosystems of learner agency, focusing on the complexity of intentionality and planning future actions. The other components of Bandura's (2006) learner agency – self-reactiveness and self-reflectiveness – appear to relate to the power relations within the classroom, reflecting both the contextual sensitivity and the subtlety of social constraints. In the classroom environment these components apply straightforwardly to students' learning and academic performance. Students' engagement can be seen as their intentional learning activity, and learning motivation or personal goal-setting as their forethought. Students' self-reactiveness is visible in the way that well-performing students are capable for advanced self-regulation and how the group reacts to co-regulation (Boekaerts, 2011; Volet et al., 2009). The fourth component, self-reflection, is often overlooked in traditional teacher-centered classrooms. Improving the practice of students' self-assessment would contribute to their agency, as increased self-reflection deepens students' self-evaluative practices (Zimmerman, 2002; Travers, Morisano, & Locke, 2015). These four components will be further discussed in the literature review in Chapter Two, where they are tied into research about deeper learning and self-regulation in the classroom.

### **Justification for Using Agency as a Framework**

The theoretical framework and data collection practices used in a research should reflect the same epistemological beliefs. Lehtinen (2012) states how "A meta-theoretical understanding is needed of the nature of the different theoretical approaches which have been developed to explain and make sense of different aspects of the changes, processes and conditions we refer to when we are talking about learning" (p. 24). Learning experience cannot be isolated as a single variable to be measured, but requires the attempt to understand the individual view of each student. Therefore, focusing on describing students' perceptions of their learning experiences using conception as the unit of analysis is a valid and important approach for phenomenographic research about students' perceptions of learner agency (Marton & Pong, 2005).

Learning itself is a subjective phenomenon that eludes measurements, due to the highly contextual and situational factors of each individual learning experience: every student has a unique approach to learning, a diverse academic history, and certainly an individual set of expectations for any given class they attend (Prosser, 1993; Lave & Wenger, 1991; Anderman, Andrzejewski, & Allen, 2011; Helle et al., 2013). Beliefs about learning have an effect in how classroom experiences are perceived. Biesta, et al. (2015) researched teacher agency, conceptualizing it as an ecological construct, and emphasizing how it is "a subject to structural, cultural, and material influences" (p. 629). Similarly, the development of learner agency depends on the experiences students have in the classroom and in the educational system in general. In order to effectively research such a subjective phenomenon as learning, the vantage point must be matched with the experiences of the subject - the student - and provide an opportunity for students' voice to be heard. Without engaging in dialogue there might not be a shared understanding, just assumptions (Wenger, 1998). Learner agency emphasizes students' active role in their own learning process, providing a view into students' perceptions of learning.

The problem of practice, students' perceptions of learner agency, is situated within the theoretical framework of human agency to examine the active choices students make in their everyday engagement. The phenomenographic inquiry into learner agency and the thematic interviews to understand students' lived learning experiences are compatible tools to be used with agency as a framework because they all share similar ontological and epistemological beliefs. Through the inquiry into students' perceptions of agency I considered and described what participants think about their learning experiences. Phenomenographic analysis provided a tool for conceptualizing their verbalized perceptions of learning and agency. The limitations of this study arise from the small sample size (nine students), one-time interviews, and the possibility of volunteer participants not being representative to the main student population of Port Angeles High School.

## Chapter Two: Literature Review

In order to better understand how to research students' perceptions of agency, expressed as descriptions of their learning experiences, I engaged in extensive search for literature and research about agency in education. This provided with a deeper understanding of the underlying concepts and theories about bounded agency and engagement. A significant personal realization was reaching the understanding of how education is always evolving, and teachers are a part of this change. The statement of how "education reform is an unending process of change" (Kimonen & Nevalainen, 2005, p. 631) helped to frame the understanding of temporality in learning and agency. Reading further studies from these same researchers about the ways pedagogical practices transform education (Nevalainen & Kimonen, 2013) solidified my views about the necessary paradigm shift from behaviorist practices to the socio-constructive ones (Berger & Luckmann, 1966; Kuit & Fell, 2010; Au, 2011; Schiro, 2013). Active learning is important both for students and teachers. Education for 21<sup>st</sup> Century knowledge societies is fundamentally different from the schooling that met the needs of cultures thriving during Industrial Era (National Research Council, 2012; Kereluik et al., 2013; Darling-Hammond, 2006; Preus, 2012; Jaros & Deakin Crick, 2007). The faster speed of change in the 21<sup>st</sup> Century presents the requirement for education to change, in order to remain relevant for both the students and the culture where it is situated. There is a significant difference between fostering meaningful interactions and teaching to the test. It is very important to provide students with experiences to engage in deeper learning.

The first strand of research is organized to demonstrate the pedagogical and instructional focus, discussing learning experiences in the form of engagement (Boekaerts, 2011; Skinner & Chi, 2012) and meaningfulness (Deakin Crick, 2012; Niemi et al., 2010; Niemi, et al., 2015). This thread also discusses curriculum (Young, 2014; Schiro, 2013) and relates the change in education to the conceptual framework of learner agency. The second strand of research is organized around the subjective intentionality and forethought that foreshadow deep learning engagement. Important concepts are deep and deeper learning (Marton & Säljö, 1976; Boekaerts, 2016; Boss, et al., 2011; Huberman et al., 2014), learner-centeredness (APA, 1997, 2015), self-concepts (Bong & Skaalvik, 2003; Skaalvik & Skaalvik, 2013), learning process (Boekaerts, 2011, 2016), and the opportunity to choose (Leotti, Iyengar, & Ochsner, 2010; Leotti & Delgado, 2014). The third thread has a collaborative focus, and discusses recent research about the concepts of self-regulation (Bandura & Locke, 2003; Danielsen, Breivik, & Wold, 2011; Deakin Crick et al., 2015), co-regulation (Boekaerts, 2011; Volet et al., 2009) and well-being (Bradshaw et al., 2011; Long et al., 2012) as parts of the shared classroom experience.

Furthermore, in order to tie the literature review into the theoretical framework, Bandura's (2006) four core properties of learner agency are interlaced into the literature strands of "deep and deeper learning" and "self-direction and self-regulation." The first two

components of Bandura's (2006) learner agency – intentionality and forethought – appear to have a strong temporal aspect and cover the situational chronosystems of learner agency, focusing on the complexity of intentionality and planning future actions. In the literature review these components are in alignment with the discussions of learning as a process for students intentional learning activity, and purposeful engagement as their forethought. A sufficient degree of freedom is needed for forethought; hence this property is discussed under the learner-centered strand of the literature. The other two components of Bandura's (2006) learner agency – self-reactiveness and self-reflectiveness – appear to relate to the power relations within the classroom, reflecting both the contextual sensitivity and the subtlety of social constraints. In the classroom environment these components apply straightforwardly to students' learning and academic performance. Students' self-reactiveness is visible in the way that well-performing students are capable for advanced self-direction and how the learner group reacts to co-regulation (Boekaerts, 2011; Volet et al., 2009). The fourth component, self-reflection, is often overlooked in traditional teacher-centered classrooms. Improving the practice of students' self-assessment would contribute to their agency, as increased self-reflection deepens students' self-evaluative practices (Zimmerman, 2002; Travers et al., 2015).

### **Education for 21<sup>st</sup> Century**

Public education is a globally and culturally important phenomenon, contributing to students' worldviews and perceptions of learning. This education is provided by the school, but it is just one part of the interventions that shape students worldviews (Rajala et al., 2012). Other powerful influencers are peers, families, and the media. Education as an intervention to the naturally occurring learning process functions as the secondary socialization process, but has to acknowledge the temporality and subjectivity of experiences (Bronfenbrenner, 1979, 1989; Emirbayer & Mische, 1998; Bandura, 2006). The role of education has changed, as it should, to reflect the needs of the society. This change is not recent, but has been gradually developing throughout decades, as the knowledge and understanding of human learning has increased. The socio-cognitive theory of learning emphasizes students' efforts to understand and manage their own learning, and it also suggests that teachers can help students develop their academic self-identity by providing tools for cognitive and metacognitive activities to self-regulate learning and motivation (Bandura & Locke, 2003; Anderman & Anderman, 2009; Wolters & Taylor, 2012). The contemporary view of learning and development includes the constructivist epistemology of knowledge, the humanist-cognitivist vision of learning, and the understanding that education is a contextually and temporally important part of the secondary socialization process in human development (Berger & Luckmann, 1966; Vygotsky, 1987; Bandura, 1986, 1989; Bronfenbrenner, 1979, 1989). Classroom environment is the context where curricula are actualized and where students' learning interactions occur. Schiro (2013) discusses curricula from four different viewpoints, noting how "learner centered educators

believe that knowledge has its origins in individuals' creative response to their personal experiences" (p. 178). This is one part of learner agency, the emphasis being on individual, situational and contextual understanding of the topics to be learned. Bruner (1996) states the relationship between learning and culture as the follows: "education is not just about conventional school matters like curriculum or standards or testing...How one conceives of education, we have finally come to recognize, is a function of how one conceives of culture and its aims" (p. ix-x). This is how the culture is transmitted through curricula, classroom structure, and learning interactions. The culture and epistemology are embedded into the pedagogical talk, in addition to the curriculum and instructional design (Bernstein, 1975; Preus, 2012; Wang, Su, Cheung, Wong, & Kwong, 2013). In the world today "school is not the privileged locus of learning, or the sole source of information. It is not a self-contained, closed world in which students acquire knowledge to be applied outside, but a part of a broader learning system" (Wenger-Trayner & Wenger-Trayner, 2016, p. 4). With the increased access to information arises the need for students to analyze and interpret what they read and see. Therefore, education for 21<sup>st</sup> Century must focus on providing learning experiences that support students' deeper understanding.

**Learning experiences.** Everyday learning experiences are the basic building blocks of education. Students engage in classroom activities that contribute to their individual learning process. This "guided learning environment and tasks" (Hadwin & Oshige, 2011, p. 254) that adults provide is the context where learning is situated. However, as researchers Wolters, Denton, York, and Francis (2014) note "peers may provide an increasingly salient and notable influence on adolescents' academic functioning, especially in comparison to parents and teachers" (p. 526). The learning experiences are a much more global phenomenon than communications between the teacher and the students. In order to meet the needs of 21<sup>st</sup> Century societies, learning must be understood as global and relational activity, in which transfer of learning is emphasized over other goals. This is not a new idea. For example, 16 years ago the National Academics Press published a book *How People Learn: Brain, Mind, Experience, and School*, where the authors stated: "Transfer from school to everyday environments is the ultimate purpose of school-based learning" (Bransford et al., 2000, p. 66). Researchers Danielsen et al. (2011) discussed "the new paradigm of educational reform, which is often defined by the relevance of education to the future development and aim of pursuing lifelong learning" (p. 397). Providing meaningful learning experiences that are transferable to real life helps students to become life-long learners.

Education in the 21<sup>st</sup> Century must be forward-oriented and acknowledge the fact that learning cannot end with a high school diploma. Therefore, learning must be an experience students want to repeat. Classroom learning is a social phenomenon, and the acquisition of information can be either supported or hindered by the interactions, rules, and expectations. Darling-Hammond (2006) stated that 21<sup>st</sup> Century learning must focus on "enabling young



people to participate fully in political, civic, and economic life in our society” (p. 304). Recent research supports this view. Preus (2012) researched authentic instruction and listed “creativity, innovation, critical thinking, problem solving, communication, and collaboration as key skills needed for the 21<sup>st</sup> Century” (p. 59). The recommendations from the study emphasized the need to increase deep learning in the classroom, but also to refocus educators’ work. In order to support shared understanding in the classroom, teachers must engage in open dialogue that helps students “be motivated by concerns beyond the situation, such as a distant goal, an abstract principle” (Gillespie, 2012, p. 36). Such empowering discussions should be the norm in contemporary education and occur regularly at all age levels and in all locations where learning happens. This presents new challenges for teachers, who design the interactions and learning experiences in the classroom. Researchers Kereluik et al. (2013) analyzed frameworks for 21<sup>st</sup> Century learning and defined the needs for contemporary education as the follows: “Teachers need to know how to foster cultural competence, emotional awareness, and leadership skills to facilitate not just interactions, but meaningful interactions and relationships” (p. 133). These expectations for teachers suggest a different instructional approach from the behaviorist models of education emphasizing standardized testing. Supporting students’ growth to functional members of 21<sup>st</sup> Century societies requires supporting application and transfer of learning over plain memorization. Learning experiences in such classroom environment align with the recommendations of APA (2015), emphasizing the Principle 14: “Interpersonal relationships and communication are critical to both the teaching-learning process and the social-emotional development of students” (p. 2). Education is, and must be, a reciprocal interaction. Teacher-led education is traditionally based on monologues in which one (the teacher) is communicating to many. Engaging in dialogic teaching supports the meaningful learning experiences required for the classroom

**Engagement in learning experiences.** Learning engagement is a phenomenon that belongs to the classroom, but also extends beyond the walls of the school. Studying on one’s own and completing homework are important parts of learning engagement. Deakin Crick (2012) contrasted compliance and meaningful learning by stating that “deep engagement in learning requires personal investment and commitment” (p. 676). It is important to perceive internal ownership over one’s own learning. Enjoyment is “one key element of task value which determines the academic behaviors of an individual. Students who demonstrate high intrinsic value engage in academic tasks due to their enjoyment of the task, interest, and their desire to learn” (Fan & Wolters, 2014, p. 25). School has a significant influence on students’ learning enjoyment. Discussing the results of their longitudinal research, Wang and Eccles (2013) stated that: “attending to the quality of both academic and social domains of the school environment is important in developing a positive student perception of school, which in turn promotes student motivation and engagement” (p. 21). They described the importance of emotional, behavioral, and cognitive engagement in learning interactions and activities,

emphasizing the students' need to experience competency. Their thesis and results are well aligned with other contemporary research emphasizing deep involvement, supportive social context, and contemporary pedagogical practices in the classroom discussed below.

Learning engagement is more than being a recipient of information. Mercer (2012) researched learner agency and discussed the engagement interactions by saying how "learners are not just reactive to context but as complex human beings they make sense of and engage with contexts" (p. 43). This same phenomenon about the social context and engagement has been noted by several other researchers (Boekaerts, 2011; Hadwin & Oshige, 2011; Järvelä & Järvenoja, 2011). Engagement relates to self-regulation and co-regulation in the classroom. Boekaerts (2016) discussed the need for "conceptual models that accurately describe the relations between the key constructs involved in student engagement and how it is related to motivation and self-regulation" (p. 83). The constraints and affordances in the classroom have a significant effect on students' engagement and learning process. Maybe in the future we will be able to figure out all the connections between motivation and learning.

In the classroom context, learning engagement is more than just taking notes or completing the worksheet. Students must be actively involved in their own learning process. Therefore, classroom engagement cannot be conceptualized as solely completing the educational tasks students perform because they have to (Lepper et al., 2005). There is a motivational difference between acquiring information one is curious about, and learning something that is perceived as a chore. According to Skinner et al. (2008), these perceptions appeared to be "the active ingredient in sustaining motivation" (p. 778). For motivational reasons it is important for students to have a positive perception of their schoolwork (Anderman et al., 2011). Meaningful learning is more likely to happen when students are active participants in the process. Researchers Linnansaari, Viljaranta, Lavonen, Schneider, and Salmela-Aro (2015) studied Finnish students' engagement in science lessons and discussed deep involvement as the optimal learning experience. This concept of flow derives from work of Csikszentmihalyi (1975, 1997, 2002), and suggests student's skill, interest, and perceived challenge to be pre-conditions for the flow experience. It seems obvious that this requires a significant amount of individualization of learning, simply because students have different skills, interests, and motivations when they arrive to the classroom. The experience of flow leads to the state where "students perceive their performance as pleasurable and successful" (Linnansaari et al., 2015, p. 202). The classroom challenge is to provide those learning experiences that help students to find their studies meaningful.

Researchers Wang and Holcombe (2010) studied 1046 students' perceptions of engagement and concluded by recommending teachers to build "environments that emphasize individual mastery and self-improvement rather than just emphasizing how students measure up against external benchmarks" (p. 657). It is important to notice how students' perception of classroom climate influences their learning. Another research study about children's

motivational resilience and vulnerability across time supported the importance of connecting motivation and engagement (Skinner et al., 2016). This strengthens the conception of learning ownership being included for intentional engagement. It is easier to engage in activities that are intrinsically meaningful to us. Intrinsic motivation is explained by the Coalition of School Psychology as follows: “participation is its own reward and is not contingent on tangible rewards such as praise, grades, or other external factors” (APA, 2015, p. 16). Open dialogue and intrinsic involvement help students choose to actively engage in their own education and drive their own learning experience in the classroom and beyond.

Learning engagement also depends on classroom interactions (Kumpulainen & Lipponen, 2010). In this context interactions must be understood as a broad concept, referring to teaching and learning dispositions, classroom management practices and pedagogy. Skinner et al. (2008) studied engagement as a part of motivational dynamics in the classroom finding that for students “the clearest contributor to engagement was a sense of autonomy” (p. 777). This same sense of autonomy is present in the flow experiences. Fostering learner agency and autonomy in the classroom contributes both to motivation and engagement. Students’ perceptions of the support they receive are related to the social context in the classroom and based on interactions with their teachers and peers. Lodge’s (2005) research about student participation in school improvement has led to the following understanding about classroom dialogue:

It is more than conversation, it is the building of shared narrative. Dialogue is about engagement with others through talk to arrive at a point one would not get to alone. It is not the same as debate where there is confrontation and a suggestion of winning and losing. Relationships are important in dialogue, because they must be able to produce engagement, openness and honesty. (p. 134)

The research about classroom dialogue (Lodge, 2005) extended the traditional connotation of student engagement as recipients of information into being an active participant in one’s own learning process. Another way to describe this can be found in Lodge’s (2008) subsequent article about student voice in the classroom, where the author discussed the concept of “noticing learning” (p. 10). Teacher’s encouragement is crucial for students’ learning process. In addition to acquiring the content skills and knowledge, students are also learning about their own metacognitive skills, and becoming more confident learners. Alcott’s (2017) study showed a correlation between the classroom interactions and learning: “students’ participation in formal education is at least partially dependent on the social cues they receive that legitimize their progress” (p. 19). The teacher, as the subject matter expert of learning process, must help students to understand the ways to intentionally engage in the classroom. Students’ perceptions of teacher support have a central role in increasing engagement. This is how students can become more accountable for their own learning, which has been discussed by other researchers as well (Ferla, et al., 2009; Hämäläinen & Vähäsantanen, 2011;

Lüftenegger et al., 2012). The classroom environment and climate are important parts of the learning experience.

Another aspect of the social context in the classroom is the choice of pedagogy, which can emphasize learner autonomy and dialogue or focus on transmitting facts. Pietarinen, Soini, and Pyhäntö (2014) found that “students’ cognitive engagement was highly dependent both on the dynamic interplay between students and the school environment and, more broadly, on the daily pedagogical practices adopted in schools” (p. 40). The meaningfulness of learning and the emphasis for individual experiences that belong to the 21<sup>st</sup> Century education generates new demands for teacher preparation. Substituting the heavy emphasis on behaviorist approaches in education with learning theories that carry the relational aspects of cognitive, constructive, and humanist values is crucial for increasing learner agency and students’ engagement in their own learning process (Järvelä & Järvenoja, 2011; Kuit & Fell, 2010). There are various ways for teachers to support students’ motivation and learning process. Niemi and Nevgi (2014) note in their research about teachers’ professional competencies how “knowledge is continuously being updated, and it is ever changing” (p. 141). They urge teachers to think like researchers. Finding ways to shift the learning ownership to students and assuming the role as a supporter of their development is aligned with the contemporary focus of forward-oriented education. The world has changed, and schools should prepare students for society in which a simple transmission of known facts is not sustainable instruction or engagement (Sahlberg, 2010).

### **Deep and deeper learning**

Students have individual approaches to learning. The research of Marton and Säljö (1976) acknowledged how these approaches may either help or hinder deeper learning. Deep and surface learning approaches have been the focus of several studies since its conception (e.g. Ramsden & Entwistle, 1981; Trigwell & Prosser, 1991; Lonka et al., 2004; Aharony, 2006). Today deep versus surface learning approaches often are referred to as the cognitive strategies (e.g. Murayama et al., 2013; Kozhevnikov, Evans, & Kosslyn, 2014), which seems to agree with the research done about engagement (Deakin Crick, 2012; Fan & Wolters, 2014; Boekaerts, 2016). The easiest way to learn about students’ engagement preferences is to open a dialogue and ask what students think about their own learning experiences. While students may not have words to describe cognitive strategies, they usually can express their perceptions about meaningfulness of their own learning.

It is important for teachers to know how their chosen instructional strategies help or hinder students’ learning. Biggs (1999) connected deep/surface learning with instructional approaches and suggested that academically inclined “students will adopt a deep approach to learning in their major subjects, often despite their teaching, while non-academic students are likely to adopt a deep approach only under the most favourable teaching conditions” (p. 58). Finding ways to support all students and encourage them to engage in deeper learning is one of

the challenges of contemporary education. Phenomenographic pedagogy focuses on supporting the deep learning approach. Trigwell et al. (2005) described the pedagogy created from phenomenographic research, explaining how it includes two qualitatively different approaches to learning: surface learning and deep learning. Phenomenographic pedagogy aims to support deep learning and engage in “facilitating conceptual change by the learner in context” (Bowden, 1990, p. 1). Every teacher experiences both engaged and disengaged students. It is important to use curricula and instructional design models to build learning environments that support a variety of engagement preferences and provide many different experiences.

One part of agency is enabling students to engage deeper in their own learning by focusing on the learning “process (acquiring mastery) in addition to the outcome (performance)” (APA, 2015, p. 18). Deep learning seldom occurs without teachers’ support. It emerges in the classroom context over time and when students are provided opportunities to engage in their own learning process. Mercer (2011) talks about classroom context as the follows: “Classroom education is normally a continuing, cumulative experience for the participants” (p. 10). The classroom experience can support either deep or shallow learning, depending on the pedagogical approach used. Preus (2012) researched authentic instruction and stated how “administrators and teachers need to be willing to let go of coverage and concentrate on deep learning” (p. 77). The quantity of information provided for students does not necessarily contribute to the quality of learning. There is simply too much information in our current world to be learned deeply, so one role of the teachers will be the selection of contextually important materials. Deeper learning practices focus on helping students to build transferable knowledge. In order to understand how to better prepare students for life, American Institutes for Research (AIR) conducted a three-year long study about deeper learning in 19 high schools, in which researchers Bitter & Loney (2015) identified common strategies to support deeper learning. These strategies included collaborative group work and project based learning, in addition to providing internships to build real-world connections, and using long-term assessments like portfolios. Bitter and Loney (2015) concluded that “deeper learning has the potential to benefit a range of students, not only high achievers” (p. 9).

Boekaerts (2016) discussed how basic engagement processes and self-regulation complement one another, and provided a succinct definition for deep and surface level learning strategies: “It refers to the basic processing operations that describe *how* students react to and interact with the learning material and with people present in the learning environment in order to enhance domain-specific knowledge and skills” (p. 81, italics in the original text). Acknowledging students’ individual differences in learning – instead of focusing on deficiencies – while designing instruction is crucial in the multicultural societies having multiple values. Skaalvik and Skaalvik (2013) researched students’ self-concepts stating that “goal structure may be conceptualized as the students’ perceptions of what is valued in school, we propose

that it may influence the individual student's perception of how he or she is valued and respected by the teachers" (p. 11). This research is well aligned with other studies about performance goals being associated with surface learning and task avoidance (e.g. Anderman & Anderman, 2009; Gegenfurtner & Hagenauer, 2013). Goal orientations may inadvertently promote adopting surface learning strategies. In their critique of achievement goals, Elliot and Murayama (2008) stress the importance of including values, emotions, and perceptions of expected competency, among other measurements, in the discussion of learning. While it is important to improve students' academic performance and ensure that they can complete the tasks they are presented with at school and during testing, it is also imperative to emphasize the diversity of learning experiences and engage students with communicative meaning-making and understanding to ensure that students learn how to make sound judgments. Comparing the learning goals and performance goals, Skaalvik and Skaalvik (2013) showed how their results "revealed a remarkably strong relation between learning goal structure and the students' perceptions of their teachers as emotionally supportive" (p. 16). Teachers should be constantly communicating to students about the importance of deeper learning. APA (2015) warns about using strategies that solely promote performance goals stating that "students who adopt performance goals are motivated to demonstrate that they have adequate ability or to avoid tasks in an effort to conceal a perception of having low ability" (p. 22). To support deeper understanding and knowledge acquisition, it is important for teachers to engage students in strategies that lead towards learning goals.

In their longitudinal research about deeper learning in advanced placement classes, Boss et al. (2011) found that "incorporating a rigorous form of project-based learning can be a helpful strategy for improving student learning and engagement" (p. 22). They were following the principles of transferable learning discussed in *How People Learn* (Bransford et al., 2000) to support the effectiveness of learning process. The contemporary push for deeper learning focuses on the "need for students to develop deeper content knowledge and an ability to apply their knowledge and skills to novel tasks and situations inside and outside of school" (Huberman et al., 2014, p. 7). It is important to remember that students are learning for life, not for school. Therefore, focusing on the literature of supporting the individual learning process in learner-centered environments is a crucial next step in understanding learner agency.

**Learning process.** In this thesis learning is discussed as a process. While establishing a single scientific definition for learning is hard, the following integrated, clinical view of Barron et al. (2015) is widely accepted: "learning as a structured updating of system properties based on the processing of new information" (p. 406). In educational verbiage the learning experience is considered to be constructed from the processes of interaction between the student, the content and the environment followed by acquisition and elaboration of the new information (Entwistle, 1997; Illeris, 2003). The emphasis on viewing learning as a process instead of a

product is an important premise for learner agency. This is due to the connotation of intentional learning as planned subjective activity.

Intentional actions have been the focal point of discussions about learning at least since the days of Piaget (1952) and Vygotsky (1987). In the context of learning process, intentionality describes the difference between students' engagement in schooling and students' engagement in acquiring knowledge (Shum & Crick, 2012). To attend a class and be taught requires very little from the student; merely attending the instruction, whether in physical space or a webinar in an online. However, simply being a recipient of information transfer does not necessarily lead to cognitive engagement in learning.

A temporally constructed engagement denotes forethought, which is the second core property of learner agency. In Bandura's (1999) words: "People have the power to influence their own actions to produce certain results" (p. 156). This references the temporality of agency by expanding beyond the current moment of learning, and considering past patterns and future possibilities (Emirbayer & Mische, 1998). Creativity and inventiveness also are parts of forethought. Agents as actors in different structural environments plan and visualize the possible outcomes based on their previous learning experiences. The temporal difference between students' academic self-concept and students' self-efficacy was researched by Bong and Skaalvik (2003). They described how academic self-concept represents past-oriented, aggregated, and relatively stable judgment about one's self-perceived ability in particular academic domain. Self-efficacy beliefs are based on the academic self-concept and past experiences. This way memories and experiences then become a part of the expectation and anticipation of success in the possible futures visualized during forethought. These self-efficacy beliefs can be either empowering or restrictive for learning.

Fostering initiative is an important part of helping students to engage in their own metacognitive processes that lead to deeper learning. Danielsen et al. (2011) suggest offering psychosocial support for students, because it "may facilitate internalization can be regarded as a particularly important pedagogical approach towards the development of academic initiative" (p. 380). The instructional approaches contribute to the learning approaches in creating environments for deeper engagement. Open dialogue and intrinsic involvement help students choose to actively engage in their own education and drive their own learning experience, and to become more accountable for their own learning (Ferla, et al., 2009; Lüftenegger et al., 2012). Being or becoming responsible for one's own actions is one of the possible byproducts of public education. This should be fostered in the classroom context in order to successfully meet the goal of completing the secondary socialization process during adolescence (Bronfenbrenner, 1979, 1989).

Intentionality as a core property of learner agency (Bandura's (2006) refers to learning being a cognitive process. Intentionality of learning is a part of the planning and prioritizing processes that in current neuropsychology are referred to as executive functions (EF) in the

brain (St Clair-Thompson & Gathercole, 2006; Appelt, Milch, Handgraaf, & Weber, 2011; Miyake & Friedman, 2012). According to Gilbert & Burgess (2008) executive function is “an umbrella term, referring to those high-level processes that control and organize other mental processes” (p. 112), including learning. Sometimes these skills are referred as metacognitive skills, and the American Psychological Association uses the label of self-regulatory skills:

Teachers can help students learn self-regulatory skills by introducing teaching strategies to enhance attention, organization, self-control, planning, and remembering, all of which can greatly facilitate learning. Moreover, the classroom environment itself can be organized to enhance self-regulation. (APA, 2015, p. 18)

Recognizing metacognition and EF as part of the learning process is of outmost importance for contemporary education (Qureshi, Apperly, & Samson, 2010). In the classroom, EF is visible as using cognitive processes that comprise cognitive knowledge and flexible use of tasks and strategies, attention and memory, and self-regulatory processes (Meltzer, 2014). The need for EF is not solely a developmental issue, but relates to adult learners as well. For example Ortega, Gómez-Ariza, Román, and Bajo (2012) have researched the effects of deficit in EF in memory retrieval tasks. Supporting students EF in the classroom helps them learn. The flexibility of cognitive processing depends on emotional well-being. In the classroom teacher has a significant role in supporting students’ cognitive functioning, including emotional well-being (APA, 2015).

Understanding learning to be an intentional activity certainly makes learning a subset of cognitive functioning, which covers memory, cognition and intentionality of actions. This is important within the context of learner agency because in addition to emphasizing the need for teachers to understand EF in the human brain, it refers to the choices provided for the student in the classroom (Gilbert & Burgess, 2008; Giddens, 1984, 1991). However, the lived experience of a student is seldom this good. Lot of unnecessary power is used over students in the contemporary education. Yet, having an opportunity to choose is one of the strongest educational constructs (Leotti et al., 2010).

Creating a plan of action and following it in order to achieve the expected outcome is an important part of both EF and agency. Bandura (2006) expresses it as follows: “Forethoughtful perspective provides direction, coherence and meaning to one’s life” (p 165). Having the opportunity to choose strengthens both agency and EF, especially in a non-punitive environment. Being able to plan for a likely future action is also the basis for deeper learning and cognitive engagement in the classroom (Baker & Gordon, 2014). Making high-stakes decisions is hard, so students should have ample opportunities to practice choosing and forethought during their daily learning activities. Reyes et al. (2012) researched classroom emotional climate, student engagement, and academic achievement. They found that “when a classroom climate is characterized by warm, respectful, and emotionally supportive relationships, students perform better academically in part because they are more emotionally



engaged in the learning process” (p. 710). Understanding students’ perspectives and employing practices that support learners’ agency will help teachers and instructional designers create better teaching-learning situations, which will improve the quality of students’ learning experiences.

**Learner-centered education.** Learner-centeredness is one of the contemporary buzzwords in education, but the need for student-centered instruction in order to enhance learner agency is not a new idea. McKeachie argued in 1954 that a “further dimension upon which student-centered and instructor-centered classes differ is in the degree to which the student feels he can influence his own fate” (p. 145). Students’ need to make decisions about their intentional learning engagement is the basic tenet in agency. This requires for students to have ownership of learning. Researchers Kumpulainen, et al. (2014) investigated students’ co-regulated creative practices in building a communal musical production, examining the nature of constructed chronotopes during the process. Their research participants were 240 students and 16 teachers. Kumpulainen et al. (2014) posed the question how space and time were organized during the process, and found that the use of technology mediated an “emergence of a novel chronotope” (p. 68). Students engaged in sustained collaborative efforts outside of the school hours, demonstrating extended levels of ownership in their creative product and learning. The perception of autonomy, which is crucially important for deeper learning, is emphasized in learner-centered classroom environments. Bransford et al. (2000) define this constructive approach to education as follows: “We use the term “learner centered” to refer to environments that pay careful attention to the knowledge, skills, attitudes, and beliefs that learners bring to the education setting” (p. 121). Acknowledging the individual and sociocultural factors in education is typical for learner-centered classroom environments. Kahl and Venette (2010) did a comparative analysis of teacher-centered and learner-centered instruction using 115 samples of formal speeches in a public speaking course. As the goal of learner-centered education is to shift the focus from teachers to students, the researchers expected students in learner-centered classes to be better prepared for their assessment. After analyzing their data, Kahl and Venette’s (2010) results indicated that “significant differences did, in fact, exist between the quality of outlines prepared by students in learner-centered and teacher-centered public-speaking classrooms” (p. 184). Learner-centered education has also been researched in online settings. Regardless of the mode of instruction, a central tenet in learner-centered education is to have multiple types of assignments and assessments, recognizing that students might have different preferences for demonstrating their competencies (Baker & Gordon, 2014).

Researchers Inman, Wright, and Hartman (2010) studied learning in <sup>1</sup>second life online environment and concluded that it is a suitable platform for learner-centered education because of the possibilities of using “problem-based learning, inquiry, dialogue between peers

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<sup>1</sup> Second Life is a free virtual 3D world. <http://secondlife.com/>

and teachers, access to multiple sources of information, and opportunities for students to demonstrate their understanding in diverse ways” (p. 80). Often learner-centered education is seen to be alternative to traditional teacher-led instruction. The APA (2015) Top 20 Principles were formulated from psychology considered to be the “most essential for facilitating successful classroom teaching and learning” (p. 4). It is important to note that a learner-centered approach is neither a curriculum nor an instructional design model. It is a framework compatible with all kind of curricula.

According to Schweisfurth (2013) learner-centered education is hard to define, due to other educational terminology like progressive education, problem- or enquiry - based learning, constructivism, and child-centeredness being associated with it (p. 9). For the sake of clarity this thesis uses the definition of the American Psychology Association (APA) Work Group of the Board of Educational Affairs framework (1997) of learner-centered practices (Appendix I). McCombs (2000):

"Learner centered" is the perspective that couples a focus on individual learners - their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs - with a focus on leaning - the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners. This dual focus then informs and drives educational decision making. Learner-centered is a reflection in practice of the Learner-Centered Psychological Principles - in the programs, practices, policies, and people that support learning for all. (para 14).

The principles were revised and reformulated (Appendix J) into the “Top 20 Principles for Pre-K to 12 Education” (APA, 2015). The framework and principles (APA, 1997, 2015) integrated research and theory from psychology and education. Understanding how learning happens is crucial for good instruction. APA (1997) learner-centered psychological principles are “consistent with more than a century of research on teaching and learning” (p. 2). The expertise of educational psychology professionals and researchers is invaluable for designing better instruction. The collection of 14 psychological principles was created with research data gathered from over 20,000 students and teachers (McCombs, 2001). We should use the data that has been gathered in classrooms and learn from it.

Learner-centered educational practices focus more on building critical thinking skills than behavioral educational practices, enabling students to practice perspective taking as a part of their everyday learning (Qureshi et al., 2010). The principles emphasize both the subjectivity of learning and the diversity of learners, and the approach is used to clarify what is needed to create positive learning experiences in the classroom in order to foster life-long learning. An important detail in learner-centered practices is the research base and perspective used in formulating the principles (APA, 1997, 2015). Such an approach is often overlooked in traditional teacher-centered education models because the focus is placed on the technical

aspects of schooling, i.e. curricula, standards, instructional design and delivery methods, etc. (McCombs, 2001; Deakin Crick et al., 2007; Deakin Crick, 2012). The educational constructs relying on the behavioral analysis often seem to be formulated solely from the instructional viewpoint, which is very different from the learning viewpoint, situating such instruction as prescriptive following the objectivist/positivist belief of knowledge being transmitted, not constructed. However, this is not the only way to design instruction that follows a standardized curriculum like Common Core State Standards, which focuses on defining the outcomes of instruction. The premise for learning is significantly different in a learner-centered setting: students are seen as subjects of their own learning, not the objects of instruction. Deakin Crick et al. (2015) analyzed data collected from 15 years of using Effective Lifelong Learning Inventory (p. 121). The researchers discussed learning as a complex process emphasizing resiliency, and how students' knowledge acquisition can be supported. They expressed the view of an "agency-based concept of learning in a complex social ecology, where learning resilience is developed and achieved through mindful agency" (Deakin Crick et al., 2015, p. 150). This view of engagement and agency as a part of the ecology of development and learning for students seems to be similar to the growth of teachers as learning professionals in the educational systems. Biesta et al., (2015) note how teachers' experience of "agency (or lack of) is heavily influenced by factors which are often beyond their immediate control" (p. 629). The social ecology of the learning environment to develop positive experiences of agency is even more fundamental for students, who are still in the middle of their secondary socialization process. Following the research-based psychological principles of learner-centered practices (APA, 2015) it is possible to create a learning environment that supports learners' agency in K-12 settings. Understanding learning to be an internal (cognitive) process should lead to very different instructional choices than viewing learning as a defined product or (behavioral) outcome as proof that knowledge acquisition has occurred.

Successful execution of learner agency requires a certain degree of freedom in the classroom. Learner-centered education focuses on supporting the needs of each individual student, allowing freedom for thinking and learning. Bandura's (2006) statement about freedom as "the cultivation of agentic capabilities adds concrete substance to abstract metaphysical discourses about freedom and determinism" (p. 165) carries the intrinsic dignity of being a human, regardless the age of the students in the learning situation. This respect for students' autonomy and subjective personality, culture, and development is important in learner-centered instruction. However, even in learner-centered education there are several layers of intentions that have an effect in students learning and development. Matusov, von Duyke, and Kayumova (2016) conceptualized agency in educational contexts, and stated how "students' subjectivities are constructed towards the conceptions of good and bad, preset by the teachers and/or the curriculum designers in advance" (p. 429). This comment was built on the doctoral work and dissertation of von Duyke (2013) which focused on describing students'

autonomy, agency, and learning interest. The chosen curriculum and instructional strategies have an effect both on students' learning and their development. The interactions in the classroom are a part of larger educational practice, because the "chronotope shapes the time, space, and meaning of a discourses in culturally expected ways making some activity recognizable by staff as a legitimate form of participation" (von Duyke, 2013, p. 246). Creating a classroom culture that supports engagement is a beginning. Autonomy and agency are crucial elements of the learning environment that focuses on fostering students' intrinsic interest in learning. Furthermore, it is important to remember that the learning perceptions are based on individual experiences. Therefore the planned curriculum is different from the delivered curriculum, and from the learned curriculum. Openly communicating the goals and intentions of education is an important part of learner-centered practice.

Predominantly learner-centered instructional practices that support students' self-reflection require sharing with students how their learning is assessed and evaluated, as seen in the APA guidelines (1997, 2015). Learning outcomes can be supported by emphasizing learner agency, providing choices for students about how and what they learn and how that learning is assessed, and treating "learners as co-creators of learning experiences and curricula" (McCombs, 2001, p. 185). Involving students in their own education increases and deepens engagement. The openness of normative competence also is stressed by Elliot and Murayama (2008), who emphasize the importance of discussing perceptions of expected competency in the classroom. To further strengthen learner agency and to create a learner-centered environment, students should be included in the planning process and decisions about how and what they learn, and how their learning is assessed (McCombs, 2000; APA, 1997; APA, 2015). There are several examples in the literature about including students in the planning process (e.g. Susinos & Haya, 2014; Kangas, Ojala, & Venninen, 2015). Researchers Niemi, Kumpulainen, and Lipponen (2015), for example studied how students experience classroom practices. They stated how "participatory pedagogy emphasizes the social nature of teaching and learning. It focuses on developing pupils' skills for active, investigative, reflective and communicative learning" (p, 139). During the research students were asked to rank the classroom activities. Students had ranked some tasks in math lessons less favorable, so the teacher engaged them in a negotiation about learning experiences. As a result of that discussion students got the opportunity to choose in which task they wanted to engage in. Niemi et al. (2015) stated that the dialogue resulted in an increased student activity level: "When they had permission to choose one of the four options, the pupils completed more tasks in the lessons than they had before" (p. 146). Increased student autonomy is a powerful tool used in learner-centered classrooms. Students' perception of being empowered to own their learning is an important factor for engagement.

The way students perceive their learning environment and their available learning strategies has a strong effect on their engagement (Mercer, 2012; APA, 2015; Sharp, 2014).

Furthermore, as agency and learner-centeredness have both been shown to be important for students preparing for the challenges of 21<sup>st</sup> Century, understanding students' perceptions of their learning experiences may help educators improve educational outcomes. At best learner-centered instruction becomes collaborative meaning-making. Arvaja, Salovaara, Häkkinen, and Järvelä (2007) studied collaborative knowledge construction in the classroom context and stated it is "important to understand how individuals interpret the context, how they participate in producing the contexts of joint activity and what the dynamics between individual interpretations and collaborative activity are" (p. 449). Students have different views about their education even within the same educational system, let alone when school conditions are very diverse. Similarly, Wang and Holcombe (2010) found that "students' perceptions of school environment directly and indirectly influence academic achievement" (p. 652). Students attribute values to their educational experiences. In their perception the value of attending school is connected to the perceived meaningfulness of schooling in general (Tuominen-Soini, Salmela-Aro, & Niemivirta, 2008). Students' subjective learning experiences in the everyday classroom context are the building blocks of their education. Based on these experiences, students construct their academic self-images and self-efficacy beliefs. Niemi et al. (2010) researched students', teachers', and parents' perspectives of classroom learning and stated that "the purpose of this analysis and interpretation is to give glimpses of lived pedagogy and to challenge the reader to reflect on his/her own teaching methods or school experiences" (p. 143). This is exactly what every teacher should do; reflect upon the effectiveness of classroom practices to better support students' deeper learning and engagement.

### **Self-direction and self-regulation**

In contemporary education strongly formulated learning outcomes are set from above, without giving students an opportunity to have any control over their own educational goals or how their learning is assessed (APA, 1997; APA, 2015). The need for autonomy was established during the previous strand of literature, but it deserves to be reiterated here in order to make a clear connection between self-regulated learning and learner agency. Feelings of belonging increase the self-regulation, suggesting a link to school-related well-being (Blackhart et al., 2011). According to Boekaerts and Cascallar (2006), self-regulation "plays a central role in influencing learning and achievement in school and beyond" (p. 199). Self-regulated learning (SRL) is a widely researched concept, and its contributions to quality learning outcomes are well documented (Zimmerman, 2008; Volet et al., 2009; Hadwin & Oshige, 2011; Lüftenegger et al., 2012).

Self-reactiveness is the third core property of agency (Bandura, 2006). Having learning ownership, constructing a course of action, and being able to modify the plan is an important process for continuous engagement. Hence the ability for independent actions and reactions is essential for autonomous and agentive learning. Bandura (2006) discusses self-monitoring and

self-regulation stating: “Agents... are also self-regulators” (p.196). Being able to achieve one’s goals is important for agency and engagement, and having a certain degree of autonomy to modify the plan is a requirement for this to happen. Munford and Sanders (2015) emphasize the developmental aspect in agency and self-regulation as the follows: “Learning how to enact agency positively, required that youth could make sense of their circumstances, could exert some control over these and begin to craft new pathways.” (p. 632). Self- monitoring and self-regulation are skills that must be practiced.

Existing research recognizes several components of agency, and a focus on self-regulated learning in the classroom has been identified as a major contributor to increased quality of learning in several recent studies (Edwards & D'arcy, 2004; Reed, 2008; Ferla et al., 2009; Lüftenegger et al., 2012). Recent research confirms this view of learner agency. Helle et al. (2013) researched the relationship between autonomy, self-regulation and achievement in a longitudinal study of high school students (N = 368), and stated how the results “underscored the centrality of perceived self-regulation” (p. 263). Their results align well with already existing research emphasizing subjectivity to be a crucial part of the learning experience. Students’ perception of autonomy has an effect on their learning (Helle et al., 2013), but the “perceived self-regulation and personal interest are only partially explained by achievement” (p. 263). Students’ perception is the keyword in this finding. Supporting learner agency allows researchers and educators to focus more on students’ perceptions of their learning and then use that understanding to inform educational practices. Ultimately this will help teachers and instructional designers create better teaching-learning interactions (Mercer, 2011). Focusing on students’ perceptions improves the quality of classroom experiences by making learning more reciprocal. It also increases the opportunities for students’ voices to be heard, and emphasizes deeper learning over surface learning.

Researchers Danielsen et al. (2011) studied how psychosocial support in the school environment relates to students’ self-regulated learning and found that “relatedness is likely to facilitate internalization of the value of schoolwork” (p. 397). Their findings are well aligned with other research of learner autonomy and psychosocial support discussed earlier in this literature review. Danielsen et al., (2011) had a nationally representative sample of 13 - 15 year old (N = 3125) students, and their findings emphasized the importance of students’ ability to take initiative in the positive development during schoolyears. This strengthens the implications other researchers have reported about the importance of supporting self-regulated learning during schoolyears (Zimmerman, 2008; Pietarinen et al., 2014; Järvelä & Järvenoja, 2011; Wang & Holcombe, 2010; Volet et al., 2009). Fortunately, teaching students to become self-regulating learners is very doable. Travers et al. (2015) researched the effect of delivering an intervention of self-regulation to final year students. They reported how “Students made substantial gains in self-insight and became more skilled in monitoring their own thoughts and habits, including study habits” (Travers et al., 2015, p. 238).

Successful self-regulation can occur in learning situations when students have a sufficient amount of freedom. Researchers Niemi, Kumpulainen, Lipponen, and Hilppö (2014) studied participatory pedagogy and found that when students are allowed to recognize others' need for help "they will also start to take more responsibility in the classroom and, in this way, develop their agency skills through their everyday learning" (p.13). Sitting in your place until you are called does not support self-regulation, or provide opportunities for active learning. Scholars of SRL are researching how to support teachers to modify classroom practices to enable self-regulation (Zimmerman, 2008). However, this is a significant change in the power structures in the classroom, and thus requires the use of constructivist and humanist learning theories over behaviorist theories in both instructional design and instructional delivery methods (Merriam et al., 2007; Dick, Carey, & Carey, 2009). In order to make a justifiable choice, students must have sufficient information before choosing, which presents the need for the personalized design of instruction. Having choices makes students to become contributors in their own education. According to Zimmerman (2008), there is one question that launched SRL: "How do students become masters of their own learning processes?" (p. 181). Maybe classroom practices that support learner agency could be a part of the solution.

**Dialogue and collaboration.** The importance of dialogue is stronger in learner-centered education that supports students' deeper learning than in traditional teacher-led classrooms. One reason may be the emphasis on language as the tool for socially constructing the classroom reality. Mercer (2011) discussed learning reasoning skills as the follows: "Sociocultural researchers commonly emphasize that language is a cultural and psychological tool which (in Vygotskian terms) links the intermental and intramental - so, for example, classroom dialogue could have an important influence on the development of children's reasoning" (p. 3). Reasoning skills are an important part of learning process, because they are intersubjective and needed in several school subjects, as well as in real life situations (Stroupe, 2014). Preparing students for life requires dialogue in classroom. Students cannot only be recipients of information. Researchers Ruohotie-Lyhty and Moate (2015) discussed dialogue as an important part of the learning process as the follows: "Perceptions of others as well as others' perceptions of self, contribute to the ongoing dialogue with self. On the other hand, the ongoing dialogue with self mediates perceptions and relationships with others" (p. 58). Learning process cannot be separated from self-reflection. To support deeper learning there should be ample opportunities for students to engage in dialogue and collaborate with each other. This may require extra effort from the teacher's part. The research of Hämäläinen and Vähäsantanen (2011) has led them to "argue that these productive dialogues do not necessarily emerge unassisted" (p. 176). In classroom this means creating an environment where students can ask questions that could deepen their understanding.

Edwards and D'Arcy (2004) make an excellent point about agency becoming visible in the classroom when students are allowed to interact; recognizing other students' need for help and

reciprocally asking for support from others is one form of learner agency. They discuss the phenomenon as relational agency: “It is an ability to seek out and use others as resources for action and equally to be able to respond to the need for support from others” (Edwards & D’Arcy, 2004, pp. 149-150). There is a direct connection to the learning theories that inform agency. Learning is a subjective and social phenomenon, as seen in the Vygotsky’s (1987) sociocultural theory discussing the Zone of Proximal Development (ZPD). Edwards and D’Arcy (2004) state as the follows: “Relational agency is therefore based on a fluid and open-ended notion of the ZPD” (p. 150). Viewing teacher as the learning facilitator certainly fits to the image of utilizing the zone of proximal development in the classroom. Supporting students’ agency by providing opportunities for self-regulation and co-regulation is an important change in education. On the same notion, Arvaja et al. (2007) discussed the ecology of collaborative activities, emphasizing the immediate environment and available resources. Describing how the learning situation evokes emotional reactions, the researchers stated how it is “important to understand how individuals interpret the context, how they participate in producing the contexts of joint activity and what the dynamics between individual interpretations and collaborative activity are” (Arvaja et al., 2007, p. 449). This ties the collaborative learning into learner-centered education, where dialogue is an important pedagogical tool.

Hämäläinen and Vähäsantanen (2011) discussed the facilitation of deeper learning and recognized the need to support teachers in the instructional change “from monologic to dialogic actor, which includes orchestrating, scaffolding, supporting and structuring students’ shared knowledge construction processes”( p. 174). The focus of education in this case has shifted from transmitting information to collaborative meaning-making. Marton (1981) describes collaborative meaning-making and asserts that it can be seen as an instrument for describing human thinking. One approach to build learner agency is to provide students with choices to support intrinsic motivation and promote deep learning through classroom dialogue (Anderman & Anderman, 2009). Meaning-making happens in dialogical space. Ruohotie-Lyhty and Moate (2015) define this concept as: “dialogical space, we mean a space in which knowledge and assumptions can be re-assessed and enriched through discussions” (p. 46). Challenging and reassessing one’s own knowledge and assumptions is a building block for deeper learning.

Participating in the meaning-making in classroom helps students to engage in their learning. Niemi et al., (2014) discussed in the findings of their research how students perceived learning meaningful when they had opportunities to work and solve problems together. The pedagogical understanding of classroom experiences and environments that strengthen cognition and deeper learning focuses on collaboration and social interaction. Olson (2003) describes this pedagogical approach as being “constructed around shared intentions and intersubjectivity” (p. 224). The emphasis on intersubjectivity lies in the importance of social collaboration that, in the classroom, is visible in the form of cooperative activities and



opportunities for students to learn from one another. These shared intentions are important for deeper learning because they harness students' motivation, their perceptions of the meaningfulness of learning, and their preferred engagement strategies. Students learn different self- and co-regulation strategies that are embedded into daily teaching-learning activities and interactions (Volet et al., 2009). The shared learning experiences and strategies can become socially constructed self-regulation. Järvelä, Järvenoja, and Veermans (2008) studied co-regulation and observed social reinforcing of motivation among their participants. When students have group project they have to find productive ways to collaborate. By combining individual and group level perspectives of motivation and goal orientations, the researchers approached understanding the dynamics of socially shared learning. The results for the research Järvelä et al. (2008) conducted showed how "in a socially shared challenging learning situation an individual group member can play a leading role in activating motivation regulation" (p. 132). Students' interactions and dialogues have an effect on learning, and in order to facilitate knowledge acquisition teachers must be aware of the intersubjectivity in the classroom. Järvelä and Järvenoja (2011) conceptualized "self-regulation as a dual individual-social phenomenon" (p.351). They discussed the expansion of the individual concept of self-regulation in the framework of shared learning processes. The assumption of Järvelä and Järvenoja (2011) was that in "collaborative learning, individual group members represent interdependent self-regulating agents (cognitive angle) who at the same time constitute a social entity that creates affordances and constraints for group and individual engagement (situative angle)" (p. 351). As learning in the classroom setting is always a socially shared phenomenon it is subjected to co-regulation as well as self-regulation. Learner agency is developed in social situations (Gillespie, 2012). Therefore, shared intentions and co-regulation should be discussed in the classroom in order to find ways to help students to support themselves – and each other – in engagement that leads in deeper learning. Simply assigning pairs or groups for projects is not enough. The co-regulatory process of motivation, in which students and teachers embark on a shared journey to learning, is one way to steer the focus away from a behaviorist approach in the classroom (Hadwin & Oshige, 2011).

**Students' well-being in educational settings.** School-related well-being is another important concept to be considered while researching the learning experiences. Ryan & Deci (2000) emphasize the meaning of well-being in relation to motivation. In spite of the existing research, students' subjective well-being at school often is an ignored factor in learning. Reyes et al. (2012) stated: "when students are in emotionally unresponsive learning environments, they feel disconnected from school and are less likely to be engaged. As a result, academic performance suffers" (p. 709). Closely related to the subjective perception of well-being is the learner-centered approach, where the premise is for students to "construct their own meanings, beginning with the beliefs, understandings and cultural practices they bring to the classroom" (Bransford et al., 2000, p. 124). However, the classroom learning is a shared

experience, so finding means to mediate the individual needs and those of the whole group is often the challenge. Researchers Bradshaw et al. (2011) studied subjective well-being of school aged children in 25 European Union countries, exploring variations and finding how socio-economical and emotional deprivation was “negatively associated with young people’s relationships with their classmates” (p. 554). The subjective well-being relates to general life satisfaction. At best public education could work as an equalizer, improving students’ future prospects. Considering Maslow’s (1943) hierarchy of needs, it seems obvious that students’ well-being needs must be met before higher-order thinking can occur. Learning difficulties are associated with lower school-related well-being (Bradshaw et al., 2011). Students who enjoy going to school tend to learn better. If the relational or subjective component of classroom environment is missing, students’ learning might be hindered. Meeting students’ belonging needs in addition to the knowledge acquisition is a holistic approach to education that support students well-being and learning in the classroom (Blackhart et al., 2011).

Students have different views about their education even within the same educational system, let alone when school conditions are very diverse. Wang and Holcombe (2010) found that “students’ perceptions of school environment directly and indirectly influence academic achievement” (p. 652). Students attribute values to their educational experiences. In their perception the value of attending school is connected to the perceived meaningfulness of schooling in general (Tuominen-Soini et al., 2008). Meaningful learning experiences contribute to students’ school satisfaction. The American Psychological Association (2015) uses the concept of emotional well-being to describe parts of school satisfaction:

The components of emotional well-being include sense of self (self-concept, self-esteem), a sense of control over oneself and one’s environment (self-efficacy, locus of control), general feelings of well-being (happiness, contentment, calm), and capacity for responding in healthy ways to everyday stresses (coping skills). (p. 23)

In addition to emotional well-being, the learning environment must support students’ deeper learning and engagement by providing adequate material resources and appropriate cognitive challenges. Researchers Arvaja et al. (2007) recognize the difficulties of classroom collaboration, saying how “one fundamental issue in these analyses is what kind of social interaction can be called collaborative and how the collaborative opportunities and individual abilities are matched” (p. 458). Collaborative knowledge construction is one part of building the school-related well-being. Students’ emotional and cognitive engagement is socially embedded into their classroom learning experiences.

The school-related well-being is a subset of the general framework of human well-being which, conceptualized by White (2010), emphasizes three components: “the material, the relational, and the subjective” (p. 161). These three components can be seen as dimensions of subjective well-being, and situationally constructed with the surrounding culture and social environment. A comprehensive School Well-being Model was proposed by Konu and Rimpelä

(2002), who conceptualized ideal learning environment to be a place “where well-being, teaching/education and achievements/learning are interconnected” (p. 82). In their model, the concept of school well-being is built on three components: school conditions and the material needs of students, social relationships, and means for respect and self-fulfillment. There appears to be overlap between this school well-being model and the human well-being components according to White (2010). Meeting the material needs of each student is a societal question that extends beyond this research project. However, hunger has been identified as a learning problem in recent studies (e.g. Turner & Chaloupka, 2015; Anzman-Frasca, Djang, Halmo, Dolan, & Economos, 2015). The relational need in classroom can be supported with collaborative activities. To maintain positive social relationships and perceptions of education the classroom learning should include open discussions about how motivation and self-regulation support shared intentions. Students’ perceptions of their well-being at school contribute to their engagement and learning. For a student, classroom environment certainly influences the social construction of school-related well-being, and as such is considered to be one factor in academic outcomes. Pietarinen et al. (2014) remind about the importance of autonomy in school satisfaction and well-being: “Providing students with opportunities for acting as accountable authors within interactions is likely to facilitate their school engagement” (p. 49). Their study explored both teacher-student relationships and the effects of peer relations on engagement. As discussed previously in this literature review, students’ self-regulation and co-regulation are important factors in their learning and agency. Similarly, the need for self-fulfillment is often combined with increased need for autonomy. The interrelations between cognitive and emotional engagement should not be ignored in discussions of school-related well-being, which is very individual concept. Students have different needs. Yet, every student should have the experiences of well-being and engagement.

Helping students enjoy learning begins by providing them with metacognitive tools and skills for deeper learning. One of these foundational skills is the “development of clear and thoughtful communication” (APA, 2015, p. 27). Classroom discussions should include this metacognitive and practical joint reflection in order to demonstrate how uniquely students interpret and understand the topic to be learned, and to support deeper learning and agency in a co-regulated learning environment. Co-regulation requires open dialogue because participation is a “complex process that combines doing, talking, thinking, feeling and belonging” (Wenger, 1998, p. 65). Co-regulation connects to the final part of school well-being, which is the authorship of learning and gaining the means for self-fulfillment. This deeply meaningful part of learning is tightly related to active engagement which can be seen as the daily actualization of the learning process (Blackhart et al., 2011). Engagement is a very complex phenomenon, and while widely researched, there does not appear to be only one agreed definition. However, engagement in one’s own learning process is different from participation in classroom activities.

Researchers Upadyaya and Salmela-Aro (2013) reviewed engagement research and concluded that “the high level of school engagement is positively associated with academic success, and negatively associated with students’ ill-being, such as depressive symptoms and burnout” (p. 136). Academic success and school-related well-being are parts of a larger social context. However, supportive classroom environment may increase students’ learning related enjoyment, essentially aiding school attainment. Upadyaya and Salmela-Aro (2013) emphasize the importance of this: “If schools do not provide developmentally appropriate educational environments for adolescents, they do not offer the kind of social context that continues to motivate students’ interest and engagement and, consequently, negative developmental changes may result” (p. 142). As discussed previously, school years are the time when secondary socialization process takes place. Therefore, in addition to providing the conceptual knowledge, schools must also support students’ development as human beings becoming integrated into surrounding society. Social-emotional skills develop during school years, and this socialization process also relates to learning engagement. Upadyaya and Salmela-Aro (2013) state that “sense of engagement students experience at school can also be shared by other students in the same peer group” (p. 141). The important concepts of self-regulation, co-regulation, school-related well-being and engagement are deeply interrelated.

## **Conclusion**

Literature indicates that for the 21<sup>st</sup> Century learning experiences to be effective, they must allow autonomy for learners and support engagement that involves students on both psycho-social and intellectual levels. Considering the complexity of learner agency, and how concepts in educational theories overlap, it is important to keep in mind that while labels may vary, the content stays quite unchanged. Personally meaningful learning experiences support engagement and positive outcomes of development and academic achievement. In order to grow life-long learners, students must be provided with opportunities to make decisions of their learning and engagement. Deakin Crick et al. (2015) express it well: “Self-determination theory connects mindful agency with autonomy and awareness but also incorporates the self-regulation of processes – meta-cognition and emotional self-management” (p. 152). In a knowledge society learning cannot end with a graduation ceremony. It has to become a personal process of growth in order to engage with the change that constantly occurs in the modern world. The role of engagement in one’s own learning cannot be overemphasized. Linnansaari et al. (2015) concluded this as the follows: “educators should take into account how to support students’ self-efficacy, increase their interest and offer appropriate challenges. These three pre-conditions can be seen as a bridge to engage students” (p. 202). Teaching today is different from what it was in the past. The contemporary infrastructure of information shapes students' worldviews as well as learning (Shum & Crick, 2012). Educational practice must embrace this infrastructure and use the information to advance students’ learning.

### Chapter Three: Methodology

I considered phenomenography to be the most suitable research method for this inquiry into students' perceptions of their learner agency. The first reason for choosing phenomenography was the way it "focuses on the human-world relation" (Collier-Reed & Ingerman, 2013, p. 252), instead of attempting to describe the phenomenon itself. Focusing on understanding the perceptions people have about their learning experiences is different from trying to understand the phenomenon of learning. In addition, phenomenography identifies variation in perceptions. It does not explore the reason for variation, but focuses on describing the lived experiences, thus supporting the inquiry about students' perceptions to learner agency. The distinguishing characteristic in phenomenographic analysis, when compared to other qualitative research, is creating categories of description as the final result of the inquiry. The categories of description are then consolidated into an outcome space, which is a display of the variation in collective ways of perceiving the phenomenon and the relationships between the categories (Marton & Booth, 1997). Furthermore, in phenomenographic research the central research question reflects the unit of analysis –conception – seen here as learner agency. Observing or expressing the conception directly is impossible, because conceptions are individual representations of learned knowledge connecting with lived reality (Marton & Pong, 2005). Students' perceptions of learning experiences are their verbalized conceptions. Therefore, I aimed to identify the variation of conceptions by inquiring about and describing the perceptions interviewees had of their learning experiences. Gaining more knowledge about students' perceptions of their own learning is crucial for improving both educational outcomes and students' individual learning processes.

#### Research Questions

The central research question and four sub-questions were designed to help understanding and describing of learner agency, as perceived by the high school seniors.

**Central question.** What are students' perceptions of their learning experiences?

**Sub-questions.** What kind of learning interactions do students experience in the classroom? How do students choose to engage in the classroom, and how do they describe the intentionality of their own learning? What are students' perceptions of life-long learning? What instructional choices do students describe as being impactful for their self-direction and self-regulation?

#### Paradigm

Qualitative research was the most suitable paradigm for researching students' lived learning experiences due to the epistemological and ontological underpinnings of subjectivity in both learning and research. Questions about people's experiences and the inquiry into the meanings of these experiences clearly belong to the qualitative research paradigm (Patton, 1990). Aiming to understand the variations in students' perceptions of learner agency situated the research into the constructivist-interpretivist paradigm (Ponterotto, 2005). However, the

nature of phenomenographic research is more relativist in nature. The focus in phenomenography lies in the human-world relationship, because individual experiences are considered to be situational and contextual (Guba & Lincoln, 1994; Schuh & Barab, 2008). The theoretical framework of this research also relates to the Social Construction of Reality (Berger & Luckmann, 1966), the duality of the structure and agency (Giddens, 1984, 1991), and human development as perceived in the ecological theories of Bronfenbrenner (1979) and Bronfenbrenner and Morris (1998).

The question of human agency is related to the tensions between individual effort and the social order. Considering the subjectivity of students' perceptions about their learning experiences, it is important to try to understand how to improve them. According to Patton (1990), understanding the problem helps humans better control their environment. This applies straightforwardly to understanding students' perceptions of their learner agency in the classroom. Phenomenography, as the methodological choice for researching this elusive phenomenon of learning, provides an interesting viewpoint into the "limited number of qualitatively different ways in which various phenomena...are experienced, conceptualized, understood, perceived and apprehended" (Marton, 1994, p. 4425).

### **The Role of the Researcher in Phenomenography**

Phenomenography is built on the interrelation of theoretical and empirical research strands and emphasizes the importance of engaging in "an abductive type of analysis, moving between empirical data and theoretical concepts to let one illuminate and contribute to the other" (Limberg, 2008, p. 613), allowing the researcher to use prior knowledge to understand the context. While conducting this study, I actively tried to understand and describe the perceptions that students have about their learning experiences. During the interviews I tried to understand students' perceptions, comparing that to the knowledge I have of learning process. An important part of phenomenographic interview is engaging in empathetic listening and trying to understand the viewpoint of the participant (Ashworth & Lucas, 2000). The interview itself is a social construction. Engaging in a dialogue during the interviews helped co-create a reality in which collaborative meaning-making could happen. It was fascinating how each interview was unique, yet the themes discussed remained the same. Students' conceptions of learner agency were "constructed through interaction *between and among* investigator and respondents" (Guba & Lincoln, 1994, p. 111, italics in the original text). Where phenomenography differs from phenomenology and other research approaches belonging to the constructive paradigm, is the next step where the researcher tries to categorize the different ways people perceive the investigated phenomenon (Marton & Säljö, 1976; Säljö, 1979, 1988).

## Research Design

This research employed phenomenography as the research method for understanding and describing the lived learning experiences of high school students. Qualitative research in general and phenomenography in particular are suitable for an in-depth inquiry for students' conceptions of their learner agency. The objective is to identify variations of conceptions by categorizing and describing the perceptions and experiences of interviewees. Phenomenographic analysis begins with a holistic approach of looking for meaningful phrases in the context of all transcribed interviews in order to create a "pool of meaning" (Marton, 1994, p. 4428). These phrases are collected in initial pools of meaning, following the themes emerging from the data. It is important to be mindful about the context of the interviewee's reflection while formulating the themes. The second level of analysis adds another context for each quote from transcripts: the interview, from where it was extracted, and the category (pool of meaning), where it is placed. The transcripts are read through again, using the pools of meaning as a lens to understand the collected data. This helps to emphasize the relationships between the different ways of experiencing the phenomenon and give voice to students' perceptions of their learning experiences. Several rounds of reading and comparing the data between the original transcript and its pool of meaning helped me understand the variation in perceiving the phenomenon, ultimately leading to creation the categories of description in the outcome space.

## Research Tradition

Qualitative research was the viable option for understanding learner agency by describing the lived learning experiences of high school seniors. Phenomenography seemed to be the best choice as it was born within the educational sciences, and has since spread to other disciplines. Researching learning is different from many other research interests because learning as an internal phenomenon cannot be directly observed or measured. Each student has a unique perception about learning, a diverse academic history, and certainly an individual set of expectations for any given class they attend (Prosser, 1993). This led researchers Marton and Säljö (1976) to discover the two basic approaches to learning – deep and shallow. Since their original research, phenomenography has been used to demonstrate the use of these two approaches in students' perception of what is expected in tasks, and then choose their engagement level accordingly (Biggs, 1999; Kember, Leung, & McNaught, 2008). Furthermore, the phenomenographic approach is focused more on learning than teaching, (Bowden & Marton, 1998), which situates it very well in study of learner agency. Surface (shallow) learning is about memorizing the content, whereas deep learning is about understanding the relationships between concepts. Therefore, strong learner agency as a transformative learning

experience, shares the qualities of deep learning approach.

Phenomenography holds the intrinsic idea of the process and content of learning being naturally separated, and that the transfer of learning occurs when the content of learning is described from the second-order perspective (Marton, 1981). This makes phenomenography pedagogically focused, which causes it to be clearly distinctive from other qualitative research methodologies. Both the analysis and the pedagogy are based on the understanding of learning as a subjective experience. Marton (1981) explains this as follows: “the question of the content of learning does not necessarily concern the *correct* meaning ... but rather the meaning the *students* put into the derivative” (p. 182, italics in the original text). Therefore, the analysis does not focus on finding a truth, but on describing students’ perspectives. Understandably we could label some of these perceptions as misconceptions; they may not align with the scientific facts taught in the class and thus may diminish the quality of learning the content. However, in order to understand the experiences students’ have, the researcher must not question the validity of the life-world expressed in the interviews (Ashworth & Lucas, 2000). The two principles above – bracketing conceptual baggage and focusing on individual experience – are in alignment with phenomenology and qualitative inquiry in general, presenting the requirement for reflexivity. The traditional view of phenomenography defines it as an empirical study of describing the qualitatively different ways in which learning is experienced and conceptualized (Marton, 1994; Marton & Säljö, 1976; Sin, 2010). Entwistle (1997) expressed it as follows: “The challenge of collecting and analyzing data which would adequately portray qualitatively different learning outcomes produced the approach which subsequently became phenomenography” (p. 131).

In phenomenography the description of the phenomenon is the focus of the researcher and students’ perceptions of their lived classroom experiences and this fall perfectly into this methodology (Säljö, 1979). The basic assumption in phenomenography is that experiences integrate thought, emotion, and action (Uljens, 1993). Framing learning experiences within a student’s perspective allows a researcher to engage in unfolding the relationship between a student and learning as a phenomenon, and focus on “describing the phenomena in the world as others see them, and in revealing and describing the variation therein” (Marton & Booth, 1997, p. 111). The integrity of phenomenographic research relies on the researcher’s awareness of attempting to understand what other human beings have experienced.

The basic ontological assumption of phenomenographic research is that “it takes a relational (or non-dualist) qualitative, second-order perspective, that it aims to describe the key aspects of the variation of the experience of a phenomenon” (Trigwell, Martin, Benjamin, & Prosser, 2000, p. 77). Learner agency focuses on understanding the importance of students’ perceptions in formal education and modifying instructional practices accordingly. Socio-cognitive constructivism, which underpins learner agency as seen in Bronfenbrenner’s (1979) theory about socialization processes, emphasizes “the primacy of the phenomenological world



over the real environment in steering behavior” (p. 24). Hence the used methodology and the framework of learner agency share the ontology and the philosophical perspective situated between relativism and pragmatism (Schuh & Barab, 2008).

The theory of social construction of reality (Berger & Luckmann, 1966) further strengthens the interpretivist stance in understanding participants’ subjective perceptions of learning experiences. Every human has their own understanding of the surrounding world. As Green (2005) points out, these multiple realities assume “a subjective epistemology in which the transactions between the researcher and participants create understandings that are value-mediated or subjective” (p. 6). Furthermore, the phenomenographic approach aims to shift the focus of educational practice from teaching to learning (Bowden & Marton, 1998). This addresses the axiology of the pedagogical questions and the need for deeper learning experiences and engagement discussed in this research.

### **Participants**

This research focused on students’ conceptions of learner agency and described the subjective learning experiences of high school students in a rural school district in Pacific Northwest, using individual interviews as the data collection method. The process of contacting students is described below. Nine 18-years-old students expressed their interest in participating in the research, and all nine were interviewed. Five of the interviewees were females, and four were males. There were no distinguishable gender differences in the interviews. No information was collected about students’ ethnicity, socio-economic status, academic standing or family relations. In a small sample, these specifics might have been misleading.

### **Protection of Human Subjects**

Protecting research participants was important throughout the study and this was accomplished in several ways. The interviews were conducted in a public place, outside of the school campus. All participants were asked to sign an informed consent form. They were reminded that they did not have to answer a question if it made them feel uncomfortable, and that they could stop the interview at any given point. Furthermore, data collection did not begin before the Internal Research Board (IRB) of Northeastern University had approved the procedures for recruitment, obtaining consent, and data collection.

**Confidentiality.** All participants were assured that every effort would be made to maintain the confidentiality of their identity during the research process. Teachers and school administrators did not know the names of the students who participated in the interviews. No personal information was published in the research report, and all students were assigned a gender-neutral pseudonym during the interview. Students’ socio-economic status, race, academic standing or family relations were not discussed during the interviews to protect their

anonymity. In order to further protect the participants, the research findings were written in a way that does not reveal the gender of the interviewee, or the school subject they were discussing. This additional step also protected the anonymity of the teachers in the school district.

**Managing and verifying data.** All printed data was stored in a locked file, and all electronic data was stored within a password-protected computer and smartphone. The transcriptionist signed a confidentiality agreement and only saw the initial pseudonym of the student. All participants had the opportunity to read their own transcript in order to verify the accuracy of the data they provided. This member-checking supported the validity of data collected with thematic interviews.

### **Obtaining Informed Consent**

Participants were given information outlining their rights regarding participation and the potential risks involved. They were assured that their participation was completely voluntary and that they could stop at any moment they wanted. Furthermore, throughout the research process, participants were provided with the opportunity to ask questions, clarify the purpose of questions and research goals, and to withdraw from the study. Participants were asked to sign an informed consent form (Appendix A), which indicated that they understood the purpose of the research and the procedures of data collection.

### **Obtaining IRB approval**

Before the data collection was initiated, the Doctoral Thesis Proposal (DTP) was approved by the advisor and second reader, and the application for approval for use of human subjects was sent to Northeastern University IRB (Appendix B). Additional supporting material was included in the submission: the participant consent form (Appendix A), interview questions (Appendix C), and a written permission from the assistant superintendent of the school district (Appendix D).

### **Recruitment and Access**

An invitation to participate in the research was posted in the high school bulletin after the DTP was approved by Northeastern IRB. The assistant superintendent and the high school principal were very supportive, and posted the call for participation in both the online school bulletin and the print version of the bulletin. I also visited in six advisory classes to recruit participants and hand out printed calls for participation and informed consent forms to be shared with their parents. The call for participants also was on a website created specifically for this research project. Students who were interested in participating either sent me a text message or email to schedule an interview. Students chose the time for the interview, as well

as the place for it, as long as it was a public space. Nine students expressed interest in participating in this research, and all nine were interviewed.

### **Data collection**

Collecting data with semi-structured interviews is typical for phenomenography, and the purpose is for the researcher and interviewee to explore the phenomenon together and engage in dialogue during the interviews (Marton, 1994). This method is also called a thematic interview (Rubin & Rubin, 2011; Alastalo, 2005). The procedure is to present open-ended questions in the beginning of the interview, and semi-structured questions towards the end, encouraging interviewees to think aloud and reflect on the phenomenon. This allows researchers to hear more of the verbalized conceptions and not to take answers at face value, making assumptions about what the interviewee said (Säljö, 1997). The interview protocol can be found in the Appendix C.

Data was collected with individual interviews that lasted about 60 minutes each. The students chose to do the interviews at coffee houses in town or at the local library. Interviews were digitally recorded with two devices: a voice recorder and the researcher's cell phone. Original recordings and the recording process were stored in the researcher's password protected computer and an external hard drive. Only the researcher had access to the personal data of participants. Excerpts from interviews were displayed under a pseudonym in the research report. All interviews were transcribed using a professional transcriber due to the researcher being a non-native speaker of English. It is important to have excellent verbatim transcripts in order to ensure the reliability and validity of the analysis. All participants were assigned a pseudonym, and no personal information was accessible to the transcriptionist.

In a phenomenographic data collection, the questions posed during the interview should emerge from the interest of the interviewee (Ashworth & Lucas, 2000). The initial questions required for IRB approval were the starting points for discussions. Additional questions were then asked to better understand students' experiences. Ashworth and Lucas (2000) also remind interviewers about the importance of "engaging in empathic listening to hear meanings, interpretations and understandings" (p. 302).

### **Data storage and Management**

The audio files, their transcripts, and scanned copies of the informed consent forms from parents of the students were stored on a password-protected computer with a back-up copy stored on an external hard drive. The transcripts and data analysis documents were kept on file, separate from the audio files.

## Data Analysis

The focus of this research was on students' perceptions of learner agency. The perceptions were considered to be students' verbalized conceptions of their learning experiences. The analysis focused on describing these perceptions in the mode of second-order interpretations while emphasizing on discussing the "experience-as-described" (Ashworth & Lucas, 2000, p. 415). It was essential to pay close attention to variations and the internal relationships of the categories and conceptions, in order to ensure meaningfulness of the descriptions and quotations representing the meaning in the context of each individual interview (Åkerlind, 2005). Eco and Sebeok (1983) call second-order interpretations "meta-abduction" (p. 205), which brings together abductive analysis with the basic idea of phenomenography.

The objective of phenomenographic research is to identify variation of conceptions by describing the perceptions interviewees have of their experiences. Understandably, the interviewees have individual ways of engaging and as Hallett (2014) reminds us, they demonstrate "variation in intuition, insight and ways of thinking" (p. 211), in addition to experiencing learning. Emphatic listening, asking clarifying questions, and bracketing the researchers' own assumptions were important parts of the data collection and analysis, as the goal was to understand and describe participants' perceptions of agency, as expressed in their descriptions of their learning experiences. In phenomenography the descriptive categories must emerge from the data, therefore it is essential for the researcher to be observant and open to understanding what interviewees are trying to express. However, according to Säljö (1988) the phenomenographic analysis is about discovering the qualitatively different ways participants experience the phenomenon, therefore the researcher must have sufficient subject knowledge. Limberg (2008) also emphasizes the importance of engaging in "an abductive type of analysis, moving between empirical data and theoretical concepts to let one illuminate and contribute to the other" (p. 613). Abductive reasoning aims to produce mental constructs. In addition to observation, abductive reasoning allows the researchers' previous knowledge of the phenomenon to inform the guiding principle. Yet, the content knowledge should not dictate the direction of the abductive analysis (Peirce, 1899).

**Phenomenographic analysis of the research data.** Analysis in phenomenography is a very iterative process that begins with reading and re-reading the interview transcripts in order to comprehend the whole before creating pools of meaning. The goal is to create categories of description, but it is important to avoid drawing conclusions too quickly (Åkerlind, 2005). Therefore, the researcher must understand the expressions in two contexts simultaneously; within the interview where the expression belongs, but also within the emergent theme that it gets grouped with during analysis. The themes then become pools of meaning, and the process continues with a "comparative analysis with the aim of identifying differences and similarities

linked to each aspect” (Limberg, 2008, p. 613). The objective of phenomenographic analysis is to understand the variation in collective ways participants experienced the phenomenon. The results are presented in a parsimonious outcome space, which displays the logical relationship for the categories of description (Trigwell et al., 2005). Each interviewee talked about several different learning experiences, so the variation is about experiencing the phenomenon, not about categorizing students. Most students expressed views belonging to several categories in the outcome space.

The final step of analysis is to construct the categories of description that formulate the outcome space, or as Marton and Booth (1997) describe it: “the complex of categories of description comprising distinct groupings of aspects of the phenomenon and the relationships between them” (p. 125). These categories are related, either hierarchically or with another type of logical relationship, to describe the way phenomenon under investigation is experienced. Marton and Booth (1997) created criteria for categories of description:

1. Each category should reveal something distinct about a way of experiencing a phenomenon.
2. Each category should stand in a logical relationship with other categories.
3. The number of categories in a set is determined by the extent of variation.

The themes that emerge provide internal and relational meaning and structure to categories.

This is the part of analysis in which the non-dualist principle becomes obvious:

phenomenographic researchers strive to describe the human-world relation, not the phenomenon itself. Cope (2004) emphasizes that “a phenomenographic analysis also considers any relationship between the different ways of experiencing the phenomenon” (p. 6), which presents the requirement for the researcher to create a hierarchy for final categories.

**Using the phenomenographic process to analyze data about students’ perceptions of their agency.** The initial reading process began after all the data had been collected and transcribed. Becoming familiarized with the data required several rounds of reading and re-reading the transcripts. As mentioned above, phenomenographic analysis is a very iterative process. Åkerlind (2005) discusses how common it is for researchers to use the first attempt at creating the categories of description as a stepping stone for deeper understanding. This proved to be both helpful and frustrating, but the continuous comparison to better understand the meaning became easier as the work progressed. While there is no definite technique to conduct phenomenographic analysis, I decided to follow the example of Sjöström and Dahlgren (2002) who employed seven analytical steps in their research. The steps of familiarization, compilation, condensation, preliminary grouping, preliminary comparisons, naming, and outcome space, will be described below in detail.

### **Emergent Themes and Pools of Meaning**

Familiarization was the first step in the analyzation process. Reading and re-reading the transcripts produced an understanding of the initial themes about the qualitatively different ways students conceptualized their learning and engagement. I was trying to be very careful not to end up “disconnecting the utterance from its communicative function in context” (Säljö, 1997, p. 187). In order to have a constant visual cue for knowing the origin of each quote in the pool of meaning, the interview data was color-coded. Each interview was assigned a different colored font in order to anchor the quotes in their original interview and to minimize the risk of decontextualizing the meanings from the original transcripts (Bowden, 2000). These transcripts were printed out to make it easier to engage in understanding by writing into the margins and highlight important passages, in addition to reading and re-reading the transcripts.

During the second step, compilation, the reading became more focused, and similarities began to emerge, forming the initial pools of meaning. The original phenomenographic method calls for the researcher to find the expressions interviewees use while reflecting on their experience. The researcher must place these expressions in the same file, or physically cut them out from interviews, in order to create a pool of meaning (Marton, 1994). In order to avoid decontextualization, the quotes from students were extracted as full sentences when possible, or clusters of sentences to represent the theme while creating the pool of meaning. The first two steps of analysis resulted in files with colorful text snippets. An example of this can be found in Appendix L.

Condensation was the third step in the analysis process. Comparing the snippets in the pool of meaning and re-reading those in the original context helped me to create an understanding about what was meaningful and important for students in their learning experiences. Reducing the original sentences or clusters into keywords helped focusing on the essential qualities of students’ learning experiences. Furthermore, to ensure that none of the important utterances got ignored while creating the pools of meaning, I contracted Jellybean Enterprises to write a program designed to remove punctuation, labels for verbatim transcription, and interviewer’s questions by using standard regular expressions programming. The program produced 76 pages of text (about 49,000 words) from the original 179 pages of interviews (about 77,000 words) using Calibri 11 as the font, with 1.15 line spacing. This made analysis significantly easier because moving back and forth between different interviews to formulate the pools of meaning was faster. The full interviews were open in another window, allowing me to check on the verbatim transcriptions and back-and-forth exchanges as needed to be sure of the original context while working on data condensation.

The fourth step of the iterative analysis process was the preliminary grouping of emergent themes. This was done to constitute the categories of description from the “meaning units of experience” (Marton, 1986, p. 43). In the beginning it seemed that the themes students were talking about were compliance (or obedience), their rebellious acts in the

classroom, their choices to disengage, and their own strong tendencies for self-direction and interest in learning. The initial pools of meaning constructed from themes were obedience, rebellion, and self-direction. Figure 1, below, displays the initial appearance of the emergent themes as pools of meaning in the form of a triple Venn diagram.

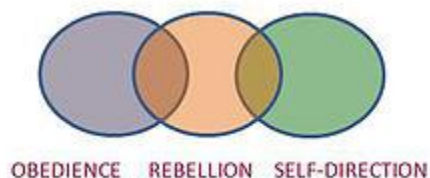


Figure 1. Initial pools of meaning.

These first pools of meaning were used as stepping stones into a deeper understanding of how these high school seniors perceive their learning experiences. The direct quotations from interviews are added to the analysis process below to exemplify the meaning of each initial category of description. The individual quotes were brought together at this point to make sense of each pool of meaning. The preliminary categories are listed displaying extracted phrases to provide the reader examples of analysis process. This was a necessary step because there was not another researcher coding the data.

Trying to be a good student and follow the rules seemed like a theme. Students discussed their obedience to classroom rules in the first pool of meaning, adapting to school rules. Casey and Robin were discussing their perceptions of learning being different than what appears to be valued in the classroom. They were trying to adapt to the school's way of learning, but they did not feel successful. Focusing on memorizing facts and reproducing them in tests, or copying the notes in the class did not meet their own perception of what learning was. Finlay verbalized this difference on the value level but still described doing what was expected – like Jaime and Alex did too – in the quotations in the table 1 below.

**Table 1**  
**Pool of meaning 1. Adapting to school rules and expectations.**

Themes	Examples of trying to be a good student and follow the rules	
<b>Different learning perceptions</b>	“And I do try to learn in the way of wanting to learn...but at the same time it does end up being for tests.” (Casey)	“Most of the time though, the tests are more like hoops to jump through.” (Robin)
<b>Following rules</b>	<p>“Memorization and retention are -- what are valued in education. Not so much the drive to learn. I’ve noticed.” (Finlay)</p> <p>“But I do -- I write those things down, but as I’m writing them down, I’m not really paying attention to the words that I’m writing down; I’m just writing down to -- I’m ... I just -- I do it basically because I have to.” (Alex)</p>	<p>And so I just kind of like, I don’t know, I just went through the motions of learning.” (Jaime)</p> <p>“I spend like three to four hours before the test, to look.... I have a feeling there’s -- there’s something I didn’t learn; there’s -- something that I didn’t go through.” (Devyn)</p>
<b>Perceived benefits of classroom activities</b>	“I can see how this could help me in the future. Not every day, but yeah, I could see how it could help.” (Nicky)	“It makes me want to do everything that I can do, to get a better grade in a class.” (Emery)

The perceived benefits of classroom activities helped students follow directions and be compliant in their own learning. Following the rules and trying to behave according to perceived expectations caused stress for some students. In this first pool of meaning, students wanted to comply with classroom rules and meet expectations their teachers and parents had communicated or implied. This pool of meaning focused on students talking about how they behaved as expected, even if it did not always make sense to them.

The second initial pool of meaning was about rebellion toward the school as institution. This theme emerged from the things students wished to change about their everyday learning. In this second pool of meaning students used strong words to express their thoughts about learning experiences that they considered to be negative. Another part of this pool of meaning labeled “rebellion” was criticism. Students were not always provided with choices for engagement in the classroom, hence they discussed the criticism they had toward school learning, and being rebellious against school practices, as seen in the table 2, below.



**Table 2**  
**Pool of meaning 2. Rebellion against practices**

Themes	Examples of negative experiences and criticism	
Negative experiences	<p>“There was just way too much stress that the teachers put on us. Like some of it, like the punishments or whatever, for not doing something were really harsh.”            (Nicky)</p>	<p>“I mean I -- I hate learning -- the learning format in school; just the way they teach things, it just -- uh.” (Alex)</p>
	<p>“It’s really difficult, and I don’t really like them. Yeah. Well, I hate xxx.” (Devyn)</p>	
	<p>“So essentially we were just sitting, staring at a screen, taking notes, and we’d go home and work it out on our own.”            (Jaime)</p>	<p>“I think his teaching style didn’t match up with my learning style? Cause it was mostly just him pointing at a board and talking?” (Emery)</p>
Criticism	<p>“On the whole, I think learning is better if it’s, uh, self-directed and more free-form.”            (Robin)</p>	<p>“There was no flow to the information -- it was taught in blocks of information that were just kind of fed to us.”            (Finlay)</p>
	<p>“I don’t like how they punish students. It honestly does not make any sense.”            (Casey)</p>	

In these sentences the undertone suggests that students wanted to learn more, but the classroom situation did not support their learning. The utterances collected to this pool of meaning reflect the rebellious thoughts students had about some specific practices at school. It must be noted, that the pool of meaning constructed for rebellion focused on students’ thoughts, not actions of resistance.

The third initial pool of meaning focused on cases in which students talked about their own learning preferences and the ways that they help themselves learn. Self-regulation and awareness of their own learning needs were the emergent themes for this pool of meaning labeled as helping oneself to learn. Initiating engagement was evident in the students’ perceptions, as well as their preferences for hands-on learning. Assuming stronger responsibility over their own learning was another theme that contributed to the pool of meaning for self-regulated learning experiences. Knowing one’s own strengths as a learner is important for self-directed and self-regulated learning, as seen in the table 3, below.

**Table 3**  
**Pool of meaning 3. Ways to help oneself to learn**

Themes	Examples of engagement, self-regulation and preferences	
<b>Initiating engagement</b>	“Things that I -- I learned myself are the ones that I’m interested in and will use.” (Robin)	“Sometimes teachers aren’t the best at teaching you; sometimes you have to teach yourself ... I would say I learn by just figuring it out my -- myself, I think.” (Jaime)
	“That piqued my interest into student-driven learning and I realize that I have done a lot of that -- or some of that already.” (Finlay)	
<b>Self-regulating</b>	“I knew what I was supposed to do; I made a timetable for myself.” (Devyn)	“I noticed that I have to be paying attention and actually listening, actively. To get the information. And understand.” (Alex)
	“If I don’t understand, I like talk to my teachers.” (Quinn)	
<b>Knowing one’s own learning preferences</b>	“When I’m doing something, -- I -- I tend to, like, learn it better.” (Emery)	“So I’m like a hands-on learner? If I can do it, and if I can picture it in my head and understand, like, how everything works with each other, then I really get the concept down. So I have to like, I have to do it and I have to understand it to -- to know how to -- to know how everything works.” (Jaime)
	“Hands-on experience that I got -- being able to be in control and actually learn by self-teaching and self-experience.” (Casey)	

This third pool of meaning displayed students’ perceptions of enjoyment when their learning was self-directed. It showed extended engagement beyond the classroom context. While creating the pools of meaning, I compared the emergent themes to the transcripts. It was essential to understand the quotes from the transcripts simultaneously in two contexts: the interview from where it was extracted, and the pool of meaning in which it was placed. Knowing that the phenomenographic analysis is very iterative, I decided to move to the next step, and use these pools of meaning as preliminary categories. While doing so, I also anticipated the need to revisit the initial pools of meaning as the emergent themes.

The fifth step in analysis was the comparison of categories, where the overlaps and boundaries of the categories were the focal point of investigation. At this point I color-coded the interviews with highlights to provide a visual display of the frequency of these three categories. Seeing the three colors while re-reading interviews supported my understanding of how these themes related to the whole narrative of each individual interview. It was important to keep in mind the different ways interviewees described their learning experiences in order to understand how they perceived their own learner agency, and to avoid attaching meanings that were not present in the interview. After re-reading the transcripts and making the initial triple Venn diagram (Figure 1) as the frame of reference, it became obvious that the overlapping

areas between categories were important pools of meaning. The three categories could neither cover the variation nor be specific enough about qualitative differences in the perceptions students were expressing, so I went back to reading and re-reading the data.

This second round of steps four (preliminary grouping) and five (preliminary comparison) in the analyzing process produced lots of notes, and the next level pools of meaning began to take form. The overlapping areas between obedience, rebellion, and self-direction were now labeled as pools of meaning for “criticism” and “initiative,” and the picture looked more complete. Switching between the pools of meaning and categories during the analysis process helped me to see things I had omitted earlier. The new set of pools of meaning revolved around compliance/obedience as passive act of following the rules, criticism for school practices or instructional strategies, rebellion against punishments and missing real life connections, initiative and interest for learning, and agency as self-directed connection-seeking reflective learning. Images about memoing while comparing the pools of meaning with transcripts can be found in the appendix K. This second round of steps four and five resulted in understanding that there were more than the three sets of qualitatively different ways to perceive learning experiences to be found in the data.

At this point I decided it was important for me to be sure that I still had an unbiased big picture of my data. In the interviews, every student discussed features and practices that either help or hinder their personal learning. It was helpful to look into frequencies of the words and expressions students were using. I did not expect to find excessive commonalities between interviews due to the fact that thematic interviewing allowed each student to use their own words to describe their learning experiences. Having the transcripts cleaned with standard regular expressions programming from interviewer verbiage and transcription labels allowed me to run a search for frequencies of students’ words and phrases in the text of 49,000 words. The results of this search helped me to look more closely into certain parts of interview transcripts, where the participants were using the frequent words.

Comparing the listed words and phrases to the full transcripts ensured the appropriate use of these words in formulating the final categories for the outcome space. It is worth noting that most of the frequent words are positive (e.g. learn, help, own, enjoy), and those words appear in almost all interviews. Eight students discussed the emphasis on memory or memorization in their learning (total of 30 times), and when this finding is combined with the frequency of “test” (mentioned 49 times and by all participants) it appeared to refer to reproductive learning. The word “hate” was included to the list because of the relatively high frequency of 7 (mentioned 15 times in two interviews), compared to, for example, to the word “engage” appearing with lesser relative frequency of four (28/7). Furthermore, the most frequent phrases used in the interviews were predominantly negative (“you have to”, “I have to”, and “don’t want to”), except for the positive expression of “I want to” appearing 28 times throughout all nine interviews.

The Table 4, below, displays some of the most commonly used content words and phrases in the transcripts, after the interviewer's words and transcribing labels were omitted.

Table 4

*Frequency of most used content words and phrases in the interview transcripts*

Word	Amount of students using it	Times mentioned in the interviews
Learning	9	173
Learn	9	166
Help	9	135
Interest	9	91
Understand	9	77
Grade	9	75
Study	9	53
Own	9	50
Test	9	49
Enjoy	6	49
Memory/ize	8	30
Engage	7	28
Knowledge	8	27
Depend	8	25
Hands-on	5	22
Hate	2	15
Phrase	Amount of students using it	Times mentioned in the interviews
You have to	9	35
I have to	8	31
I want to	9	28
Don't want to	8	18

It was very helpful to have a table of most frequently used words in the data. They provided additional tags to search and compare the meaning in students' expressions. It was easier to focus on the human-phenomenon relationship, and either list all the times one interviewee used the word in a sentence, or to move from one interview to another to compare the qualitative differences in students' perceptions while reformulating the pools of meaning towards final categories of description.

The third round of steps four (preliminary grouping) and five (preliminary comparison) in the analyzing process combined the rebelling and criticism, because of the negative phrases students used most often during their interviews (You have to, I have to, Don't want to). This seemed to describe the engagement strategies used, as observed through the lens of students' awareness of their own learning. The transcripts were color coded one more time to reflect this new awareness of experiencing learner agency. The categories used were rebelling, belonging/owning, and self-direction. From this last round of doing preliminary comparisons by re-reading the interviews with these filters, it became evident that belonging and owning are two fundamentally different categories with unique characteristics, and rebellion might actually

be detachment. This realization led to reformulating categories and re-organizing the pools of meaning, looking for more expressions that fit into the new categories. The descriptive categories began to look clearer. This last round of analyzing the data produced four different, yet related categories of description of learning experiences. Each category has two or three themes, formulated from the pools of meaning used to construct the category.

Naming the categories is the sixth step in the process. Finding appropriate names for categories to emphasize their essence was challenging. The category of “belonging to school community” was especially hard to formulate. Belonging seemed to be too strong word to describe the category, so “blending in the school community” could have been a more suitable one. I also considered renaming that category as “buoyancy” to describe the way students navigated through their experiences. Essential for step six was to understand the internal attributes of each category, and whether there was a logical relationship between the categories. The final categories in the outcome space for students’ perceptions of learner agency are *detachment from learning*, *belonging to the school*, *synergy of learning ownership*, and *unbound ubiquitous learning*. The owning category needed to have the word synergy in it due to the descriptions of more collaborative way of learning and engaging in that category. While self-direction is important for the category of *unbound ubiquitous learning*, the perception is really about that learning happens anywhere and everywhere, all the time, regardless of the instruction that students receive in the classroom. The final step of phenomenographic analysis is the discovery of the outcome space that is a representation of perceiving the phenomenon. Identifying the variation of the conceptions students have about their learning experiences resulted with an outcome space of four perceptions that were qualitatively different. The seventh step of the analyzation process is described in detail in Chapter Four. The final outcome space is displayed in Chapter Four as a table of students’ perceptions about the components of learner agency by categories of description, and in Chapter Five as a visual conceptualization of the hierarchical relationship of descriptive categories of learner agency.

### **Trustworthiness and Verification**

According to Patton (1990), “The validity and reliability of qualitative data depend on the methodological skill, sensitivity and integrity of the researcher” (p.11). This research was built on transparent procedures for both data collection and analysis. The methodology is congruent with the philosophical base of the research and was very visible from the beginning of research design in the axiological choice of emphasizing the degree of freedom in quality learning, in the epistemology of using socio-cognitive constructivism for learning theory, and also in the ontology of personal subjectivity in our socially constructed reality. These choices are aligned with the theoretical framework of learner agency.

The Guba and Lincoln's (1994) rigor criterion for qualitative research has four parts that, according to Sin (2010), are as follows: credibility, fittingness, auditability, and confirmability (p. 307). This criteria is met in phenomenographic research when there is "correspondence between the way the respondents actually perceive social constructs and the way the researcher portrays their viewpoints" (Mertens & McLaughlin, 2004, p. 106), when the results can be transferred to other contexts, when the results consistently underline the relational nature of learning (Ekeblad & Bond, 1994), and when the quotations from interviews illustrate the critical features of categories and clarify the differences between categories (Limberg, 2008).

Semi-structured, or thematic, interviews were used to collect deep, descriptive data by presenting open-ended questions in the beginning and directing the participants in the end (Rubin & Rubin, 2011; Alastalo, 2005; Kvale & Brinkmann, 2009). The importance of the theoretical framework and the researcher's knowledge of the phenomenon cannot be overemphasized because only by keeping the descriptive criteria in mind can the interviewer focus on both being present in the interview and redirecting the interviewee to describe the phenomenon.

I have strived to truthfully portray the participants and their viewpoints of learner agency, while keeping their identities anonymous. To accomplish this each interviewee was assigned a gender-neutral pseudonym, and all references to teachers or school subjects were omitted from the description. It is important to remember that the conception of agency is the object of investigation, not the participant, and the aim is to describe the phenomenon via the expressed experiences of the participants. The relational and subjective nature of learning is one of the main themes in this research, further emphasizing the importance of participant anonymity and stressing the inconsequential nature of race, gender, socioeconomic status or academic standing.

Participants received a copy of their own transcripts, and were asked to notify the researcher if anything they said was not captured accurately. The professional transcriptionist did excellent work, and no revisions were needed. My personal bias for the subjectivity of learning, and creating learner-centered environments for instruction could be a threat to the internal validity of this research. I strived to verbalize my thinking, and I bracketed my opinions while analyzing the data. I did not have any pre-existing relationships with the interviewees.

## **Conclusion**

The purpose of this research was to examine high school seniors' perceptions of their learning experiences in order to describe how students conceptualize their learner agency. The goal of the study was to expand on existing research about learner agency, and to uncover current structures and practices that support students' emerging agency. The ultimate goal was to understand how to provide more opportunities for students to engage in deeper

learning. Phenomenographic research was conducted using the theoretical framework of learner agency as the lens to describe the conceptions that students have about their learning experiences and how they perceive their leaning engagement. Interviewing nine high school seniors provided rich, deep data for analysis. This data allowed me to create categories of description about students' perceptions of their learner agency.

## Chapter Four: Research Findings

The purpose of this research was to describe the lived learning experiences of high school students in order to understand their perceptions of learner agency. The multifaceted construct of learner agency was analyzed through students' expressions of their learning experiences at a high school in the Pacific Northwest. While the interview questions focused on students' learning interactions and engagement in high school, most interviewees reflected on their learning experiences throughout the K-12 system, which also indicates the importance of life-long learning in students' perceptions. This perception of the importance of learning also was included as a pre-conceived perception guiding the formulation of research questions, and discussed during the interviews.

The high school used in this study, Port Angeles High School, is located in a rural town in northwest Washington State. The high school has 1,150 students, 50.7% of whom are male and 49.3% of whom are female. Minorities represent 21.4% of the student body, and 41% of students belong to low-income households (Office of Superintendent of Public Instruction, 2016). The median income in Clallam County, where the district is located, was \$47,008 in 2014, according to the United States Census Bureau (2016). Nine high school students participated in the interviews – five of them were females and four were males. No demographic questions were asked, and they were each assigned a gender neutral pseudonym in order to protect the participants' anonymity in a relatively small community.

In a classroom context students' perceptions of their own learning are an important factor for engagement and deeper learning. These perceptions are a large part of emerging agency and the experience of having ownership of learning. There seems to be insufficient research available about the perceptions that high school students have of their own learning experiences.

In order to highlight the problem of practice, this chapter is divided into three sub-chapters. The first sub-chapter describes the participants, and provides a narrative portrait of each student's conceptions of their own learning, based on the perceptions vocalized and inferred in the interviews. The second sub-chapter describes the phenomenographic analysis and the emergent themes of students' perceptions about learner agency, which later evolved into the categories of description. The third sub-chapter discusses the categories of description about how students perceive their learner agency, as it was verbalized in the interviews and then transcribed for the analysis.

### Description of Participants

The following descriptions of all nine participants are a combination of the researcher's notes during the interviews and understanding gained from listening to and re-reading the interviews. The descriptions have summaries from interview notes and direct quotations from the interview transcripts. Students elaborated on their learning experiences and described



situations in which they found learning to be meaningful and beneficial, but also situations in which they had less interest and just followed the school rules. While all participants were high school seniors, they did reflect on learning experiences throughout their schooling.

**Casey.** In the interview, Casey defined learning as getting experiences and changing how one thinks. Learning also could mean becoming smarter or more efficient, or a way to broaden one's horizons. Casey identified hands-on learning as the personally preferred learning approach. Casey also criticized core high school classes for a lack of opportunities for student participation and self-direction, which made school learning something that is done for the tests, not for learning itself.

Casey has always liked learning, and thinks there should be less punitive actions at school and more opportunities for students to learn from their own mistakes. Casey talked about teachers who were kind and emphasized trial and error in learning, which made it easier for students to learn from their mistakes and approach challenges as learning experiences. During the interview, Casey talked about a core class task in which students had to teach the class a lesson about a topic. This made Casey feel uneasy because demonstrating competency was important in other studies and work, and teaching others something one has learned – but yet not mastered – did not fit into Casey's perception of competency. Casey plans to attend college after high school.

Casey talked about school learning being only for tests and grades. Casey provided an example of being interested in a certain school subject but not being encouraged to pursue it after getting near-failing grades in it. Then Casey talked about another subject and stated that in spite of passing all the tests, doing all the homework, and getting a good grade, the learning was not applicable outside of class. The expected competency for that class did not cover real life application, even though there would be ample opportunities for using the skill outside of school. Casey identified lectures as the hardest form of instruction because checking your own understanding was hard in that environment and note-taking was a distraction from learning, as simultaneous listening and writing was not efficient. Casey said that life was about learning and experiencing things, and one should never stop learning.

**Emery.** In the beginning of the interview, Emery defined learning as having interest in things, knowing, and being able to understand. At school, Emery appreciated discussion-based classes, real-life applications, and passionate teachers. Emery favored hands-on learning to lecturing, where students are just being "spoken to" with no opportunity to interact and build their own understanding. Emery mentioned another case in which the teacher's instructional style did not meet the students' learning style, and how teachers might not be effective in spite of a being experts in the subject they teach. Emery had tried to seek help after school but still did not know what could have helped in getting a better grade in that subject. Emery felt that instructions for group work were vague and that students had not really understood what they were doing, or how to apply what they were learning. In another example from a different

class, Emery described how the teacher had moved from one group to another, asking if students needed help. Emery perceived this as being more effective instruction due to the increased interactions.

Emery described how observing others in the classroom is important for learning and being engaged. Reading or listening to a lecture is not very helpful for staying focused and engaged. Emery practiced actively while studying, including doing problems and using flash cards, in addition to reading and reflecting. In class Emery tried to come up with things to say about the topic, especially when participation was a big part of the grade. Emery also talked about disengagement in the form of “spacing out” and thinking about other things, hoping for the day to be over. Emery appreciated classes in which students talked more and the teacher asked open-ended questions to help students think more about the topic. Group activities were good, too, because they allowed students to learn from each other and understand different perspectives. However, sometimes Emery ended up in a group with students who did not want to do the work, and Emery had to either suggest how to divide up the work or do all the work alone.

In Emery’s opinion it was important to integrate technology in various forms into learning, including using cell phones as calculators, viewing flashcards, answering polls, and finding ways to engage in friendly competition among peers. Emery believes that adults must keep learning because things are changing, and while something may always have been done a certain way, that might not be the best way of doing it. Emery emphasized the importance of having an interest in life but did not see that connecting well with school work, except for when students were sharing their opinions in discussion, or when students assessed each other’s work.

In some high school classes, being engaged was discouraged by the class structure. An example of this was when a teacher kept moving at a fast pace, and only answered questions briefly, not going into enough details to help students to understand the topic better. Emery also described classes that moved so slowly that students were not challenged and it was easy to get an A, noting that instead of an easy A it would have been nice to learn more. Emery plans to attend college after high school.

**Nicky.** In the beginning of the interview Nicky described learning as being about gaining helpful skills that can be used in the real world. According to Nicky, learning should be something that pertains to life because that is more satisfying than learning something that can be forgotten the following day. In unimportant classes, Nicky tends to “zone out” and think about something else. Nicky likes high school, but expressed a desire for more school funding so that the materials would be new and the buildings more comfortable. Nicky provided an example of students reading from PDF files that cannot be saved, so it is impossible to continue where you left off last time. Nicky is waiting until after high school to worry about working and continuing studies.

Nicky's learning perception changed as a result of studying in high school. Middle school practices were hard for some students, said Nicky, and provided examples of teachers putting too much stress on students or punishing students who did not do homework, including a time when a teacher humiliated a student in class. Nicky was not able to stay after school for tutoring during middle school, and getting to high school made it possible to relax and focus on learning. Nicky does not need to study too hard in easy and interesting subjects. In other subjects Nicky looks over some books, but not worrying too much has been a practical and comfortable approach. Nicky defined classroom engagement as raising one's hand and participating in discussions. However, uncomfortable classes led to zoning out. Nicky identified as being a decent student in most school subjects, saying that a subject is well-learned when there is no need to study it. Not doing homework and getting a slightly lower grade is okay for Nicky because studying less takes off a lot of stress. Nicky says there is too much group work in some classes, pointing out the downsides of being thrown in with a group of people who have opposing views on school.

Nicky prefers active and interactive classes. About lifelong learning, Nicky observes that teachers are always learning, but adults in the real world need to start learning again. Nicky sees grades as the currency of schooling, and while school is much easier than the real world, the latter is better because at least you get paid to suffer there. Nicky emphasizes the difference between school and real life throughout the interview.

**Devyn.** Devyn has experienced international education and compares those experiences to the ones at Port Angeles High School. In the beginning of the interview, Devyn defines learning as interpreting language and gaining skills and knowledge. Communication with teachers and other students is important in education, says Devyn, because it helps students who cannot just learn from reading. Devyn works hard and studies diligently, finishing all assignments on time. Getting test results back is important for Devyn, as those show how much learning has occurred, and that will help Devyn prepare for future tests. Devyn always prepares for the best but expects the worst. Going through all materials is very time consuming, but hard work is rewarded with positive results.

Studying in the classroom is hard for Devyn because of all the distractions caused by the other students. In spite of this, Devyn likes group work, communicating with other students, dividing up an assignment, combining the pieces and, discussing the task. Comparing opinions with other students is important to Devyn to see different points of view.

Devyn also mentions journals written about school trips as enjoyable learning experiences. These visits, and writing about them, give Devyn a broader view and extended understanding of the topic. Remaining curious and researching topics by finding additional information is one measure of engagement for Devyn. Toward the end of the interview, Devyn admits to hating reading but still working hard to read all assigned texts.

Grades are the reason that Devyn studies so hard, partially because of parental

expectations, but also to continue on to college and have a better future. Studying is stressful, but it seems to be the only option for people to have a good life. Devyn thinks that some adults are too concerned about their work and stop learning and being curious about other things.

**Quinn.** In the beginning of the interview Quinn defines learning as gathering information. Later Quinn adds knowing into the definition as something more than just memorizing things for a few weeks until the test. Real learning happens if you still remember the content a month after taking the test, whereas memorized information must be re-learned in the future. Quinn also mentions that testing once a month does not let students know what their actual progress is. More interactive learning happens outside of school, and there the outcome is more visible, and monitoring your own progress in gaining skills and knowledge is easier. Quinn is actively engaged in the local community and plans to attend college after high school.

Regarding negative learning experiences, Quinn discusses having to read textbooks and take a test at the end of chapters, the objective being to memorize the general idea of each chapter. This resulted in a desire of never having to open a textbook again. Quinn describes classroom engagement as taking part in the conversation, taking notes, and asking questions from teachers, especially if something is unclear. Outside of school, Quinn makes notes or charts to support memory and learning, but does not engage in those kinds of activities at school. The reason for this is the difference between learning a subject that you are passionate about versus learning what you are required to learn at school. Quinn talks about some students who do not want to go to school, but still attend because they have to. According to Quinn the motivation is different when learning for fun.

To improve school learning, Quinn suggests that students should have more choices, which would probably make learning feel less like a requirement. Creative assignments, like videos and projects, appeal more to Quinn because students have more choices regarding the final product, plus the possibility to apply additional techniques like music into the task. Group work is nice, too, even though it is a little nerve-wracking to trust part of one's final grade on the group, especially if one does not know all group members well enough. In group work, Quinn also has learned how to deal with people who have different approaches, and to tolerate people that one does not like.

Quinn thinks people should never stop learning because even adults must be open to new ideas, and there are always new discoveries. According to Quinn, adults should learn things they want to, in addition to what they have to learn for their work.

**Alex.** The interview begins by Alex stating how wonderful learning is, defining it as a process of gaining new knowledge and growing as a person, and how school learning does not really work to support that process. Students are so different, yet teachers try to teach everyone in the same way. Alex continues with the notion of hating how school is more about passing than learning, and how impossible it is to for students to learn when they are forced to

sit for eight hours and just absorb things. According to Alex schools is very oppressive because students are forced to think in a certain way and do things a certain way. Learning makes students change because every new thing they process brings new realizations that could be life-changing. Learning changes perception.

Alex defines engagement as actually wanting to learn – having a desire for it. While engaging in the classroom, Alex takes the notes that students are supposed to take. Alex does not read the notes during study but still learns. In the classroom Alex does not volunteer to participate but observes the teacher and other students for visual cues and body language to get information about what are the most important things to learn. Understanding and making connections to what had been learned previously helps Alex absorb information in class. According to Alex true learning is still something more – it is about developing as a human being and becoming who one really is.

Alex is somewhat concerned about grades because society expects students to graduate in order to be successful in life, and graduation is the main expectation of Alex's family. Alex wants to travel and see other cultures and places. The best learning experiences are from travels – like seeing the Grand Canyon – and other firsthand experiences.

**Finlay.** Throughout the interview, Finlay reflects on learning experiences and ties them to higher-order concepts. Finlay articulates what contemporary classroom learning is and what it could or should be. According to Finlay, the segmented learning model in which information is offered in bricks or chunks makes learning harder. It would be easier to learn if there was a logical flow in the information, so that the content to be learned would be easier to consume, by attaching the details to high-order concepts. At the end of the interview, after shutting off the recording, Finlay also states that the assessment and evaluation system seems to measure something other than it is probably intended to measure, and hopes things will be different in college.

Regarding learning experiences, Finlay explains that when a class piques middling interest, it is nice to do supplemental studies outside of school and have one piece of new information lead to another. Finlay talks about a made-up language, which led to interest in grammar and linguistics, and eventually geography and history, and how languages reflect culture. Finlay's earlier encounters with grammar were quite negative because it was presented as segments and unrelated chunks of information. In the case of learning a foreign language, it also was presented with lots of linguistic jargon. Finlay likes learning in context and emphasizes the joy of seeing how things connect. According to Finlay, a class is fun when it is strung together so that the progression feels natural. Finlay reflects on the effects of good and bad learning experiences, indicating how those resulted in more personal involvement in one's own learning. Finlay emphasizes dialogue and reciprocal interaction in class, and talks about the need for students letting the teacher know if given information is not understandable, but also about adjusting one's own expectations.

Finlay states how memorization and retention are valued in education, and how pieces of information are not tied to bigger concepts. According to Finlay, there is not enough emphasis on the drive to learn at school, therefore sometimes choosing to be a “classroom sheep” is the easiest way to acquire the information and pass the class. This is not what education should be, though, as it does not allow students to learn naturally. Finlay also talks about learning as going further and further from one’s own comfort zone to learn more, and how adults should keep learning because it is so incredibly fun.

**Robin.** In the beginning of the interview, Robin articulates learning as being the acquisition of something new to oneself, and mentions several areas of personal interest. Robin talks about learning being something very comprehensive, yet detailed, like finding a missing piece to a puzzle and finally being able to see the whole picture. According to Robin, the worst things about school are when one does not learn anything, homework being repetitions of procedures or low-level concepts, and tests becoming hoops to jump through. This contributes to Robin’s view of schools as degree-granting institutions in which teachers follow whatever the curriculum happens to say. After class, Robin does pursue further information at home about some school subjects or topics, if they happen to be interesting, which creates a better connection between one’s own learning and the curriculum taught. At school, there is usually insufficient time to develop deeper understanding of something. Robin hopes the situation will be different in college.

Classroom projects, in Robin’s opinion, are applications of learned content that help solidify learning and allow students to engage in dialogue. Robin also discusses running mental simulations in order to improve learning of content by finding an application to enhance transfer, stating a strong personal preference for self-directed and free-form learning over formal education. Robin describes a tightly organized and inflexible learning experience – like learning multiplication in elementary when the restrictive format suppressed learning – as an adverse effect of school education.

Robin talks about the importance of life-long learning, saying that stopping learning is not a sign of healthy mind because human mind is set up to learn, and there is so much to learn. Emphasizing tests above all else promotes the problem of learning being just about memorization. Losing the natural inclination to learn creates the mentality that one learns only for the short term because one has to. Robin uses “half-learning” and “learning that you lose” to describe this mentality and expresses societal concerns about the results of short-term learning.

**Jaime.** Throughout the interview, Jaime emphasizes how learning and accumulating knowledge caused the growth from a freshman to a senior, in addition to time-related maturity. Jaime wants to attend college after high school. In the classroom, Jaime prefers to be immersed in the content, have the teacher to present a problem, and work through the problem – either individually or with other students – to understand how things relate to each

other. This dialogic approach works better for learning than when the teacher does the analysis and presents students with the results. Jaime also values opportunities for students to learn from each other because this helps one understand how others think. Jaime also learns outside of school by reading and being open to different experiences.

Jaime does not appreciate teachers using unnecessary power over students and thinks a teacher should not try to control how a student learns, as long as student is able to understand the topic. As an example Jaime describes a situation in which a teacher told students to close their books – even though students were looking for more information because the teacher’s presentation was not answering their questions. This experience helped Jaime realize that when a teacher’s instructional style does not meet students’ needs, students must either teach themselves or each other, or get outside tutoring in order to pass the class with good grades. According to Jaime, every kid is different, and we cannot pinpoint how people learn, so it is important for students to take responsibility of one’s own learning.

Being a passive learner is not beneficial. Jaime talks about just “going through the motions,” as reading chapters, taking notes, answering questions, passing quizzes, and then forgetting the content, thus not getting the other dimension of learning: a deeper understanding of the subject. Reading books independently during summer made Jaime realize the possibility of learning on one’s own. Jaime also talks about the problem of some students reaching a 4.0 GPA by doing exactly what teachers’ tell them to do but still being unable to think or form opinions on their own, thus missing the “other dimension” of having ownership of learning.

According to Jaime, students have ample opportunities to engage in the classroom. However, in some situations Jaime describes students being intimidated by each other or the reputation of a teacher, and for that reason being hesitant to engage in class dialogue. This is problematic because learning is then less active, and the content is harder to understand. Jaime knows there is a lot of social pressure in high school, and in addition to formal learning, students are learning about themselves and building their own personalities. Jaime appreciates knowing so many classmates from elementary and middle school. At the end of the interview, Jaime also says how teachers are not valued as much as they need to be.

#### **Four Categories of Description**

The four final categories for students’ perceptions of their learning experiences are *detachment from learning*, *belonging to the school community*, *synergy of learning ownership*, and *unbound ubiquitous learning*. These categories of description illustrate the depth and breadth of students’ perceptions of their learning experiences. Next I will provide an in-depth description for each category and discuss how they relate to each other. To enhance readability each category can be expressed just with one word: *detachment*, *belonging*, *ownership*, and *ubiquity*. Citations from interviews illustrate each category, and the themes of

meaning units within that category.

I will start by looking into the descriptions of detachment students expressed in the interviews, and the engagement strategies attached to the detached perception of agency. The second category follows providing examples of the experiences of belonging students discussed. The description then goes on to examine what the synergy of learning ownership looks like in the data, and finally describes the ubiquitous, agentic learning found in the narratives of the high school students participating in this research. The hierarchical relationship of the categories of description is displayed in Figure 2 below.



Figure 2. Categories of description for students' perceptions of learner agency. Students' ownership for their learning experiences increases from left to right. Interestingly, the learner agency that students experienced appears to be stronger in the first category, *detachment*, than in the second category, *belonging*.

**First category: Detachment from learning.** Students described their perceptions of alienation from their own learning needs and compliance with the instructional and institutional structures of public education.

This first category, *detachment from learning*, contains the following two themes:

1. Missing real-life connections
2. Earning a grade versus learning the content

Learning experiences in the classroom result from expectations and human interactions. The subjective interpretations of the learning situations and content are often not voiced aloud; therefore, students' indifference towards their own learning is not acknowledged as a part of learning experiences that contribute to academic achievement. However, listening to students' subjective experiences is important, as deep learning requires individual commitment to learning. Each of the interviewees had a unique way of approaching their leaning and the connections they found between their schoolwork and their lives outside of the school. Significant in these statements, as well as in the other quotations in this theme, is the chronotopic and contextual distance individual students expressed having to their own learning.

It appears that students' agency may function negatively at times – at least when observing from the vantage point of formal education – and students choose to disengage in the classroom in one way or another. This choice is made to object the structure of classroom learning, or education in general. It is important to remember that students' viewpoints may greatly differ from institutional views of what schooling and learning are, or what they should be. In addition to the chronotopes and learning content, interviewees also discussed their



experiences of detachment from the values foisted on them during schooling. Some students had strong feelings about this, and they talked about school as series of unpleasant events in which they need to do things they do not want to. Alex expressed it like this:

It just -- I hate how we are forced to do those things, in order to graduate. It just -It's unfair I think ... I didn't really learn about what I was supposed to be learning about, I wasn't -- you know, paying attention, really, to actual content. I was more -- worried.

Based on the interviews it seems that engagement is a problem for everyone at times and there are a variety of reasons for this. Sometimes it happens because of the subject, other times the teacher's passion for subject may contribute to students' engagement.<sup>2</sup> Robin discusses interest and engagement like this:

If I am interested in the lesson, I naturally want to participate in it and add to the discussion, but if I'm not interested in it, or if I'm just really tired or something like that - it's another story. If the teacher is really enthusiastic, it tends to almost have like a waking up kind of effect? Kind of a difficult thing to describe, but it doesn't so much like make me interested in the topic is like, cease dismissing the topic as something I can never be interested in. And sometimes, sometimes that ends up making me interested in the lesson. And sometimes it just leaves me wondering why the teacher thinks it's so incredible.

Engaging in the classroom learning is certainly easier when a student is already interested in the topic or subject. Alex talks about engagement and disengagement in the classroom and getting distracted, counting time, and wishing class was over:

I sit there and I -- I -- I do get distracted by a lot of course, but I'm mostly just writing being there is the main thing that's going on. In my head. I made it through 20 minutes, all I've got to do that two more times and then -- this class is over, you know.

Nicky mentioned one reason for disengagement in the classroom being the nearly tangible disconnect between school and real life:

In school, you're learning all of these things, just -- you're getting so much information that sometimes you can't -- you don't feel like it's going to help you in the real world. Some's like the other stuff, that's so difficult that you're going to have to study and study and you don't see how it's going to help you? I mean like, -- yeah, it's helpful, but I just don't see it in everyday life. ... some of the stuff we learn carries over to the next year, But it doesn't really carry over into the real world. Or real life.

Nicky is concerned about being exposed to large amounts of information that become hard to organize in one's mind. This certainly is a contemporary problem in a time in which information and misinformation are freely available. In some cases, the learning that students are expected to do might be reduced to memorization, which was a commonly discussed problem in the

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<sup>2</sup> All references to individual school subjects have been removed from the interview excerpts in order to protect the identity of both the students participating in this study and the teachers of the school district.

interview transcripts. Quinn provided a definition for learning versus memorizing as follows:

Gathering information, actually knowing it, just not memorizing it for a few weeks, to take a test ... uh, the difference is, if you just memorize it, then you won't have it if you need it later, and you have to re-learn it, or re-memorize it. I feel like you can actually say that you learned it if you can like go back and actually know how to do it like a month after the test you took for it.

Based on these interviews, detachment in learning seems to lead more to memorizing than real learning, as defined in the quotation from Quinn above. The choice for students to disengage in classroom becomes attractive when learning disconnects from life.

***Missing real-life connections as the first theme for detachment category.*** Connections between study topics and students' life experiences are widely acknowledged to be important factor for successful learning. Instructional strategies that encourage students' engagement emphasized applications and real life connections in data. Sometimes learning experiences are situated solely in the classroom context, and personal connections to individual students' lives are missing. This seems to cause detachment for students, and the interviewees commented on lack of connection to real life with expressions such as "when am I ever going to use this" (Emery) or "it may be useful for other people" (Robin).

The data shows that a real-life connection between the student and the subject to be learned is sometimes perceived to exist due to the nature of the subject or due to a teacher who facilitates the connection for students. These connections certainly depend on each individual's interpretations of the teaching-learning situations. During the interview Emery discussed a good learning experience while also touching on the missing real-life connection in many classes:

The teacher I had was really, really, really, great. He was obviously really interested, like, he was obviously knowledgeable about -- what he was teaching; he obviously was passionate about it? And I think that played a big role. And he just -- he applied what we were learning to real-life -- which -- which was a big thing. Cause I know like, a lot of times in class, it's like, when am I ever going to use this?

It is clear that in this learning experience the student perceived the topic having real life applications. Emery credited this perception to the teacher's knowledge, skill, and enthusiasm. It is impossible to tell whether the other students in the same class had the same experience. Emery also talked about other learning experiences without clear connection. The following classroom experience describes how finding the application for learning was much harder:

I think part of that was that we didn't have much guidance? Like, all the instructions were very vague so I didn't really understand what I was doing, or how to apply it to what we were learning. So I mean that kind of -- that was horrible. (Emery)

The example above has several degrees of detachment in regards to the learning content and also applications both in the classroom and outside of it. One part of the problem seemed to

be the disconnected interaction between the teacher and students. Finding real life applications for vague learning experiences or vague instructions is challenging.

Nicky discussed the separation of school learning and real life several times during the interview. Here the difference is in the chronotope of one's own learning, expressed with the wording of "using in life" and "forgetting the next day." This "real-life" distinction first occurred in the very beginning of the interview, while defining what learning is:

Learning helpful skills that you will actually use in the real world. Uh, well, learning stuff that pertains to me. And that I feel like I will need to know or will use in my life. It's a lot more satisfying than learning something and forgetting it the next day.

All interviewees discussed the disconnection between learning, testing, and real life. Robin generalized the missing connections in school learning experience as a memorization problem. We were discussing projects as a part of engagement in school, and Robin mentioned the persistent problem of students forgetting what they have learned right after they take a test (S = student, I = interviewer):

S: The projects are kind of applications of things that you've learned, to solidify them. And um, keep them around so you don't just forget them -- forgot about them after the test. Which is a persistent problem.

I: Hmm. Can you tell me a bit more about that?

S: Well, it's not something that I have a huge amount of experience with? Um, it's just something that I learned from talking to some of my classmates; the way that they memorize things, basically makes it so that it is only committed to their short-term memory and never makes the leap over to their long-term memory. So they memorize it long enough for the test, but then forget it afterwards and have difficulty, basically have to learn it over again if they need it, rather than having it be more solidified in their head. Like, if they had to apply it to something. The way I learn usually involves a certain amount of applying things to the world.

In the quotation above, Robin touches on the temporality of agency, using the chronotopes of short term memorization and more permanent learning by figuring out applications for the learned content. Some students, like Robin, appear to be more aware of their own learning needs. These students seemed to be proficient with advanced learning skills that help them imagine real life connections for the content provided at school.

One way to discuss the real life connections is to have students talk about situations in which something they learned at school supported their real life interactions or work. When asked to talk about such experiences, however, some interviewees had hard time finding anything to say. These situations seemed to have a strong disconnection between learning in general and learning at school. This is how Casey answered to the interview question to "tell about time when you used something you learned at school in your life out of school":

See, I want to say yes, but at the same time, I can't think of a situation like that? Because most of what we learn in school is very tight down to the subjects and not really on basic knowledge or life. So it's – it's hard to say. Like I have learned plenty outside of school, but I don't -- it -- it doesn't really help me that much in school. School is just a completely different thing that I have to do.

Casey seemed to think it was important to have school learning to connect to other aspects of life. The expression “completely different thing that *I have to do*” (italics mine) appears to emphasize the disconnect students perceive to be between life and school, and culminate in being forced to participate in activities that do not support personal learning. Devyn discussed this theme by questioning the reason for learning about certain things:

In studies? Well, like -- there are a few questions we don't actually apply in our daily life. So like, I always usually think that, what's the point of learning this stuff? Or about people, I mean, like what's the point of like learning about them, about their lives, what they did?

It seems that the detachment from one's own learning in school environment – as Casey said, “just a completely different thing that I have to do” – might be contributing to students' perceptions of how real life connections are missing from their school subjects.

***Passing a test versus learning the content as the second theme for detachment category.*** The interviewees seemed concerned that the emphasis on studying for exams encouraged reproductive learning instead of meaningful learning. This was evident in the way the students discussed the need for passing tests instead of learning transferable skills or knowledge:

Like we have major tests on all this super difficult, hard to learn stuff, and I haven't had to use that stuff in all of my life. I mean, yeah, next year, they're like oh, what's this? I'm like, oh hey, we learned this last year. Shame I didn't pay any attention, really. (Nicky)

While this quotation also discusses real life connections, the frustration seems to center on storing the information learned during the previous year in order to pass an exam. Without a meaningful context, it is hard to get invested in learning difficult content. Quinn also finds it problematic that things are not really learned, just memorized for tests:

I feel like I've memorized things that have just been lectured, and once we like watch videos and they're just lecturing about it, I don't remember any of the stuff. Like just when we have to like read from the book, and we're just like, read this chapter, take a test, So, whatever answer is closest to the general idea is right... it made me despise reading books, like textbooks.

Jaime holds a similar personal viewpoint about decontextualized learning. Classroom learning experiences in which the teacher just lectures are not always helpful for learning the content or passing tests:

There's times when the teacher would just get up and analyze the [content] for us, and

just tell us what's there every once in a while? And I don't like, I'll – I'll under -- I -- I know what he is saying and I get what he's -- what he's saying and I understand it all pretty well. But then it'll come to a test a couple days later and I'll forget everything he said.

Devyn did not talk about learning as gaining new knowledge and understanding, but instead as passing exams and classes in order to avoid disappointing one's parents. Even when unsure of what will be on the test, Devyn studies hard and worries:

I don't know which question that we'll be given from which part. So it's very tricky and challenging for me? Because I spend like three to four hours before the test, to look ... so that's the same feeling I have during exams and, say what if you -- I have a question on paper that I don't know? So yeah, I'm worried.... well the reason behind would be that my parents, that my parents, they kind of check my grades. So, I study hard so that I wouldn't disappoint them.

Casey discussed a specialized skill class and pointed out the differences between it and core classes: "It's definitely different because ... they don't try to fit a curriculum exactly, they try to teach you, to help you; they don't teach you to get the best grades in the state." Based on these comments, it seems that passing and getting good grades might be overemphasized over the quality of individual learning. The following example from Alex's interview seems to support this view of passing exams being emphasized over learning to the point where students would copy homework from each other:

I think everyone's more concerned with passing because it's what everyone's telling them to do -- their teachers, their parents, everyone, there like you gotta pass -- you gotta pass. And so they are willing to do whatever it takes, like copying, you know? Let me copy your homework -- I didn't get it done. They're more concerned about that than actually absorbing information. Especially with deadlines -- like you have to get it in by this time, you have to learn it by that time. The grades are what I'm mainly concerned about and I -- I don't like that.

Alex has a strong personal dislike for emphasizing the tests, and this seems to be a part of the perceived detachment. Having to focus on passing instead of learning was a strong strand in this interview. Also Nicky discussed passing and learning, emphasizing one's own choices regarding engagement, and deciding not to participate: "Yeah, that's my own choice. I don't really care too much about getting perfect A's or anything." This comment also reflects *ownership*, which belongs to the third category. However, it is important to note that choice here is verbalized as means of *detachment* – engaging with a personal decision about the degree of compliance.

Casey talked about school learning and the problems of only learning for tests, as it seems to lead to "losing" the information afterwards. Casey made a clear distinction between learning for tests and learning for personal gain:

When I'm learning for school, it seems more for the tests. Seems more for the grades. And I do try to learn in the way of wanting to learn, for school, to better my education, but at the same time it does end up being for tests. And for the curriculum basically. I've not learned everything that I need to learn. Or have learned. I -- I definitely know I can always read up more on what I have learned and learn more on it ... Definitely in school subjects, cause again, it is for a test. I -- I learn information, I take the tests and I lose it.

Learning for personal gain seems to require more than passing the test in Casey's descriptions of engagement. Robin discussed the problem in learning just for tests while describing how many students seem to have lost their curiosity and their interest to learn:

A loss of like a natural inclination to find out more about stuff that interests you and perhaps like, ignorance of what you are actually interested in, like difficulty telling between things that you are learning about, because you're interested in them, and things that you're learning about because of school -- because like your forced to? By school or something else. So it kind of ends up -- it seems to drain all of the learning, like you'll -- it seems to create a mentality that you only learn what you have to, for shorter time is you have to.

The other part in Robin's comment was about compulsory learning. The expression "drain all of the learning" is a strong metaphor for the resistance students expressed towards learning that was not meaningful. Finlay had a similar view about how school emphasizes tasks and tests, using the expression "drive to learn" and commenting on its decline: "Memorization and retention are -- what are valued in education. Not so much the drive to learn. I've noticed cause I've -- I've felt that beaten out of me a little bit. My drive to learn."

**Second category: Belonging to the school community.** In the interviews students discussed how they understand, interpret, and conceptualize their sense of belonging to the school community as a part of their learning experiences and agency. An important difference between the categories of *detachment* and *belonging* is the mutual respect students discussed as a part of both themes found in this second category. The importance of respect found in interviews also extends to the next category, *synergy*, helping teachers and students to share the ownership of learning in the classroom context.

Being respected is a major part of human development that is chronologically situated in the secondary socialization process, occurring during formative school years. One part of belonging in the interviews seems to come from one's desire to do what is needed, or what is expected, and to comply with the rules of the school or the classroom. The other part of belonging comes from students' descriptions of dependency related to classroom learning. Both parts require some amount of mutual respect between teachers and students to be successful. Without respectful interactions *detachment from learning* is likely to increase. The second category, *belonging to the school community*, contains the following two themes:

1. Going through the motions
2. Dependency from teachers and other students

Interviewees discussed the experiences of respect that was extended to them as human beings. This is different from the professional respect extended towards teachers as subject matter experts. It is also different from the respect provided to students who achieve high grades. Nicky discussed respect as a part of learning experiences and expressed the importance of it very succinctly: “I felt I mattered a little bit more in high school.” This seems to relate to the basic human need to be able to make a difference in one’s own environment, which is one building block of human agency – and learner agency as well. It is easier to engage in an environment in which one feels respected because it adds value to one’s individual contributions to the socially shared learning.

The mutual respect seems to contribute to students’ willingness to comply with the structure of school rules and expectations, even if it means just going through the motions, because of the perception of mutual dependency. In the interviews students discussed experiences of collaboration and learning from others, as well as from teachers. Students’ dependency from teachers and other students appears to have a strong effect in creating the feeling of belonging to the school community, which also contributes to learning engagement. Emery expressed this collaborative learning as the follows: “It’s not just one person doing it. It’s like a bunch of people coming together to come to a conclusion which I think is helpful”.

However, learner agency does not appear to be as strong in the second category as it is in other three categories. This might be because of the limited choices students perceived to have when they discussed compliance. Robin emphasized how choices relate to meaningfulness, noting how on “the typical school day, I have like a lot of more or less meaningless choices.”

***Going through the motions as the first theme for the category of belonging to the school community.*** Students’ intentional engagement in this category was observed through the lens of belonging. School as social and cultural construct is a structure that restricts students’ degree of freedom. Students’ compliance takes various forms within this structure. The interviewees discussed the limited choices they are allowed to make about their own learning. Casey talked about a class in which students and the teacher followed the book and curriculum very closely, which seemed to reduce the amount of choice students had: “just trying to get it done. Honestly, there wasn’t that many choices.” These experiences seemed to have an adverse effect on students’ intentional learning engagement. Finlay discussed a classroom situation, saying “we were rarely given much choice at all” and “you are just kind of sitting in a box waiting to be pulled out by the bell.” The choices provided for students and the actions they take within the structure are a major part of learner agency.

Grades were mentioned as one important aspect of trying to belong and comply with school structures and practices. Students perceived the importance of grades in various ways.

Finlay talked about grades, exams, and why playing by the rules is important, even when it does not fit into one's preferred ways to learn:

If it's a -- more traditional kind of exam with questions and answers and whatnot, then I'll -- I'll be a little more careful with my studying. I'll work through section by section. Which is not -- it is segmented learning, which I don't like. But with the segmented test you kind of have to -- you have to play by the rules. To an extent. and so I'll -- I'll use the segmented learning. I'll take one chunk at a time. This chunk, how this related to this or whatever it is and just kind of sit down and muscle my way through it. Cause it's -- while not easy, it's the easiest way that I found to -- get some kind of acceptability on my grades.

The reward is clearly externalized in Finlay's example, yet the "acceptability" of grades seems an important notion. Students had various approaches to how grading helps them to belong and comply. Devyn discussed compliance and said "grades actually motivate you to perform well" and talked about studying hard to get good grades because that is the main goal of going to school.

It's very difficult. It's not easy to get good grades. I -- it's a lot of struggle. like -- It is -- it is stressful. But like sometimes, I believe that oh -- education is the only option that you have, if you want to live a good life. (Devyn)

Both grades for tests and final grades were perceived as important while defining success in the category of *belonging*. Compliance to the school structure is also visible in Jaime's reflection about going through the motions and doing what a student is expected to do in high school:

I can actually see that play out in high school now, too, and in a real community. Well, I had [school subject] in freshman year, and I would get book work assigned once or twice a week, you go do -- just go home and -- I wasn't -- I wasn't really understanding the work -- like, I would do it but I would -- then we'd have quizzes and I would get poor grades on the quizzes. And so I -- I wasn't really learning? I was just going through motions of just like, reading the chapter, taking the notes, answering the questions, but I wasn't really absorbing the information or just kind of, you know, glancing -- off or something?

Going through the motions of engagement and learning activities is one of the important characteristics in the *belonging* category. Quinn discussed classroom experiences in which students complied with the learning activities while not really understanding their meaning or need for them: "We just did like a lot of things like out of the book and like worksheets and stuff ... we spent like year and a half not fully knowing what we were doing." The structure of schooling was perceived to be emphasized over learning experiences in these interviews. It seems that structure was overpowering learner agency in this category. Finlay discussed this compliant engagement from an interesting angle, labeling the behavior as "being a classroom sheep." According to Finlay, this behavior is necessary when information "is taught in blocks":



There is no flow to the information. It's like this is the xyz principle. We're going to spend three days on this. There's a test on Monday. Okay. Next -- next concept. It didn't relate to anything. We started to learn about something ... and then all of a sudden ... talking about something else. And it's -- none of the information's like put together well -it was taught in blocks. Of information that were just kind of fed to us.

Wanting to comply seemed to be a connecting theme when students discussed finding engagement sometimes hard in the classroom. Finlay went further to illustrate what compliant engagement behavior that emphasizes belonging over learning might look like in the classroom:

I'll just kind of sit there and copy down the notes, -- just kind of be a sheep? Be a classroom sheep? Because as much as I don't enjoy being a sheep, it is one of the best ways to acquire information in this -- in -- in the way that it's being taught; you just kind of have to go with it and take your notes and study the notes and do the thing.

Being a "classroom sheep" is a description for strong dependency. Compliance was apparent in students' willingness to play along and follow certain rules, even if they did not want to do everything they were asked to, and even though it did not make sense from their personal learning perspective. Devyn confessed to having a hard time engaging in class when it was time to do individual work, which leads to having more homework:

Well, to be honest, I can't really engage in the class, because I can only concentrate and focus on my work when I'm studying alone. Because if there's someone -- like even whispering beside me, I can lose focus in the class. But I try my very best.

Interviewees had good insight into their own learning preferences. This is what Casey said about complying with the expectations of how to engage in the classroom:

[Notetaking] is supposed to help you to be able to write down what you're hearing and so you have the notes so it's going through your mind, but I'm just worried about writing it all down instead of actually comprehending what I'm learning. So there is a lot of that in school, which I really don't like.

Students discussed compliance from various angles, but always still in the form of agreeing to play along with expectations: to attend classes, to present homework, to graduate, to think about attending college, and to fit into society.

Belonging to the school community and meeting classroom expectations seem to invite behaviors that support passing the class, but do not explicitly support students' individual learning processes. Two strong expressions in the interviews "being a classroom sheep" and "just going through motions" described students' attempts to remain compliant with the structure. These expressions seem to have diminished agency, as they relate to students' dependency of the structure, emphasizing reproductive learning over meaningful learning.

***Dependency from teachers and other students as the second theme for category of belonging to the school community.*** Several interviewees discussed experiences in which they relied on their teachers and peers in the classroom. The teacher's perception of students'

learning is important in the category of *belonging*. The success of learning engagement is measured by the grades and tests. As Emery said, “I mean, if I do well on the test, that’s a pretty good indicator” referring to learning being successful. In addition to teachers, student slow relied on each other during their studies. This is what Casey said about learning in general: “It helps when there’s other people”. Collaboration is an important part of belonging to the school community. The mutual benefits of collaboration with both teachers and other students were explained by Emery as follows:

The teacher like, comes around and like, helps us. He’s like, do you have any questions? And we switch every once in a while so we’re not always working with the same people, which is nice. I think is nice when the other students are helping? Because like obviously the teacher knows what they’re talking about -- like they -- they went to college for it, but I mean it’s like, when like the other students understand? It’s like they can kind of help you and show you how they understand it? Like how they -- kind of apply it?

Students’ dependency from teachers and other students appears to have a strong effect in creating the feeling of belonging, which also contributes to the engagement. Successful collaboration requires shared respect to be present in the learning environment. Sometimes dependency does not work as well as teachers and students anticipate. In the context of group assignments, Finlay discussed the possibility of the work not getting done, and the possibility of failing the project because of it:

I’ll try to take on more of the project if I can’t collaborate with my group members. Partially because I’ve had a lot of experiences with group members who did absolutely nothing, when I couldn’t collaborate with them. And that’s not fun. When you fail because of other people’s -- lack of action.

Other interviewees had similar experiences of dependency on other students. Nicky talked about how group work can be good or bad, depending on the compatibility of the group members:

And there’s some other classes where I get thrown in with a group of people who are the complete opposite of me...-- if it’s a group grade or whatever, I’ll make sure to put in all my effort into it, and do my own work and then I’ll -- I’ll let the group see it.

The word choice of getting “thrown in with a group” is interesting, because it communicates both dependency and compliance. Nicky’s comment of putting all effort conveys compliance, but also respect to other students, and the plan to collaborate with them because they will be sharing the grade. In a similar manner, Finlay describes a situation where a student has to be working with incompatible group members:

Yeah. I will drag my feet, but I won’t -- I’ll try -- when I realize that I’m dragging my feet, I’ll try not to drag them so much that I hurt other people’s grades. I’ll try to at least get my part done.

Dependency had both positive and negative aspects in students' expressions of their experiences. Emery mentioned a collaborative classroom discussion, describing it as follows: "we'll respond to what each other said, which is nice; it kind of keeps us all focused and all like, thinking together". Learning from each other is an important part of the classroom experience. Casey discussed learning experience where other students helped when one of them was struggling to understand the content. Casey: "If one of us understood and the other didn't, we'd always help each other out. And always figured it out altogether. So that always helped and that was a way to learn". Dependency is a part of classroom collaboration and learning from each other. Devyn explained the importance of classroom discussions in order to learn "how my thinking is different from others. So they share theirs, I share mine and I like kind of compare them and yeah, I enjoy that kind of work". Collaborative activities contribute to the shared respect in the classroom.

Another factor in both engagement and dependency is the perception an individual student has about the demands of the class. When learning is too hard, it tends to decrease the engagement and increase the dependency. However, the same thing happens when a student perceives tasks as being too easy, and would like to move on, but cannot because of the instructional choices. Students described the effects of dependency in the classroom. In the following quotation, Emery sometimes wishes there were more challenges in learning, or that the pace were faster, so that engagement would be easier:

In class we just move so slow that we just keep going over the same things over -- and over and over and I just -- I keep getting like 100% on the quizzes and I'm like I need more of a challenge....-- I do tend to space off a little bit more. Just because it -- I find it really, really boring? And I know that's bad but I -- I still do it. I just kind of think about other things, like, oh, I can't wait to go home and stuff like that.

Every student has a different perception about how easy or hard learning is, and every student has different survival strategies for those situations. Learning engagement may not be the main focus when students' choices are limited and they depend on the teacher to set the pace in which new information is presented. For Nicky, when the content gets really hard, it is easier to let go:

I don't try my hardest. I, um -- I'll sit there and I'll -- I'll pay some attention and then when it gets into just stuff that I just -- I can't understand for the life of me, I'll just zone out and think about some other stuff.

When the content becomes hard to understand, Quinn has somewhat similar survival strategies in the classroom:

Depending on the subject, I like, take notes? Or try to engage in the conversation. Sometimes, I have no clue what we're talking about; so, I'm just like, I don't even know what's going on. I'm just going to sit here.

The survival strategies focus on behaving as expected – e.g., taking notes, going through the

motions, not being disruptive – but they do not appear to support individual learning. Students behave well in the classroom out of the respect for their teacher and peers, but while belonging like this supports the classroom community, it is not always beneficial for one’s own learning or agency.

Belonging may be harder to feel when there is not sufficient time to socialize with other students. After all, a big part of belonging comes from having interactions with others and collaborating with peers. Quinn discussed it like this:

I mostly just talk to the friends I have in there. We have like five minutes in between classes, but you can’t like talk to people cause you have to get to class, so if you don’t have a class together, then you can’t talk to them. And then we have 30 minutes [for lunch], but then there’s so many things that go on.

Negative experiences of respect within the school structure made it harder for students to engage in the class and have feelings of belonging. Sometimes, a lack of respect from other students’ part made learning and engagement significantly harder. Casey mentioned being in a rowdy class in which “they’re like, I said not ... respectful, so it makes me not really want to speak up.”

Students who feel that they can contribute to the social context seem to experience stronger belonging and engagement. Jaime described other students being nice and inviting, which was one part of creating the perception of belonging:

And so freshman year, I went into high school terrified of all the seniors, just because I guess I had like this mental block between grade levels and how they’re segregated, which they’re really not segregated as badly as I feared they would be, -- and so there was all these juniors and seniors, that were being really nice.

A bit later in the interview, Jaime talked about “the mental barriers you make for yourself” and learning how to fix problems, even if they are not one’s own problems. So, being a senior, Jaime decided to extend the same esteem towards younger students:

I realized that there are like, social hierarchies that are created in high school of like, seniors, juniors, sophomores, freshmen and you know, seniors are top tier; freshman are lowest tier -- and so what I did was, I just went up to a bunch of freshmen, and so I just made sure that I would, like, for the first like three months of school, I made sure everyone that I saw in the hallway, that I didn’t know, I introduced myself to and I said hi and I was really polite to them; really nice to them.

Here Jaime was exhibiting mature behavior, and helping freshmen feel belonging. The tiered view of respect or esteem in school community is very interesting. I wonder if respect that comes from people who are older and more experienced, like faculty or seniors, is a significant contributing factor for belonging into the school context.

The interviewed students discussed how they sometimes found it hard to follow teachers’ directions. Sometimes it was easier to ask for help from another student, as it might

be easier to understand someone who is on approximately the same level of competency in a given topic – subject matter experts may have hard time recalling how their own skill had built through years of studying. Casey discussed the hardships in communication in the following way:

It's like -- if you asked a good question, it can be interpreted in different ways. And he seemed to always not really understand our questions, or give us wrong answers, or -- it just was not a very clear type of conversation to have. So, we were better off using our notes and talking to each other and -- just trying to get it done.

Students helping each other to meet the learning requirements appeared to be an easier way to understand the content in the quotation above. Collaboration is an important part of the learning experience. Other times the class requirements made students worry about their performance. Perhaps the way content was presented did not help these students learn, and they maybe did not like it, but they still respected the teacher's wishes and tried to engage as expected.

Interviewees wished there were fewer situations in which students feel they need to be "classroom sheep". Students also perceived the structured expectation for conformity to make learning and belonging a challenge. Alex summarized it as the follows: "It's very suppressive. Because of how – you're kind of forced to think a certain way and do things a certain way". The shift between this category of *belonging to the school community* and the next one – *synergy of learning ownership* – is the transition from being an object of teaching to becoming a subject of one's own learning.

**Third category: Synergy of learning ownership.** Several students indicated ownership of learning being an important factor for engagement. They discussed ownership in many different ways. One commonality was the way in which the interviewees perceived ownership as the quality of being an owner, being a subject who owns. What is interesting is that this definition relates both to the owner – which here is interpreted as an agent – and to the element that is owned, which here is one's own learning. One part of ownership for the interviewees seemed to be taking responsibility for the learning process and defining what learning means on a personal level, which might not align with the goals or practices of the school. Another part is the commitment to lifelong learning, which was visible in all interviews. This category is divided into two themes:

1. Ownership of learning
2. Permanent or life-long learning

Synergy of learning at best is about increased collaboration between the student and the teacher, so that the learning process, while owned by the student, is supported and scaffolded by the teacher. Synergy, like *dependency*, requires mutual respect between students and teachers, but also more freedom and choices. Without synergy the ownership may appear to be aligned against school learning. However, owning one's learning is an important part of

agency.

Defining one's own learning evoked strong reactions among some interviewees. Alex expressed the ownership of learning with a powerful statement about personalization:

I mean I -- I hate learning -- the learning format in school; just the way they teach things, it just -- uh, I think that everyone is so different with the way they learn, and the -- things they take in. And teachers are held accountable to make sure that everyone learns the same thing. Um -- no. I think that currently, school is more about passing than it is about learning itself. Just I -- I hate that fact.

It is noteworthy that this is the same student who had stated in the beginning of the interview: "I love learning things and I love knowledge." Alex then expanded this to a personal statement of what deep learning is:

I think I'm changing all the time because of the things I learn. I mean, everything that I process and you know, brings me to a new realization, basically like changes my life. Changes my perception in some way, so -- make connections -- and expand our knowledge.

The interpretation of these two seemingly different statements is that they reflect two dissimilar types of learning, but there does not seem to be suitable words to express the difference between the experiences of enjoyable learning and forced learning. This could be connected to deep versus surface learning. Personal interest in seen the quote to leads to deeper and transformative learning, but the experience of being taught with standardized delivery and objectives directs this student's efforts towards passing. Compliance may overpower learning ownership.

Nicky does not want school or grades to define students and emphasizes making one's own decisions. This is a very strong statement about ownership of one's own learning process, albeit perhaps a negatively perceived one:

I'm not a real big fan of going out of my way after school to do a whole bunch of work and stuff like that. But yeah, I'll look at -- I'll look the stuff over. I uh -- homework? umm -- I normally let them be and I pass. But actually, normally, I -- I don't do homework. I'll do the essays and stuff like that. But like if it comes to a whole bunch of like, big work assignments? I'll tend to just not look at them. And I'll still do fine on some of the tests and stuff.

Here, Nicky is clearly defining one approach to sharing learning ownership: working enough to pass the classes, taking what is personally needed, and engaging enough to pass. Yet there is the individual, intentional choice of deciding what is personally sufficient and how far to one's own free time to extend school activities. This certainly is one part of agency, where student recognizes that the power is in the hands of the teacher and agrees to play along. This compliance only extends to the point where both parties are somewhat happy with the results: the teacher because the student passes the class and the student because the workload is not

overwhelming when one decides to leave some homework undone. Finding space for learning *ownership* is an important part of the structure and agency in formal education.

***Ownership as the first theme for the category synergy of learning.*** Students discussed their own learning processes and engagement strategies as important parts of gaining information. The respect discussed in the second category, *belonging*, contributes to students' perceptions of their learning ownership. Students appreciate the recognition of their ownership. Jaime described a situation in which there seemed to be disrespect from the teacher and an unnecessary use of power in the classroom:

Not that students at the high school don't respect their teachers, but sometimes they won't, if the teacher is not exactly -- I don't know how to put it, but I guess if the teacher's not like a good -- a good at -- at helping them understand. My teacher wouldn't exactly help us when we'd ask help, and I remember one specific time I had the book open. So essentially we were just sitting, staring at a screen, taking notes, and we'd go home and work it out on our own --and I had the book open cause I wasn't understanding the power point and I was reading through it and he told me to close my book... It's kind of shocking to me that a teacher would try to control how a student learns, because as long as the student gets the topic, they should be able to learn however they -- need to, to understand it.

This quotation illustrates how important it is for students to get recognized for their competency and engagement in personal learning in order to increase synergy and support ownership.

One part of synergy was evident when students discussed group work and group assignments. The consensus was that everyone does their part so that the group does not suffer from one student's disinterest. Finlay discussed group learning experiences from several different viewpoints, noting the synergy and interpersonal relations in the groups:

Projects that are largely interpersonal -- are usually things I enjoy. If my group members or the people I'm working with for the project are -- or if I don't enjoy their presence or their company, or if they annoy me to a great extent, then I'll have a less enjoyable... then I'll try to just make it a -- an impersonal relationship. All right. Let's just get this done, -- you do this part, I'll do this part, we'll do this; it'll be over, we'll be good.

There seemed to be occasions when one student ended up doing the work. This is how Emery described the situation where synergy did not work:

Sometimes I don't like doing group projects because I'm stuck with people who don't want to do their work...I do try to get them involved and say like okay, you can do this part, and you can do this part. Stuff like that. Try to divide up the work, but I mean, -- some people just refuse to do it, so I just do it all myself.

In the interviews, it was evident that the synergy of learning ownership grows during the school years. Jaime, as a senior, thinks differently about learning and engaging in classroom

interactions than Jaime did as a freshman. This chronotopic description of development over the four years of high school presents a view into growth as a learner. Such growth is one part of the development that ideally is supported during schooling. Jaime also reflected on these growth experiences and how participating in classroom activities had changed during high school:

It's been -- changing. I've grown a lot from freshman year. And it's good. I like it a lot. I wasn't like, very outgoing.... I guess you could say? And I didn't like try, I didn't try anything new, I didn't like, volunteer, participate, anything like in class activities really.

There is more synergy of learning ownership in the following quotation from Jaime about defining the different roles of the teacher and the student:

It's not the teacher's responsibility anymore to make me learn; it's my responsibility, that I guess I just -- have to, I don't know, teach my -- like -- I can go through the motions of what they're telling me to do, but if that's not making me like helping me understand, then I have to -- make my own motions, I guess, and do those, too.

Jaime continued to describe the difference between dependency and synergy in learning ownership:

Yeah, and like there's some students that are really good at following the teacher's directions and so the people -- there are people, like that get a 4.0 in high school, I have no problem with it; they study, they do exactly what the teacher tells them. But in the second of they're put in a situation where they need to think on their own or form their own opinions, they can't do it? And I'm not sure if you can like compare that to being less intelligent than, let's say, a 3.5 GPA student that can form their own opinions, but it's definitely two different forms of -- intelligence that -- the -- the 4.0 student, while they do listen and follow instructions, can have, and go through the motions in the motions for them actually work and then they learn; they don't get the, like -- they don't get another dimension to their education that people that have to -- teach themselves can get when they're forced to. Learn on their own, I guess.

This was a very enthusiastic passage in the interview. The synergy of ownership and assuming responsibility for one's own learning are here strengthening Jaime's perception of agency. One part of ownership in learning seems to take students to a place where the grade does not define them because they know what they have learned – and they also know that they can learn on their own.

Several interviewees showed strong awareness of their own learning. They discussed their learning and growth processes in various ways, often showing an interest in learning beyond the curriculum. Intertwined in these discussions was the perception of grades as the secondary goal, while learning or ownership of learning was the primary goal. Emery talked about a school subject that did not present to much of challenges: "I should be happy because it's like an easy A, but I'm not because it's like I want to -- I want to keep moving. I want to keep



learning more.” Nicky, who earlier in this chapter talked about only doing some homework and still had the perception of doing fine, further elaborated on ownership of learning in the context of general well-being and not feeling overly stressed about school:

Yeah, that’s my own choice [not doing homework]. Yeah. I’m -- I don’t really care too much about getting perfect As or anything. I am happy with a C or higher. Yeah that -- that takes off a whole lot of stress. And it just makes my day go a lot easier.

This example of ownership does not have much synergy with teachers, but when Nicky continues to talk about engagement and school work, there certainly is synergy with other students. Here Nicky discusses the strategy of not finishing all tasks, except for group work assignments: “Yeah, I still learn, but I don’t get the work done. Or the group project or whatever, done. It normally doesn’t affect the group. Cause -- a lot of it’s individual grade”. In addition to grades, synergy of learning ownership also was evident when interviewees expressed a desire for more opportunities to learn from their own mistakes. In this example, Casey noted the positive characteristics of feedback from the teacher:

”If I messed up then it -- I learned from it. I -- it wasn’t a punishment, it was a learning experience for me. The teacher was very kind and she helped us learn and understand from our mistakes. She didn’t punish us or put us away or anything and it was -- it was a better way of learning. And I -- what I learned from that is, everything is a learning experience.”

When ownership of learning is shared between the students and the teachers, there are different types of motivational incentives in the learning-teaching equation. With less or no ownership in learning students did not seem to be as invested in their learning experiences as they would otherwise be. Quinn defines learning ownership as having a passion for something:

I feel like there’s a difference in learning a passion and learning what you’re required. Like I don’t know, it’s like you don’t want -- like some people, like don’t want to go to school, and then that -- like, I don’t want to do this, I don’t want to have to be required to do it. And, but like they go, because if not, you have to go to truancy court -- but so they’re pretty much going because they have to. Whereas, if you’re learning a passion, you go because you want to. And so you’re more motivated to actually know what you’re doing.

It is understandable that school cannot provide passionate learning experiences for all students, all the time. However, sharing the ownership of learning in one way or another seems to help students become more invested in their own education.

***Permanent or life-long learning as the second theme for the category of learning ownership.*** Besides detachment, this was the only theme in all categories for which every interviewee expressed their perceptions of learning. When students were invited to discuss whether continuous learning is important and if adults need to continue learning, the response was a unified “yes.” Interviewees discussed how the chronotopes of continuous learning

changed and shaped their thinking.

When life-long learning was contrasted with school learning the process of continuous learning became a duality of learning and being taught in the interviews. Jaime emphasized the importance of one's own actions during the learning process because ownership supports both memorization and understanding:

I'm like a hands-on learner? If I can do it, and if I can picture it in my head and understand, like, how everything works with each other, then I really get the concept down. So I have to like, I have to do it and I have to understand it to -- to know how to -- to know how everything works... I think I remember better when I talk about it, because, well, when he's saying it? Okay, when the teacher's telling us these things? They are coming from his brain, out of his mouth, into our ears and then they just kind of stay there. But then, when I am talking through, it comes out of my brain, out of my mouth, and then I hear what I'm saying also, and then I can think about it and process it.

Alex stated the importance of continuous learning but also contrasted it with formal education, bringing ownership of one's learning into the interview. Alex expressed the joy that independent learning can bring and highlighted the learning process:

I think that we should always be expanding our knowledge. Well, I think life is about learning and knowledge, really. And finding your own happiness; that's basically what I think life's about. But. .. Just not the way schools do it. Because I think that's -- I don't know. For me, the way it makes me happy is when I'm passionate about something I can learn about it and there's always more to know, you know? I think I'm changing all the time because of the things I learn. I mean, everything that I process and you know, brings me to a new realization, basically like changes my life. Changes my perception in some way, so, make connections -- and expand our knowledge.

Casey discussed ongoing learning as a positive personal quality, and connected it to life experiences, including how it helps people grow. There is strong determination in Casey's statement about learning:

I don't know how it's going to be and I don't know how I'm going to take it, but I'm going to try my hardest. I'm just going to try to learn as much as I can and keep up. I definitely think as adults, as being an adult, you should want to learn. And relearn. I don't think you should ever stop wanting to learn. I don't think you should ever stop learning. Life is about learning and experiences and I don't think there's ever a time that I want to stop growing and understanding more. I guess that it broadens my horizons; that makes me more open-minded and I wouldn't ever want to stop doing that.

Devyn shared the view of life-long learning as having experiences to learn from. Devyn also expressed the opinion that people should never stop learning:

Well, obviously, because life never stops giving you experiences -- there's always experience in each and every step of life. In the news there were some people who

were 85 years old. And they got a PhD! I mean why should you stop yourself? Emery discussed how things are changing in the world, which presents a need for everyone to continue learning, even in the adulthood:

Things are always moving, always changing like you know, with new laws and stuff like that and new ways of thinking; new ideas are being proposed -- you know, just because something's always been done this way doesn't necessarily mean that's the best way to do it.

Quinn had very similar views about how the world is changing and about the importance of learning new things. Quinn used parents as an example to discuss the chronotopes of learning throughout life and focusing learning activities on something one has interest in:

And there's like always new discoveries so we always are learning new things. Than like what the previous years have. So I feel like parents, I'm using them as a generalization, I feel like -- they necessarily don't have to like learn everything. But they should always, like, learn something that they would want to.

While discussing life-long learning Nicky had insight about teachers being the learning professionals. This interview presented a new nuance to the discussions of life-long learning, as it indicated that some adults may have stopped learning:

Well, I feel like teachers are kind of always learning. I mean, it's almost the same every year for them, but they're -- they meet interesting students and they learn some new things. But adults out in the real world, they do need to learn again.

The focus of life-long learning appears to be different in the following quotations. Jaime had a very deep insight into the learning process, talking about how it covers all the experiences we have, both in and out of the school system. This inherent understanding of the socialization process seems to lead Jaime to think that learning should last for life:

I don't think you're ever done learning until you're dead. Well, you don't know everything, so there's always something to learn and, like, no matter how old you get, there are still experiences that you haven't had. And I think you learn from every experience you, like, go through. You might not even realize that you're learning something, but you are subconsciously, I think, because like, when I was little kid I would -- I would do all these -- I would go outside and play all the time. And I never really thought that I was going on learning, but, when I look back on it now, those experiences with my friends in like, decisions I've made -- and not made, are like -- they've kind of shaped who I am today and I guess that's -- I -- I learned from that in the sense that like, I can look back on what I did when I was a little kid.

In addition to the learning experiences everyone had as children, students seemed to think that adults also have learning needs. Finlay first stated generally that adults probably need to continue learning: "That depends on how long they've gone without using the information, I think." Then Finlay specified this being the case for skill-based learning -- in which practicing is

important – and used playing a musical instrument as an example:

It had been a really long time. Because they hadn't used that information, so it'd gone dormant. And so that's -- um, that kind of a thing at least, if it's a skill-based information, then you should probably at least keep up on it. Otherwise you're going to have to learn it again at some point. And it'll be easier than learning it the first time. Hopefully.

A bit later in the interview Finlay discussed how some people stop learning at some point during life, stating quite strongly that it is not good:

I think that if you forget why -- or if you forget what learning feels like? It's -- I personally see it as kind of a sad thing. Cause learning is so incredibly fun. And it's -- it's a really -- well, I've already s -- I already kind of said this, but it's a really good feeling and doing it just makes everything else feel good. To -- to varying extents. And you can apply that information; even if it's not like important information.... as long as you're connecting the information, that -- I think that that's fun.

Robin also discussed the impact of continuous and life-long learning on well-being (S = student, I = interviewer):

S: I think that anyone who stops -- who's like stopped learning has kind of stopped opening their mind up to learning? And that's definitely not a sign of a healthy mind.

I: That's -- that's really interesting because now you're talking about um, the health of mind, in -- related to learning. Can you -- can you tell me more about that?

S: Hm. Well, I think that the mind is set up to learn. And it's kind of, in a way to some extent built to use what goes around it, and since there's so much to learn and what there is to learn is always changing, it seems to me that if you stop learning, it's not because you've -- you've run out of things to learn, but rather it's because you stopped thinking that you can learn or that you should learn. Or maybe that you're forcibly cut off from learning things.

I: How about -- do you think school supports this view of learning?

S: Um, well, I don't think it's set up to optimize it, for the most part. Because it kind of, by emphasizing tests, above all else, it kind of promotes that problem we were talking about earlier, with people just memorizing things for test -- and that's not really, truly learning.

I: No-- it is not. What is it, then?

S: Well, (PAUSE) half learning? It's like learning that you lose; I don't know that there's like actually a word for it in the English language.

Life-long learning seemed to be a very important topic for the students interviewed for this research. They discussed different themes within life-long learning, ranging from a somewhat

compliant view of learning as means of acquiring knowledge to an all-encompassing part of life, including the free-form learning one does for enjoyment “cause it’s so incredibly fun” (Finlay).

**Fourth category: Unbound ubiquitous learning.** Three interviewees talked about the independent, limitless learning they do. These interviewees described situations in which they took charge of their own learning, and they expressed in many different ways of how they controlled their learning. The main difference between this category and the *synergy of learning ownership* category is that self-directed, unbound learning is something that one does on one’s own. This individual drive to learn contributes to the learning that happens at school, but it goes well beyond school subjects and reflects numerous personal interests. Self-directed or self-regulated learning can be present at school when students control their own learning process in the classroom. Unbound learning is omnipresent by its nature, and these students described those everyday experiences as well, often connecting the description to the chronotope of life-long learning.

This category is divided into the two following themes:

1. Self-directed and self-regulated learning
2. Unbound learning

As previously discussed, criticism of school learning appears in all four dimensions. However, in this fourth category of *unbound ubiquitous learning* the contrast with externally regulated school learning is used to fuel active, ongoing, and independent learning. This is how Robin expressed the contrast between school learning and independent learning:

The school does teach some things. It’s just not particularly effective in my case at least. So I do go there to learn to some extent. The main difference is that when I’m on my own for the most part, I just learn what I want to learn at any given time. And, so whatever I happen to be interested in at that moment, I go and look. Whereas, in the classroom, it is set out in a curriculum and for the most part the teachers just kind of follow that curriculum, whatever it happens to say.

Finlay discussed the benefits of ubiquitous learning: “Learning, I think, should be a natural thing that follows what a person is interested in at an -- at any given time. Because that way you’ll get much more information”. These two examples carry a strong chronotope of never-ending learning, which is present in all life situations, regardless of the time or place. It seems that students who have discovered their own learning preferences and who engage in learning in their free time are very intrinsically motivated to learn more. Sometimes this carries over to the classroom learning, but not always, as seen in Robin’s comment above.

***Self-directed and self-regulated learning as the first theme for unbound ubiquitous learning category.*** Here, interviewees defined their own personal learning as something that happens everywhere, at any time. Jaime expressed it thusly: “I’ve realized that I can learn on my own.” Self-directed and self-regulated learning is something that fulfills a need. It is a very individual type of learning that greatly depends on students’ background knowledge, so it is

very hard to measure or fit into prescriptive learning objectives. Hence, “invisible learning” and “ongoing learning” describe it quite well. When asked what learning means to them, these three interviewees reflected on experiences deeper than simple information transfer or gaining knowledge.

Robin discussed learning as connections that allow one to see an entity as bigger than just the sum of its parts:

Learning as -- in its most general form, just -- the acquisition of something new to oneself, I really like it when, like, we learned one small piece? And then that one small piece fits in like a puzzle and you suddenly see a larger picture that you couldn't have seen without that little piece.

The new understanding that is gained when a piece of information completes the picture seems to be one of the things that makes learning so interesting for these interviewees.

Here, Finlay describes how ubiquitous learning merge with every day interactions. The quotation below is about coming across a new language, and how that encounter sparked curiosity towards many other subjects:

A friend showed me ... a language that was made up. And I thought that was really cool, so I started looking into it a lot. And so that eventually piqued my interest into constructed languages and linguistics ... which got me interested in geography and history and how language reflects culture and things like this, and it just kind of lead from one thing to the next thing, to the next thing, to the next thing and I never stop being interested in any of these things, despite them being very different from each other.

Finlay continued to discuss how reading about linguistics “in the context of constructing language” was much easier and interesting than learning about linguistics in classroom. One reason was the use of textbooks in class because “textbooks, rather, are very dry. And that makes them harder to use...to learn from,” and another reason was an interest in understanding how languages function on a general level.

This ubiquitous learning happens everywhere, all of the time, and is based on personal interests. The chronotopes of descriptions for ubiquitous learning span over classroom and free time. Ubiquitous learning is seldom acknowledged in formal education. Sometimes these interests intersect with school subjects, but the learning is not done because of an external authority like a teacher, but because of internal curiosity. Robin discussed a situation in which something learned outside school was connected to the classroom learning:

When I first got interested in ecology, I did some research on it. And I learned about hydrothermal vents at the bottom of the ocean, and how the food webs down there are based on chemo synthesis. The synthesis of energy -- from chemicals rather than photosynthesis -- like, basically everything else? And when that finally came up in class, I was able to utilize that knowledge.

Robin mentioned having a lot of different interests, and when asked by the interviewer why learning feels important, the answer was as follows:

Mm. It's kind of hard to explain; it's not like a logical thing, that I've decided really. It's more of a natural inclination to want to know certain things, I guess. My family tends to be a curious bunch.

While curiosity is an important part of self-directed learning, certain events in the classroom can also spark learning to become more ubiquitous and unbound than before. Jaime described an adverse experience in the classroom and discussed how that event changed the perception of learning. The main difference between showing ownership of one's own learning and being a self-directed learner is in the way this increased learner agency changes the perception of the act of learning. This is how Jaime described the change:

And then second semester, I got an A, because I actually took my education in my own hands and made it work. I'm glad that that [adverse] experience happened, I would say before I had the experience, -- I was -- I guess I'd have to say I was a passive learner, I'd kinda let people teach me stuff, instead of going and learning it for myself.

This seems to be the change from being the object of the act of teaching to being the subject of the act of learning. Jaime talked about how the adverse situation changed the mode for learning:

I've realized that I can learn on my own, too. And like I'm not -- I don't know. I guess they just opened my eyes a lot to how I can learn. And this summer, reading those like, those couple books and seeing how what I learned and how I can like, like I actually learned from reading a book, cause I do read a lot.

There seems to be a difference between learning that is done for school – for a grade – and learning that is omnipresent, both temporally and locally.

***Ubiquitous learning as the second theme for unbound learning category.*** Students who discussed unbound learning in the interviews desired more choices in their classroom learning. Finlay expressed it as being contained, which led to the description of being a “classroom sheep,” as previously discussed under “going through the motions” theme in *belonging to school* category. It is noteworthy to mention the general awareness of situationality and contextuality that Finlay exhibited by saying how the same learning experience was enjoyable for other students. It seems that students, who engage in unbound learning in their free time, also have greater expectations for the classroom learning. This is how Finlay described it:

And then the lack of choices in [subject] definitely like, it made the class feel kind of cage-y? kind -- of like there was -- you are just kind of sitting in a box waiting to be pulled out by the bell. For some people, it was a really enjoyable class and I'm happy for them. But, it wasn't that way for me, so, I just kind of felt -- I don't want to say trapped by the class? Because that feels overdramatic? Melodramatic? But it's that kind of a

concept, just watered down? Contained, maybe.

The interview then turned to life-long learning, and Finlay illustrated the benefits of natural learning, contrasting that with the more standardized learning that occurs within the classroom. Finlay clearly labeled the unbound learning as preferential:

Um -- at least, when I learn the way that I like to learn --- And I'm kind of flowing through information, I get a really good feeling out of it. I don't want to say it's a rush, 'cause it's not quite -- it's more delayed and drawn out than that? But it's a really pleasant kind of joyous, blissful feeling as I'm learning all these new things and having a great time. And that's something that nobody should be without, for one? But it's also - - I have no like concrete evidence for this, that I can cite, but I've got to imagine it's good for people to keep learning. It -- it -- it's got to be good on a physical level at the very least, and it makes -- and it helps you practice staying good at learning, which is important. Well, good at learning in the way we're taught? Because most of the ways we're presented with information to learn is the standard and you have to get good at the standard, which is a bad thing, I think. You have to get -- if you have to become skilled at learning? Then that's probably not good, because we learn naturally, to begin with.

The natural and enjoyable learning described above seemed to define unbound learning. It also seemed to contrast with Finlay's perceptions of the standardized learning experiences. Robin had similar thoughts about unbound learning:

Well, I think that a free-form kind of learning is the kind of learning that humans are set up to do? Um, I don't really have any concrete evidence for that, but it seems to -- it's definitely what feels natural to me and it's what I've seen in others, seeming to be natural. Um, the lock-step system has definitely had an effect on me, perhaps less than others, for which I'm thankful, but I -- I've de -- I've definitely watched people around me lose the desire to learn. And I've noticed it to some extent within myself. Just kind of like, um, demotivating me in small ways.

The "lock-step system" described by Robin seems to refer to similar learning experiences that Finlay described. These students were well aware that they do not have any evidence that unbound learning is more beneficial than formal learning, but both interviewees discussed demotivation as a result of classroom learning. It was not a good personal fit. Considering the expressions students used – Finlay's "I've felt that beaten out of me a little bit. My drive to learn" and Robin's "demotivating me in small ways," – it is clear that even students who engage in learning during their free time may be adversely affected by certain instructional choices. During the interview, Robin also discussed what might be a better way of teaching, especially one that supports unbound and ubiquitous learning (S = student, I = interviewer):

S: On the whole, I think learning is better if it's, uh, self-directed and um, more free-form? ... The kind of strict everyone in lock-step-type learning seems to



drain the desire to learn from participants? I have a tendency to do so. It seems to me that that's not healthy and that therefore neither is that method of teaching.

I: What would be a better method of teaching?

S: Well, optimally, it would be something where everyone would pursue their interests -- their -- their interests and talents and the role of the teachers would be something more akin to introducing them to new opportunities and new things that they might be interested in?

I: Mm-hmm.

S: Or, helping them along with whatever it is they're trying to study and --become proficient at. But it would be a difficult thing to set up, however. Especially coming out of the lock-step system.

Unbound learning seemed to be personally important and gratifying to these students, both inside and outside the school. It appears that they have developed a strong agency for their personal learning. This agentic and ongoing learning undoubtedly contributed to their classroom learning in the form of greater awareness of their individual learning process. However, it is concerning that some students perceive formal learning to be a hindrance to their own learning. As Robin stated it: "Really the worst thing about school is when you aren't learning anything. I learn more in my own."

### **Summary for Categories of Description**

The four categories of description display students' perceptions of their learner agency as it was seen to emerge from the interviews when the narratives of learning experiences were analyzed to find differences and similarities. In the *detachment* category there is very little intentionality used in classroom engagement because students are trying to pass the exams instead of really learning the content. However, due to the rebellious strain in some of the expressions, it appears that students are using their agency and making decisions about their own learning. In the *belonging* category students appear to have more intentionality in learning because they experience the respect while engaging in the classroom and going through the motions of compliance with learning activities. Conversely, learner agency in this category is slightly diminished due to the lack of choices and emphasis on compliance. In the category of *synergy* the descriptions focus more on students' awareness of their own learning needs. Typical for the synergy of ownership is to display stronger intentionality and emphasis on the importance of life-long learning while being collaboratively guided by the structure of the formal learning institution. In the final category of *unbound* learning students pursue their autonomous learning habits both inside and outside of the classroom. They exhibit strong learner agency and the ability to understand the interplay of the structure and agency within formal education. Both the intentionality of learning and the meaningfulness of learning are very high in this last category of description.

The categories of description have conceptual connections. Considering the fundamental concepts used in formulating sub-questions for this inquiry, I decided to display the connections in a table. The concepts and constructs of learning, engagement, and intentionality were present in the interview protocol. Self-regulation was assumed to be discussed under choices and descriptions of studying and learning. Ownership was very evident in students' responses; it was used by all participants and mentioned total of 50 times during the interviews. The table 5, below, displays the relationships between descriptive categories and components of learner agency, including the perceptions of learning and engagement.

Table 5  
*Students' perceptions about the components of learner agency by categories of description*

	Learning	Engagement	Intentionality/ forethought	Ownership	Self-regulation
Descriptive categories					
Detachment	Earning a grade/not failing	<b>Missing real-life connections</b>	<b>Passing the test versus learning the content</b>	Choosing not to do engage/do homework	n/a
Belonging	<b>Going through the motions</b>	Being a classroom sheep	To do exactly what the teacher tells	<b>Dependency from teacher and other students</b>	Influenced by the class, teacher, work, needing help,
Synergy	<b>Permanent, life-long</b>	Listening to get information and trying to understand	Depending on personal curiosity	I make my own motions	<b>Synergy of ownership</b>
Unbound	Transformative endeavor	<b>Self-regulated and self-directed</b>	Trying to understand how to transfer learned	<b>Unbound, ubiquitous learning everywhere</b>	Personal desire and direction to learn and reflect

*Note: Bolded phrases are the themes found in categories of description.*

The general perception of learning is included into this table to show the progression of deeper learning from *detachment* category to the *unbound* category. In *detachment* category no conceptions of self-regulated learning were visible in the transcripts, due to the strong perception of disengagement, which was evident for example in statements: "school is just a completely different thing that I have to do" and "being in a class where I really don't want to be". Learning conception in the two first categories, *detachment from learning* and *belonging to the school community*, appears to be directed toward passing tests and reproducing information by going through the motions of classroom activities. This is different from the conception of learning appearing in the two last categories, *synergy* and *unbound*, where life-long learning and personal growth were emphasized over memorization. The depth of engagement increased from "missing real-life connections" and "being a classroom sheep" to trying to understand and self-regulate one's own learning. In the *belonging* category the strong dependency from teachers and other students seems to be decreasing learner agency.

Engagement is influenced by the teacher, class, work, and other students. However, dependency seems to make students want to “do exactly what the teacher tells”, which increases the perception of belonging to the school community.

Intentionality and ownership of learning are important in descriptive categories of *synergy of learning ownership* and *unbound ubiquitous learning*. In these two categories, learning becomes a personal life-long endeavor that changes students’ lives and perceptions of the world. There is a difference in the degree of self-direction and self-regulation between these categories. *Unbound* category focuses on independent learning, while *synergy* attempts to merge the personally meaningful learning with school studies. Very strong ownership in the area of interest or guiding one’s own learning process, e.g. “I don’t need 30 repetitions” may shift the focus from collaboration towards extensive independence in learning.

### **Conclusion of Research Findings**

This research investigated the perceptions that high school seniors have about their learning experiences, especially as it relates to learner agency. The analysis produced an outcome space of four qualitatively different categories of description for students’ collective conceptualizations of learner agency. The findings from the data were displayed within the categories of description, each category including two themes. The categories of *detachment from learning*, *belonging to the school community*, *synergy of learning ownership*, and *unbound ubiquitous learning* are logically and hierarchically connected to one another. Perceptions of learning and engagement change from external in *detachment* to internal in *unbound* category. Intentionality and ownership of learning increase from *detachment* to *unbound* category. Self-regulation of learning was not evident in *detachment* category due to the perceived lack of choices, and the experience of being taught being stronger than the experience of learning.

The labels for final categories of description contain wording that did not emerge from the interview transcripts. They are a result of the abductive analysis method and aim to describe the variation in students’ perceptions of their learner agency. Phenomenography as research methodology “implies an abductive type of analysis, moving between empirical data and theoretical concepts to let one illuminate and contribute to the other” (Limberg, 2008, p. 613). It is important to remember that the categories of description do not label individual students as belonging to one category or another. Only perceptions are categorized, not students. All interviews had perceptions spanning at least three different categories – some interviewees’ perceptions of learner agency spanned all four categories.

## Chapter Five: Discussion of Results and Conclusions

This chapter discusses the results displayed in the Chapter Four and examines the implications for the findings of this research about learner agency. This study aimed to describe the conceptions that high school seniors have about their learning experiences in order to understand the perceptions students have about learner agency. The data was collected with thematic interviews and analyzed using the phenomenographic method. This chapter first provides a summary of the problem, then a summary of the research findings, displaying the outcome space and answers to research questions. Then, the research findings are interpreted in the context of the theoretical framework of learner agency. The literature review from Chapter Two is utilized to situate the results into the field of educational research and to engage in contextual meaning-making. Finally, the limitations of the study are discussed, along with recommendations for educational policy and instructional practice, followed by reflection on the doctoral work and personal growth as a scholar practitioner.

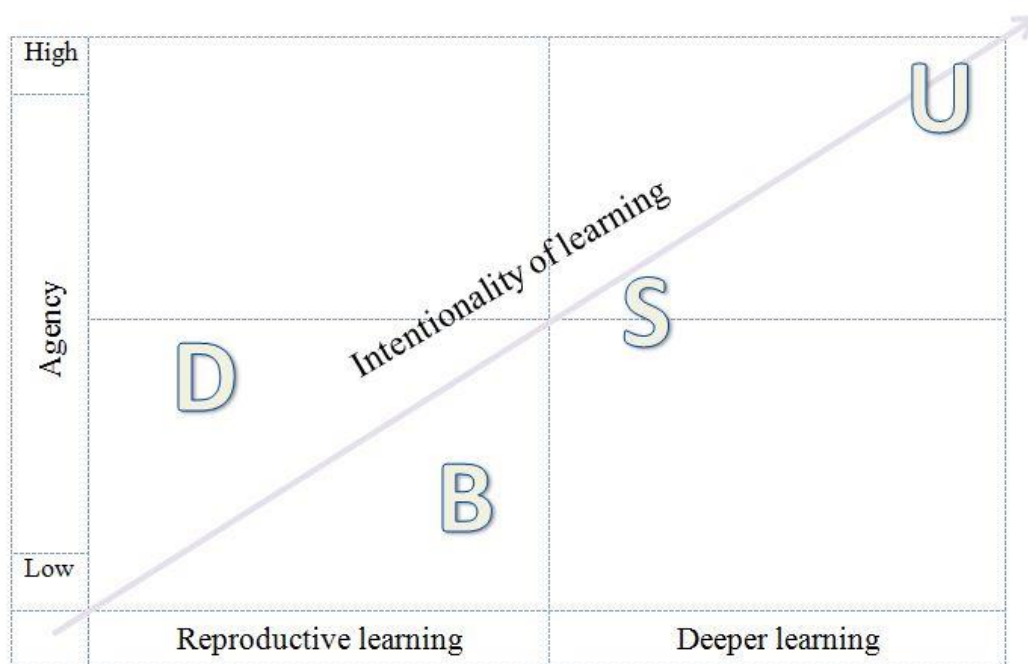
### Summary of the Problem

Learner agency is an important socio-educational construct used in education to understand how students make sense of their ownership and intentionality of learning engagement. Distinguishing learning experiences from the experience of being taught provided the viewpoint for describing learner agency. Students' perceptions about their learner agency and their conceptions about engagement are important information for educators, who aim to provide more opportunities for students to engage in deeper learning. Furthermore, educational policies should aim to increase the meaningfulness of students' subjective learning experiences in order to grow human and social capital during formal education. Students need to be better prepared to thrive in knowledge societies where choices are more abundant than in past.

### Summary of Research Results

Qualitative data was collected through nine individual interviews with high school seniors. These thematic, or semi-structured, interviews were then transcribed and analyzed using phenomenographic analysis, which provided an answer to the central research question: *What are students' perceptions of their learning experiences?* The analysis of the data collected about students' perceptions of their learning experiences yielded an outcome space containing four qualitatively different descriptive categories: 1. *detachment from learning*, 2. *belonging to the school community*, 3. *synergy of learning ownership*, and 4. *unbound ubiquitous learning*. These categories of description have a hierarchical relationship, with intentionality of learning and student engagement in learning ownership growing from *detachment from learning* to *unbound ubiquitous learning*. The data displayed great variation ranging from minimal intentionality for learning to strong tendency and interest for independent, informal, and non-formal learning.

**The Outcome Space.** The final product for phenomenographic research is the outcome space, which is structured to display the collectively different ways of experiencing the phenomenon. The outcome space must be parsimonious, yet capture the critical variation found in data (Marton & Booth, 1997). For this inquiry into students' perceptions of learner agency, the conceptualization of the outcome space contains four qualitatively different categories of description, as displayed in table 5. Students' perceptions are the verbalized conceptions of their learning experiences. The classic distinction between surface and deep learning approach (Marton & Säljö, 1976) was replaced by reproductive and deeper learning because students in this research discussed surface learning with the expressions like "just for the test" or "memorization and retention are valued". The relationships of students' perceptions are displayed in the visual conceptualization of outcome space for learner agency shown below in Figure 3.



D = detachment, B = belonging, S = synergy, U = unbound

Figure 3. Outcome space for students' perceptions of learner agency. A visual conceptualization of the hierarchical relationship between intentionality, agency, and quality of learning.

Intentionality of learning increased from detached reproductive learning toward unbound, meaningful, and deeper learning. Low learner agency related to reproductive learning in the data, being situated in categories of *detachment* (letter D) and *belonging* (letter B). An exception for higher agency in *detachment* category made the decisions students discussed making about their compliance, especially when they actively chose not to engage, hence the elevated position for letter D in the image. Stronger agency was evident in categories of

*synergy* (letter S) and *unbound* (letter U), where students discussed their intentional learning choices and desire for deeper, meaningful, and transformative learning. *Belonging* represents highest compliance and emerging intentionality in learning. Highest intentionality and agency were found in *unbound* category, where students engaged in individual learning both inside and outside of the school structure.

*Detachment from learning* was evident in the interviews when students perceived that their schoolwork was missing real-life connections and emphasized passing the tests above learning the content. This category had two themes contributing to the description of students' perceptions of learner agency: learning is (a) *missing real-life connection*; and (b) *earning a grade versus learning the content*. At times students decided not to comply with goals and expectations. Learning was perceived to be reproductive, but students appeared more assertive about their own learning needs, which increased the perceived agency. Intentionality of learning engagement was very low, due to the focus on passing exams and earning grades. *Belonging to the school community*, as the second category of description, included students' perceptions of their choices in the classroom context and compliance with learning activities. The two themes in this category were labeled as (a) *going through the motions* and (b) *dependency from teacher and other students*. The first theme described students' perceptions of compliance with the school structure. The second theme found in the *belonging* category emphasized the positive impact of mutual dependency between students and faculty, and among classmates, which defined the engagement and interactions in the classroom, contributing to intentionality of learning. Limited choices and opportunities for self-regulation decreased the perception of agency. The third descriptive category, *synergy of learning ownership*, included students' own definitions of their learning and also emphasized lifelong learning. The themes in this category were (a) *ownership of learning* and (b) *permanent, life-long learning*. In the first theme, *ownership*, students reflect on their own learning and take action if they don't understand the content. Learner agency grows with ownership of learning, and descriptions of deeper learning in this category support the intentionality of learning engagement, contributing to the theme of *life-long learning*. The fourth descriptive category, *unbound ubiquitous learning*, seemed to occur in students' perceptions when students had an individual drive to learn. This fourth category has two themes: (a) *self-directed and self-regulated learning* and (b) *ubiquitous learning*. Students' intrinsic interest fueled the self-regulated and self-directed engagement in learning, both inside and outside of the school structure, which contributed to classroom experiences and further strengthened the perception of learner agency. However, this *unbound* learning goes well beyond school subjects and usually reflects numerous personal interests, making it invisible in educational measurements focusing on how well students retain given information. Yet, supporting this intrinsic intentional engagement in one's own learning process is essential for preparing students for life in the 21<sup>st</sup> Century.

**Sub-question one.** *What kind of learning interactions do students experience in the classroom?* As discussed in the previous chapter this research revealed different kinds of learning interactions and engagement strategies in the classroom. Some of the descriptive categories formulated from the learning interactions strongly emphasized the chronotopes of school structure and rules. This was very evident especially in the following themes found in the two first categories: *missing real-life connections, earning a grade versus learning the content, and going through the motions.*

Findings about learning interactions indicate that students are exposed to a wide range of learning-related verbal and non-verbal exchanges depending on the class and the instructional strategies chosen by their teachers. Some interactions were more conducive for agency and deeper learning than others. Interviewees acknowledged that even though they personally may have disliked a certain class other students may have enjoyed it and benefitted from the experience. Some of the choices for student engagement were tied to the instructional strategies, for example when students were simply recipients of transmission for the content and they spent their classroom time listening to a lecture and copying notes. Other disengaging situations included doing lots of homework, bookwork in the class, or participating as a group in busywork activities. Finlay eloquently described some of these classroom activities as requiring the students to be “classroom sheep” and just do what they are expected to do. Robin mentioned that one might not “need 30 repetitions of how order of operations works, to understand and to use it,” even if that was necessary for some other students. It seems that individualization might be important for learning activities to keep students engaged.

The interactions that supported students’ own learning were found under the themes of *synergy of learning ownership, permanent learning, and unbound ubiquitous learning.* Findings about these interactions indicate that students who have strong ownership of their learning also assume responsibility for their learning, regardless of what kind of interactions they are exposed to. Jaime expressed the growing ownership straightforwardly “It’s not the teacher’s responsibility anymore to make me learn; it’s my responsibility.” This self-induced ownership seems to lead to increased intentional engagement and collaboration in learning interactions.

**Sub-question two.** *How do students choose to engage in the classroom, and how do they describe the intentionality of their own learning?* Students’ engagement strategies varied by descriptive category and by the perceptions they had about the advantages of their engagement. Part of intentionality involves collaboration and using the resources that are available. The intentionality of students’ own learning started from the *belonging to the school* category, grew into conscious decisions in the *synergy of learning ownership* category, and further increased in the *unbound ubiquitous learning* category. Perceptions about the functional quality of learning changed significantly in the last category. Learning became a source of enjoyment and a tool for quenching curiosity, in addition to acquiring information and

complying with expectations, like finishing assignments and passing the tests.

As discussed in the previous chapter, it is important to remember that the outcome space only categorizes students' perceptions, not students themselves. Perceptions about intentionality of learning were nonexistent in the *detachment from learning* category, and students used expressions like "forced" to engage, getting "distracted," and being "concerned with passing." Every interviewee had learning perceptions belonging to the *detachment* category. The emphasis was on reproducing information, passing tests, earning grades, and how their learning was missing real-life connections. Students often discussed compliance instead of intentional engagement when they referred to the *belonging to the school* category. The stress was on compliance in the forms of trying to fit into the expectations of the school and society, and in extreme cases in presenting copied homework and avoiding truancy court. The descriptions students used included "going through the motions" to finish homework and do what is expected from students in the classroom, "spacing out" when the content gets too hard, and becoming a "classroom sheep" to reproduce the information presented by teachers. Mutual respect made it easier for students to collaborate because, as Nicky said, "I felt I mattered a little bit more in high school."

Engagement and intentionality changed in the third category, *synergy of learning ownership*. Students clearly described their ownership of learning, and making conscious decisions about their engagement. Some expressions used to describe ownership were to "volunteer" in the classroom, "participate" in discussions and activities, and "teach myself." In this category, students also made intentional decisions to not engage or participate in classroom activities or homework when it was not meaningful for their own learning purposes. While this seems opposed to the goals of formal education, it still describes the ownership and agency that students employ, and as such it contributes to their subjective well-being. In the *unbound ubiquitous learning* category, students engaged in learning activities, but also chose to pursue on their free time the information they perceived as important or interesting. This intrinsic motivation for deeper learning contributed to their classroom engagement.

**Sub-question three.** *What are students' perceptions of life-long learning?* All students participating in the interviews identified permanent and ongoing learning as important for humans. There were several reasons mentioned for the perceived importance of life-long learning. Some students emphasized the enjoyment that learning brings to humans. Others stressed the changing world bringing the need for ongoing learning and having an open mind. Yet another important reason for life-long learning was maintaining acquired skills, in addition to learning being perceived as important for mental well-being.

**Sub-question four.** *What instructional choices do students describe as being impactful for their self-direction and self-regulation?* Interviewees in this research shared the unanimous opinion that lectures were the least effective instructional approach in regard to supporting their own learning. Listening to direct instruction was considered to be a passive activity with



little opportunity for collaboration. Some interviewees discussed situations in which teachers did not seem to understand students' questions and were thus unable to help and support the learning process. Students mostly appreciated group work assignments but wanted to have more choices regarding them.

### **Discussion of the Findings in Relation to the Theoretical Framework**

Learner agency was the lens to first design the study about students' perceptions of their learner agency and then to observe and interpret these conceptions from interview transcripts. After diligently following the phenomenographic method to formulate the outcome space and the four qualitatively different ways of perceiving learning experiences, I engaged in meaning-making activities to interpret the findings as they relate to the framework of agency (Giddens, 1979, 1984, 1991; Emirbayer & Mische, 1998), learner agency (Bandura, 1986, 1999, 2006; Munford & Sanders, 2015; Deakin Crick et al., 2015) and ecology of agency (Biesta et al., 2015). As discussed in Chapter One, learner agency is a specific hyponym for human agency and thus is an important part of learning how to interact in society within the everyday "duality of structure and agency" (Giddens, 1979, p. 55). Distinguishing learning experiences from the experience of being taught was one of the essential viewpoints into students' perceptions of agency.

Learner agency, in the work of Bandura (2006) includes "four core properties: intentionality, forethought, self-reactiveness and self-reflectiveness" (pp. 164-165). These four properties appeared in the data contributing to the outcome space, but instead of directly reflecting the four final categories – *detachment from learning, belonging to the school, synergy of learning ownership, and unbound ubiquitous learning* – they were more clearly displayed in the hierarchical relationship between intentionality, agency, and quality of learning contributing to the formulation of the outcome space in Figure 3. At the beginning it appeared that time was not an important factor for learner agency, however, the importance of chronotopes arose while comparing the analyzed data with the theoretical framework. The final categories in this research were formulated from the perceptions of students' learning experiences, but to finish the analysis in relation to the theoretical framework, the two additional themes denoting agency reflected in these conceptions must be situated into the context of structure and agency. Without mentioning the words "classroom culture" students discussed the different learning experiences they had, outlining chronotopes they perceived to be helpful for their learning – or the opposite. Students also discussed power relations in the classroom, describing the effects on the intentionality of their engagement and learning. The two additional themes to be discussed in this section are: *chronotopes of students' perceptions of their learning experiences, and restraints and power relations in the classroom environment*. These two additional themes were visible in all four final categories, but displayed different contextual significance in each. According to Giddens (1991) the three crucially important parts

to understanding agency and structure in the frame of research are “contextual sensitivity, the complexity of human intentionality and the subtlety of social constraint” (p. 311). Therefore, discussing these two additional themes of *chronotopes* and *restraints* is of outmost importance. Both the chronotopes and power relations have strong significance for the perceived meaningfulness of learning, which also is a part of forethought, in addition to the direction and coherence (Bandura, 2006).

**Chronotopes of students’ perceptions about learner agency.** Intentionality of learning as the first core property of learner agency was visible in students’ expressions in the interviews when they discussed their own learning processes and the *synergy of learning ownership*. An example of intentionality and forethought in this category of descriptions is how students planned for their own learning and assumed responsibility for their own learning process, instead of expecting teachers to make the learning happen. The *synergy of learning ownership* relates directly to the interplay of agency and structure of signification, where interpretive scheme is successfully used to communicate personal engagement in studies (Giddens, 1984, 1991). Signification as a part of classroom structure is about creating meaning and knowledge through interactions. The learning perceptions in the *detachment of learning* and *belonging to the school* categories seemed to display less intentionality and mostly agree with the traditional time-space continuum of classroom learning, situating the major part of agency on the teacher’s actions. An example of this is the effect of enthusiasm that a teacher shows about a subject, and how students identify teacher’s instruction as the most important factor in their learning. In this view, learning is something that happens to students, following the structure of domination and emphasizing the power and authority in the classroom (Giddens, 1984, 1991). The conventional classroom chronotopes (Brown & Renshaw, 2006) related to domination appeared several times in the interviews, and students named behaviors like being present in class, listening to the lecture, going through the motions, finishing homework, and studying for the exams as examples of these chronotopes. This description of engagement as reactions to the structure implies that the educational structure is overpowering learner agency, making it harder for students to assume their own agency and display intentionality and forethought in the classroom setting. To support learner agency there must be more “forms of participation staff members recognize as legitimate” (von Duyke, 2013, p. 460). Ownership in learning is crucially important for agency.

It is essential to remember that agency is not something students have, like a skill or a trait. Agency is something students do as actors within temporal-relational contexts-for-action (Emirbayer & Mische, 1998). This agentic quality of engagement was visible in the *synergy of learning ownership* and *unbound ubiquitous learning* categories, where students discussed their own learning intentions expanding the chronotopes of learning well beyond the classroom. In these categories learning was seen as a source of enjoyment that extended to all areas of life, not just confined within the physical classroom or the temporality of school hours. This

invisible and unbound learning is seldom credited in formal education, because it does not fit into the prescribed curriculum design and instructional design models used in K-12. Considering the amount of information students are exposed to on any given day, it might be very beneficial to find ways of incorporating invisible, ubiquitous, ongoing learning into the educational experiences that students have.

A noteworthy finding is how, sometimes, the increased learner agency may seemingly act against the goals of formal education. This happens when students' intentionality leads to avoidance and forethought is used to calculate the minimum necessary amount of schoolwork needed to earn a passing grade. Students stated that they do not want to spend too much time on homework, especially when it seems unnecessary, and they only finish the assignments they need to in order to pass with an acceptable grade. Students are operating within the structure of legitimation, being aware of the norms, and avoiding sanctions (Giddens, 1984, 1991). This interplay of agency and structure ties the chronotopes of learning space and time to the second theme in this discussion of results: restraints and power relations in the classroom environment (Brown & Renshaw, 2006). Bandura and Locke (2003) emphasize the importance of self-reflection and agency by stating that the "theory embodying feed-forward self-regulation differs from control theories rooted solely in a negative feedback control system aimed at error correction" (p. 87).

**Restraints and power relations in the classroom environment.** While discussing agency as the experiences of effort and authorship, it appears that the structure of normative expectations in education may stifle growing learner agency. Students in this research expressed their engagement in the *detachment from learning* and *belonging to the school* categories by describing how they were physically present in the class, but not actively engaging. Sometimes students found it easier to "be a classroom sheep" than to question the meaningfulness of the practice for teaching and learning. Domination and legitimation, the structures for power and sanction (Giddens, 1984), may prevent learner agency from growing in the classroom if they constantly overpower signification. In such a dominated environment, there is very little use for students' self-regulation, and it seems that the emerging agency can indeed be stifled. This is aligned with the research of Biesta et al. (2015) regarding how the learning environment and instructional interactions are either helping or hindering learner agency. The social construction recreates itself through structure and agency, and choosing to be a "classroom sheep" to meet the normative expectation further strengthens the structure of legitimation. In the categories of *synergy of learning ownership* and *unbound ubiquitous learning*, students' perceptions of their learning experiences were less restricted, and they used their agency to use communication as the interaction, in order to strengthen the structure of signification (Giddens, 1984, 1991). Students also reflected learning from one's mistakes and using adverse experiences to strengthen self-regulation and ownership of learning. There appears to be a certain type of resiliency attached to the descriptions of assuming strong

agency after adverse learning experiences. However, analyzing the appearance of that resiliency goes beyond this research.

Restraints and power relations in classroom were evident in students' descriptions of learning ownership or the lack of it. Agency is about having choices and using critical thinking to make well-informed decisions, which in a classroom structure means that students must have some control over their learning. Learning institutions – schools and classrooms – form a major context for students' secondary socialization process. Student engagement is one of the results of the mutually beneficial relationships that exist in high school (Bronfenbrenner & Ceci, 1994; APA, 2015). This was expressed by interviewees in the category of *belonging to the school*. Students discussed their experiences of reciprocal relationships with faculty and other students: "I felt I mattered a little bit more in high school" (Nicky). Learning to collaborate and feeling that one belongs to a community of learners is an important outcome for K-12 education.

Having choices is a prerequisite for ownership (Leotti et al., 2010). The ownership of one's own well-being was visible in the *detachment from learning* category. Students sometimes chose to mentally "check out" when the instruction was too hard, too easy, or too boring. Students also exhibited strong sense of ownership in the *synergy of learning ownership* category when they decided to leave homework undone partially because they were happy to receive a C grade, but also in order to maintain work-life balance and increase their individual sense of well-being. This obviously is not beneficial for the student or the school. Interviewees discussed positive perceptions of ownership in relation to their own learning process in the *synergy of learning ownership* category, showing strong investment in their learning. They mentioned, for example, the growth they had noticed in their own learning and thinking, and discussed the ability to learn from one's own mistakes and from collaboration with teachers and other students. Following the work of Emirbayer and Mische (1998), it is easy to see how the chronological trajectories of classroom learning were extended to students' lives outside of the school environment by encouraging and empowering students to learn more on their own.

Based on the interviews, students' common perception regarding learner agency is that they do not have enough choices during their school days in regards to their learning process and learning experiences. Quinn expressed it like this: "Well, I guess if you have more like choices and more options, you don't feel like it's as much of like a requirement." One theme in Quinn's interview was the notion of learning being very different when the learner is passionate about the subject, hence the slightly negative perception of learning only as a requirement. Providing students with choices, to avoid the norm as the sole modality, could better balance structure and agency in the classroom (Giddens 1984, 1991). Finlay discussed the experience of having inadequate opportunities for self-regulation and being contained in the classroom as the follows: "And then the lack of choices, definitely like, it made the class feel kind of cage-y." It appears that, in these examples, the structure is not balanced well with agency. Structure

tends to take over the interactions in the classroom, leaving little or no room for collaboration, co-regulation, and emerging agency. Helle et al. (2013) “urge teachers and schools to keep promoting perceived self-regulation throughout the high school years” (p. 264), in order to increase agency and to prevent students’ perception of their self-regulation opportunities from declining.

**Summary of findings in relation to the theoretical framework.** Students’ perspectives of learner agency – as seen in the narratives created during the interviews and transcription – depict an image of learners who wish to have more autonomy. This finding is well aligned with the current research of learner agency (Kumpulainen et al., 2014) as well as Bandura’s (1999) work about agency as socio-cognitive phenomenon, where learners are “self-organizing, proactive, self-reflecting, and self-regulating” (p. 156). Interviewees identified the themes of interpersonal communication, temporality, and reciprocity discussing collaboration and being heard as important aspects for taking more ownership of their learning. These themes align with the modalities of structuration theory, reflecting the interpretive scheme that supports learner agency better than facility or normative expectations (Giddens, 1984, 1991). The two additional themes arose from comparing the analysis to the theoretical framework – *chronotopes of students’ perceptions of their learning experiences*, and the *restraints and power relations in the classroom environment* – were visible in all four final categories, displaying different contextual significance in each. In the classroom structure appears to easily overpower agency. Investing time and resources for individual interactions and building rapport was identified as a significant factor for increased school well-being (Long et al., 2012) and constructing individual sense of learner agency (Biesta et al., 2015).

### **Discussion of the Findings in Relation to the literature Review**

Supporting learner agency clearly belongs to the socio-cognitive constructivist practice, which does not implicitly agree with the curricula and instructional design models predominantly used in K-12. The learning process needed for a knowledge society is fundamentally different than the one required for an industrial or agrarian society. It is crucial for students to be exposed to the knowledge accumulated by the previous generations and gain the culturally essential skills of reading, writing, mathematics, and basic knowledge of history and sciences. However, it is equally important for students to become well-prepared to function in the knowledge society, which presents a need for continuous and independent learning so that students become capable of independent judgment and supporting one’s own opinion with facts. To achieve this goal, contemporary research recognizes the benefits of a learner-centered approach in instruction (APA, 1997, 2015). The results of this research imply that learner-centered approaches were not predominantly used to guide classroom practices, as students mostly discussed classroom activities, assignments, and assessments being designed and chosen by the teachers. Providing students with an opportunity to participate in

the planning process would strengthen both the learning process and students' agency.

**Education for the 21<sup>st</sup> century.** The learning needs for 21<sup>st</sup> Century knowledge societies are inherently different from those of industrial societies (Jaros & Deakin Crick, 2007). Not only has information become more free and abundant, but the understanding of the learning process has evolved from reproducing existing knowledge into a meaning-oriented practice of knowledge creation. Participants emphasized the difference between memorizing something and really learning in the *detachment from learning* category, and described their schoolwork missing real-life connections. Quinn explained it like this: "actually knowing it, just not memorizing it for a few weeks, to take a test. The difference is, if you just memorize it, then you won't have it if you need it later." However, in the category of *belonging to the school community* they sometime perceived being successful in tests as a measurement of good learning. Considering the statement of Bransford et al. (2000) how "transfer from school to everyday environments is the ultimate purpose of school-based learning" (p. 66), it seems that interviewees understood the importance of transferable knowledge, but also considered the assessment and evaluation practices to be a valid measurement of their learning.

Participants identified meaningful learning as their preferred way to learn in the comments that created the *synergy of learning ownership* category, and they emphasized permanent life-long learning in the interviews. There was a clear distinction between learning "real-life" skills or knowledge and learning to pass a test or graduate. Participants emphasized the learning process and engaging with the materials and other students. This finding aligns with what Boekaerts (2016) wrote about contemporary research focusing on "integrative approaches to motivation and engagement" (p.76). The strongest agency was shown in the comments belonging to the *unbound ubiquitous learning* category, in which students described their self-directed and autonomous learning experiences as being tangential to the schooling they did. There was some overlap between classroom learning and independent learning, but not much. Casey's response to the inquiry about learning that happens in one's free time and whether it is applicable at school was: "See, I want to say yes, but at the same time, I can't think of a situation like that? Because most of what we learn in school is very tight down to the subjects and not really on basic knowledge or life."

**Deep and deeper learning.** Interviewees also discussed the difference between deep and surface learning by referring to learning as short term memorization in order to pass the tests versus learning that is significant and permanent due its meaningfulness. In the category of *synergy of learning ownership* Alex expressed learning to be a transformative experience: "I'm changing all the time because of the things I learn." In the interview this description of learning was not tied solely to school context, but was a statement of what learning is on personal level. This certainly provides insight into the depth of students' perceptions, and ties the results into the secondary socialization processes (Bronfenbrenner 1979, 1989) and the fact acknowledged by other researches: school is only one intervention shaping students'

worldviews (Rajala et al., 2012). In fact, school learning appears to be separated from students' everyday experiences. This was evident when students discussed the school learning not meeting their real-life learning needs or interests.

Learning functions as an integration of two different processes: the student's ongoing external interaction with the teacher, peers, and instructional materials, and the internal acquisition processes through which the student's intrinsic interest extends learning beyond the classroom (Illeris, 2003; Lepper et al., 2005). At best, this works like an example Finlay provided during the interviews while discussing a specific school subject:

"School help me there at least. Like it -- it gave me, it told me that that was something I was interested in. It -- it presented me with that at an entry level, so I could go pursue it at a deeper level on my own."

APA (2015) provides straightforward guidance about supporting learning ownership:

Individualize the pacing of instruction as much as possible. Some students take longer to master the material than others and should be given that extra time. Allowing students a role in setting timelines for completing tasks and monitoring their own progress helps them focus on process (acquiring mastery) in addition to the outcome (performance).

(p. 18)

Learning is a relational phenomenon. Intersubjectivity and socially shared learning are pedagogically important parts of cognition and motivation that contribute to the choices and motivation students experience and exhibit in the classroom (Olson, 2003; Järvelä et al., 2008). This requires open communication between teachers and students. In addition to teacher-student communication, students' communication and collaboration among themselves is crucial for deeper learning. It is important to remember that classroom learning is a socially shared activity which may become socially constructed self-regulation (Järvelä & Järvenoja, 2011). The mutual respect students described in the category of *belonging to the school* community is an important part of the communication that makes self-regulation and co-regulation possible in the learning environment. In the *synergy of learning ownership* category, students described collaboration during group projects and both the positive and negative aspects of co-regulation. In some examples, students had little or no control over whom they would be collaborating with, which might reduce both synergy and engagement. Furthermore, classroom communication should be a dialogue in which both parties are trying to understand each other. In the descriptions of learning experiences in *detachment from learning* category, it seemed that teachers and students sometimes did not understand each other – several students described situations in which the teacher did not understand or respond to their question. Unfortunately, these problems strengthen the status quo in which learning is not meaningful, in spite of the fact that every human is born with the capacity for meaningful learning. Säljö (2012) wonders what could be done to help students "to continue seeing themselves as committed learners within the frames offered by schooling?" (p. 12).

**Self-direction and self-regulation.** Students' personal goals, interests, and motivations are often not in line with the curriculum, in which case they are easily dismissed and separated from the official learning goals. This makes it harder for students to become invested in their own learning process and motivated to engage in classroom activities. Perception of having control over oneself and one's environment is integral for the development of students' emotional well-being at schools (Leotti et al., 2010; APA, 2015). Supporting students' well-being is attached to academic achievement in recent research (e.g. Tuominen-Soini et al., 2008; Wang & Holcombe, 2010; Pietarinen et al., 2014).

Students' preference for deeper, meaningful learning over reproductive learning is important for their self-regulation. This was evident in the *synergy of learning ownership* category, in which students described the growth of their own learning process and assuming authorship over their learning. This finding is in agreement with Kereluik et al. (2013) conclusion of teachers needing "skills to facilitate not just interactions, but meaningful interactions and relationships" (p. 133). Building a collaborative learning environment where students can also learn from each other is important. Emery described the help from peers like this: "It's like they can kind of help you and show you how they understand it. Like how they -- kind of apply it."

In the *unbound ubiquitous learning* category students seemed focused on their own learning process and described pursuing learning experiences – both formal and informal – that were personally meaningful. This connection is important, and already Bruner (1996) noted about learning as going beyond than just "the information given" (p. 73). Meaningfulness of learning was described as a blissful experience that everyone should have, and the perceptions emphasized the importance of learning activities for human cognition. The surprising part about meaningfulness was how it was also mentioned in the *detachment from learning* category as one of the reasons for disengaging when the learning content had no real-life applications. Creating opportunities for students to engage in self-regulation and self-reflection in the classroom would contribute to more meaningful learning experiences. This was also noted in the research of Niemi et al., (2015) as the importance to have "activity in the classroom that recognizes pupils' active agency and sense-making" (p. 147).

**Summary of findings in relation to the literature review.** The results of this research study were examined in reference to the literature reviewed in Chapter Two. To meet the needs of 21<sup>st</sup> Century societies, learning must be understood as global and relational activity, in which transfer of learning is emphasized over other goals. However, the results of this research indicate that every participant had perceived other goals being emphasized over transfer of learning. This was evident in both *detachment* and *belonging* categories. This is very concerning finding, considering how the purpose for school-based learning is to transfer the skills and knowledge to students' everyday environments (e.g. Bransford et al., 2000; Shum & Deakin Crick, 2012; Knight et al., 2014).



In the category of *synergy of learning ownership* participants wished for more autonomy and opportunities to self-regulate. Contemporary research recognizes how beneficial students' perceptions of autonomy are for their learning (Helle et al., 2013) and the importance to provide opportunities for self-regulation and co-regulation in classroom (Järvelä & Järvenoja, 2011). The *synergy of learning ownership* also marked a transition in data, where students' perceptions shifted from being an object of teaching to student becoming a subject of one's own learning, emphasizing decision making and using resources independently. Similarly, Biesta and Tedder (2007) conceptualized achieving agency resulting from "the interplay of individual efforts, available resources and contextual and structural factors as they come together in particular and, in a sense, always unique situations" (p. 137). Yet, it is important to remember that agency is not something people have, but something people do (Biesta et al., 2015). Concurrently, this same sense of collaboration is present in the *synergy of learning ownership*, which emphasizes students' active choices about their learning and engagement within the classroom structure.

There is no magical formula to increase learner agency. Like learning, agency is situational and contextual, and has to be negotiated by the participants in each teaching-learning interaction. Supporting students' agency in classroom and providing opportunities to perceive oneself as a competent learner could contribute to reproducing the pleasant learning experiences outside of school environment. Very positive results were the descriptions of learning enjoyment expressed in the *ubiquitous unbound learning*. This aligns well with the research of Anderman et al. (2011), who discussed the positive effects of "student autonomy and collaboration, encouraged peer interactions and positive teacher-student relationships" (p. 994). The statement in the interviews was learning being so "incredibly fun", which seems to relate to the experience of flow (Csikszentmihalyi, 1975, 1997) as "a really good feeling and doing it just makes everything else feel good". Hopefully every student will have a learning experience like that.

### **Study Limitations**

This study has limitations. The research was conducted in one high school, and the small sample size of nine students may have had an effect on the variation found in perceptions of learning experiences. Using several school districts and conducting more interviews might have produced a different outcome space, with more descriptive categories.

Participants volunteered to be interviewed. While the invitation to participate in this research was distributed to all high school seniors via the school bulletin, only nine students were willing and available to be interviewed. Hence, there was no other sampling strategy beyond convenience sampling, and the motives for students to participate in the study remain unclear. The participants might not necessarily be representative of the school or district population. Considering the sampling strategy and the small sample, the results should not be

widely generalized.

Thematic interviews as the data collection method represents both a possible strength and weakness for the research. Individual interviewing provided rich and deep data to be analyzed. It is possible that the researcher's personality and non-native English accent may have had an effect on the data that was recorded. Using a foreign language in analyzing and interpreting data was both a challenge and an opportunity – concepts have an increased level of complexity when considered in the frame of Finnish and English languages. For example, the translation for the word “osallisuus” in social sciences was defined as “inclusion”, “(social) engagement”, “participation”, and “(empowered) involvement” (Rouvinen-Wilenius, Aalto-Kallio, Koskinen-Ollonqvist, & Nikula, 2011).

It is possible that the researcher's bias towards deeper learning approaches and subjectivity of learning process has influenced the data collection and analysis, in spite of an ongoing effort to bracket all presuppositions. Also, as the interviews were conducted just once with each participant, the interviewees may have had recent unpleasant experiences causing a bias in their responses for that particular day. Or they may have had something else that happened in their lives at that time. Therefore, the interviews might have resulted in different information on another day.

### **Recommendations for Practice and Future Research**

The purpose of this research was to examine high school seniors' perceptions of their learning experiences in order to describe how students conceptualize their learner agency. The findings of this study are aligned with current research about learner agency. Translating the theoretical knowledge of structure and agency to educational practices requires transformations in how educators and policy makers perceive learning. The results support the following recommendations for practice, policy, and further research, emphasizing the students' role in their own learning processes:

- Engage in learner-centered practices (practice)
- Support students' preference for deeper learning (practice)
- Acknowledge students' subjective experiences, personal goals and interests (policy)
- Credit informal learning (policy)
- Strengthen the *synergy of learning ownership* (future research)
- Prevent detachment and negative agency (future research)

As a scholar-practitioner I wish to go beyond a new conceptualization of how learner agency is perceived. The critically consider practical and pedagogical implications of the recommendations and suggestions about how to bridge the theory and practice are discussed below.

**Engage in learner-centered practices.** Learner-centered educational practices are based on decades of educational research, and focus on building critical and creative thinking

skills that will enable students to practice perspective-taking as a part of their everyday learning (Qureshi et al., 2010; APA, 2015). This recommendation is two-fold: Firstly, it is important for students to be treated as active agents in their own education. Secondly, it requires significant changes in teacher education. In order to engage in student-centered classroom practices that enhance learner agency, teachers should also have experienced learner-centered education during their own studies. This recommendation is tied into the duality of structure and agency (Giddens, 1984, 1991), which is a part of the learning environment, presenting both challenges and opportunities for agency to emerge in the social context. The results of this research show that students, who perceive their role as recipients of information transfer, do not engage in deeper learning, but feel that they must be classroom sheep. Contemporary educational research supports learners' active role in the learning process (Linnansaari et al., 2015). Learner-centered practice supports students' intrinsic intentional engagement in one's own learning process. The principles for learner-centered practice have four areas of focus to support active learning process: (1) including learners in decisions about how and what they learn and how that learning is assessed; (2) valuing each learner's unique perspectives; (3) respecting and accommodating individual differences in learners' backgrounds, interests, abilities, and experiences; and (4) treating learners as co-creators and partners in the teaching and learning process (McCombs, 2000). This recommendation is not only for students' but covers also professional learning. Both the teacher education and the professional development must be transformed to follow contemporary educational research that supports learner-centered practices.

**Support students' preference for deeper learning.** Intentional and transferable learning is deep and meaningful on personal level. Classroom is just one locus for learning. Teachers should avoid causing students to favor surface or strategic learning over deeper learning by too tightly regulating students' experiences (Marton & Säljö, 1976; Mercer, 2012; Wenger-Trayner & Wenger-Trayner, 2016). Students may retreat to surface learning if they perceive that passing tests is more heavily emphasized in the classroom than learning the content. When legitimation overpowers agency in the school structure, students think that school has no real life connections and is just a completely different thing they have to do (Giddens, 1979, 1984). Following the results of this research, the focus on supporting students' learning success should be on deeper learning instead of test-passing, and encouraging legitimate engagement in classroom. APA (2015) also recommends supporting deeper learning by focusing on mastery goals instead of performance goals, i.e., learning as much as possible instead of trying to demonstrate competence by outperforming others with a test score or grade. In order to follow these recommendations, advanced assessment practices that support deeper learning should be the focus of teachers' professional development. One way of supporting teachers' deeper learning is to encourage them to engage in professional learning communities.

**Acknowledge students' subjective experiences, personal goals and interests.** It is crucially important for educators and policymakers to recognize how essential individual learning experiences are for educational success. While curricula are – and should be – standardized, the learning experience is individual. Students exposed to the same learning materials and instruction still have diverse experiences and learning outcomes, based on their previous knowledge, skills, and interest. Enhancing the learning experience by connecting the content to personal areas of curiosity improves both deeper learning and school well-being, increasing the intentionality of learning both inside and outside of the classroom. Increasing subjectivity in the classroom can be done by recognizing students' capacity and competence in self-directed and self-regulated learning. At best this leads to socially shared self-regulation and collaborative meaning-making experiences in the classroom (Järvelä et al., 2010; Järvelä & Järvenoja, 2011; Hadwin & Oshige, 2011; Kumpulainen et al., 2011, 2014). Self-monitoring and self-regulation are important parts of agency and learning process (Bandura, 2006; Mercer, 2012), and they require a good amount of trust among students and between students and teachers. Self-reflection is a skill that can – and should – be learned in the classroom environment as a part of assessment and evaluation. With self-reflection students can better situate their learning experiences and focus their self-regulation to support their individual learning process in the classroom context. This change to support subjective learning with assessments and classroom practices cannot happen overnight, but the awareness of learner-centered practices must be increased among teachers (Baker & Gordon, 2014). There must be choices increasingly embedded into classroom learning experiences, including assignments and assessments. Standardized evaluations informing policymakers of school effectiveness cannot replace classroom assessment and feedback that supports students' learning process (Darling-Hammond, 2010). The societal norms, values, and standards change slowly. However, education must reflect the research and knowledge of 21<sup>st</sup> Century learning.

**Crediting informal learning.** Another major need for educational policy is to find ways to credit invisible, non-formal, and informal learning described in the category of *ubiquitous unbound learning*. Students who engage in deeper learning do so everywhere. Formal education cannot dominate learning in 21<sup>st</sup> Century where information is freely available, and the cultural structure has changed towards globalization and open access (Giddens, 1979, 1984). Therefore, finding ways to embed the gains from personal learning endeavors into students' schoolwork would increase the perceived meaningfulness of classroom learning. It is crucial for students to have more opportunities to build agency within any given curriculum (Rajala et al., 2013). On the curriculum and instructional design level, this means acknowledging the competencies that students have gained on their own and adjusting the expected learning outcomes accordingly, and providing opportunities for students to learn more when they have met the expectations. As teaching and learning must both work toward increased belonging and intentionality, it is important to focus on teacher-student interactions

that engage students in their own learning process, promote understanding, and sustain rapport (Anderman et al., 2011). This recommendation is equally true for teacher training and professional development. Encouraging and crediting the *ubiquitous unbound learning* teachers do on their free time supports their professional growth.

**Strengthen the *synergy of learning ownership*.** In order to create meaning and knowledge through interactions in the classrooms, teachers should discuss learning as a process, not a product. Contemporary education must focus on learning as an individual life-long endeavor instead of an educational product that ends in graduation. The *synergy of learning ownership* relates directly to the interplay of agency and structure of signification (Giddens, 1984, 1991), which students in this research conceptualized as taking responsibility for one's own learning and defining what learning means on a personal level. This is a transformative experience that fosters continuous learning through life, and requires a structural change that supports learner agency in the classroom. Furthermore, while meeting the performance goals or learning outcomes of the educational system – the structure defining learning as a tangible product – it is equally important for students to gain increased ownership over their learning process during K-12 education. The leading authority in educational psychology, APA, recognizes the importance of emphasizing the learning process: “Creative thinking can be developed and nurtured in students, making it an important outcome of the learning process for students and educators” (2015, p. 19). Engagement strategies are personalized when education focuses on supporting students' learning process instead of a tangible product as evidence of learning (Boekaerts, 2016). Therefore, it is important to study which classroom experiences support learning ownership and engagement and “include understanding the trajectories of participation” (Säljö, 2012, p. 12). Much more research with larger populations is needed to understand how students perceive their ownership of the learning process.

**Prevent detachment and negative agency.** The seemingly negative aspect of learner agency found in the *detachment from learning* category should be researched with a larger population. In the educational literature, while discussing agency, we usually highlight the self-directed and compliant students who exhibit interest in learning. Equally important is to recognize the agency among students who do not wish to comply with the scholar-academic tradition, but want to contribute to their life circumstances, and make choices about their lives and learning (Bandura, 2006; Giddens, 1984). The normative thinking in education may prevent teachers from seeing the benefits of collaboration and dialogue in the classroom. Gillespie (2012) reminds how one important part of agency is for students to “take each other's' social position and thus experience a similar perspective” (p. 41). Detachment occurs easily if students cannot find real-life connections for their schoolwork or if they cannot relate to the experiences of their peers. Agency is socially developed in classroom interactions (Kumpulainen & Lipponen, 2010). Extending future research to understand how to strengthen

signification and decrease restraints for learning is important. Also detached students' voice must be heard.

**Summary of the recommendations for practice and future research.** Six recommendations were made based on the results of this research. First two recommendations –**engage in learner-centered practices** and **support deeper learning** – have implications for teacher training and professional development. These recommendations are aligned with the contemporary research about educational psychology, including motivation and the learning process (APA, 2015). Furthermore, in order to increase learner agency, it is important to find more legitimate ways within educational structure to engage in deeper student-centered learning. The two recommendations for policy changes – **acknowledge students' subjective experiences, personal goals and interests** and **credit informal learning** – suggest decreasing the domination of learning within educational structure. Students' future success to thrive in the rapidly changing world depends on their *unbound* learning skills. Education should not overemphasize standardization and compliance, but empower students to learn more. This recommendation also applies to teachers' learning and professional development. The two recommendations for future research – **strengthen the synergy of learning ownership** and **prevent detachment and negative agency** – extend this inquiry to students' perceptions of their learning experiences into a larger context of contemporary research in education. The social structure of classroom learning and students' experience of agency are imbalanced when students choose to be a “classroom sheep”. Much more research is needed to make students' voices heard about their own learning experiences and engagement.

### **Conclusion of Research Findings and Recommendations**

The purpose of this research was to examine high school seniors' perceptions of their learning experiences in order to describe how students conceptualize their learner agency. The goal of the study was to expand on existing research about learner agency, and to uncover current structures and practices that support deeper learning and students' emerging agency. The ultimate goal was to understand how to provide more opportunities for students to engage in deeper learning. Phenomenographic research was conducted using the theoretical framework of learner agency as the lens to describe the conceptions that students have about their learning experiences and how they perceive their leaning engagement. The analysis yielded an outcome space of four qualitatively different ways of perceiving learner agency, and a visual conceptualization of the hierarchical and conceptual relationships between intentionality, agency, and quality of learning.

Results of this research indicate that deeper learning depends on students' perceptions of their learning experiences. Students discussed different approaches to engage in their schoolwork, the variation ranging from ignoring assignments to expanding learning in their free

time. The experienced intentionality of personal learning contributes to the way how learner agency is perceived and conceptualized. Learner agency is perceived in four different ways, each representing one of the four descriptive categories that contributed to the outcome space as a visual conceptualization of the hierarchical relationship between intentionality, agency, and quality of learning. The final categories are *detachment from learning, belonging to the school, synergy of learning ownership*, and *unbound ubiquitous learning*. These categories are hierarchically related to each other. *Detached* learning focuses on earning a grade by passing tests and often misses applications and real-life connections of learning. *Belonging* learning is situated in the intersection of compliance and mutual dependency, and relies on the social and collegial context of educational environment. *Synergy of learning ownership* stresses the choices students have and definitions they place to their learning experiences, and emphasizes life-long learning. *Unbound ubiquitous learning* is very self-directed and utilizes school learning and the active, independent and ongoing personal learning to fuel each other and the curiosity behind the drive to learn.

More training is needed for teachers to understand students' perceptions and intentionality in learning, and to support the deeper learning in order to grow learner agency throughout formal education. The voices of students still remain largely unheard. The findings of this research indicate that students who perceive strong learner agency are ubiquitous learners who are able to turn any interaction with information into a learning experience. Other students try to find ways to grow emerging agency, but depend on the interplay of agency and the traditional classroom chronotopes, including the structures of restraints and power relation. Providing all students with an opportunity to plan, self-and co-regulate, and self-reflectively assess their own learning would increase learner agency and support students' growth into independent, unbound learners.

### **Journey as a Scholar Practitioner**

Supporting deep learning is the core value of my scholarly practice. My students are teachers, trainers, and faculty members pursuing their masters' degrees in curriculum and instructional design. I work as a change agent to support their growth toward student-centered practices that help their students to engage in deeper life-long learning. In this effort, I have come to understand how important it is for me to know what is going on in the classrooms, and how students today perceive their learning. Without that insight, it would be hard to relate to my students' instructional realities and the obstacles they are facing in their everyday work. While knowing that the results of qualitative research cannot be generalized, my study provides an excellent tool to understand students' underlying opinions. I often share my research results about how the participants perceived their learning experiences with the teachers I train. This may help educators to use student-centered practices in their classrooms, and to listen to their students' voices.

Furthermore, the results of this research are guiding my own curriculum and instructional design while I build asynchronous professional development courses for teachers. I will strive to ensure that teachers as adult learners get to engage in learner-centered practices, where their personal goals and learning process are acknowledged and their informal learning gets credited. This will require building curricula that is open-ended and has more choices. Also, providing opportunities to discuss individual learning experiences will be embedded to the instructional design, to prevent detachment and negative agency.

Researching high school senior's perceptions of their learner agency as a way to conceptualize how students engage in their learning experiences provides important information for teachers' instructional design process. Due to the situationality and contextuality of learning, acknowledging students' subjective experiences is a crucial first step in supporting learner agency. Hopefully the four categories established in this research can help teachers to bridge the gap between curricula and deep learning. However, finding ways to embed deep learning to all educational experiences requires going beyond a simple conceptualization of how learner agency is perceived. Therefore, I strive to provide my teachers the experience of empowerment through learner agency as well.

I greatly enjoyed gathering information for this research and building my own understanding about contemporary education in the Northwest United States. The research process was an eye-opening, deep and transformative learning experience, where I got to double-check my own assumptions about goals and practices of education, and rethink what it means to be a teacher in today's widely diverse societies. Through the academic rigors of my coursework and thesis, I have had many opportunities to grow as a scholar practitioner. It was challenging to learn more about agency, learner-centered practices, and the ways self-regulation and co-regulation contribute to students' learning. Diving deeper into the concepts of agency and student-centered learning has enhanced some of my beliefs about learning, and helped me to reformulate my own teaching dispositions. I like engaging in theoretical explorations, and have created several mind maps during the research project to better understand the hyper- and hyponymy that related to my quest to learn more about agency, which will continue beyond my doctoral research.

Already being a passionate life-long learner, I am constantly drawn to understand more about the theories behind learning and teaching, and want to apply the newly found knowledge to my everyday work as a mentor. Translating the theoretical knowledge to everyday practice has prompted me to blog about practical applications of learner agency. I have found new ways to engage in scholarly discussions with my coworkers, and am looking forward to writing an article about learner agency as the next step of my growth process.

In this doctoral research project, I wanted to focus on students' perceptions of their learner agency and describing the relational and subjective nature of learning experiences. Understanding how students perceive their educational experiences is an important part of



instructional design and planning for 21<sup>st</sup> Century learning. The finding of negative agency is very intriguing to me. My next research study might be conducted with a larger sample using a quantitative approach to find out if the outcome space created in this research could be generalized. My aspiration is to conduct an international research about learner agency. My own, personal, mission remains: enticing a teacher a day into following student-centered practices so that in the future there will be fewer students feeling they have to be “classroom sheep.”

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## Appendices

### Appendix H Interview Protocol

## Interview Protocol Form for Learner Agency

### Student Interview Protocol

Institution: \_\_\_\_\_

Interviewee: \_\_\_\_\_

Interviewer: \_\_\_\_\_

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

Location of Interview: \_\_\_\_\_

### Learner Agency Interviews

This research project focuses on the high school students' learning experiences with a particular interest in understanding how they describe the role of learner in contemporary K-12 system. All your responses will remain fully confidential, and none of your teachers will know what you have said here.

**Part I:** Introductory questions, building rapport, describing the study, answer any questions, review informed consent form.

#### Introductory Protocol

*Because your responses are important and I want to make sure to capture everything you say, I would like to audio tape our conversation today. Do I have your permission to record this interview? I will also be taking written notes during the interview. I can assure you that all responses will be confidential and only a pseudonym will be used when quoting from the transcripts, which will be typed by a professional transcriber. The tapes will be destroyed after they are transcribed, and I will be the only one to read the transcripts. This document your parents signed states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) I do not intend to inflict any harm. Do you have any questions about the interview process or this form?*

*We have planned this interview to last about 60 minutes. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning. Do you have any questions at this time?*

Introduction (10 minutes)

A. Interviewee Background

How long have you been a student in Port Angeles school district? Have you been a student in other school districts?

*In order to focus on learning instead of studying, schooling or instruction, please think about those learning experiences when you realized that you had gained new insight, skill or knowledge.*

How do you define learning? What do you like best in learning?

**Part II: Objectives (45-50 minutes):** Obtaining the participant's insights, in his/her own words, into the learning experiences that have facilitated or hindered creating a sense of having learner agency.

Tell me, please, about the best learning experience you have had. What made it good? How about the worst learning experience? Would you please tell me about that? What made it so bad?

(SQ1) Do you think these two different experiences have changed you as a student? How?

What do you do when you plan for studying (for example for an exam)? How do you know you have learned what you needed to learn?

(SQ2) How do you choose to engage in the classroom?

What kind of interactions do you have in the classroom? How do you engage in your own learning during a class?

(SQ4) What classroom activities do you like best? Can you tell me more about that?

What kind of choices about your learning, or learning activities, do you have during a typical school day? How do you think these choices affect your learning?

(SQ3) Do you think adults need to learn or relearn things? What makes you think so?

What do you think are the best ways for you to learn? Please tell about time when you used something you learned at school in your life out of school.

How about the other way around, using at school something you learned elsewhere, could you please tell me about those experiences?

Is there anything else you could tell me about your learning experiences and engagement in the classroom?

Thank you for your participation!

## Appendix I Learner-Centered Principles

APA Task force 1997. Table of 14 psychological principles

### The Learner-Centered Psychological Principles with explanations

<p><b>COGNITIVE AND METACOGNITIVE FACTORS</b></p> <p><b>Principle 1: Nature of the learning process.</b> The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience.</p> <p><b>Principle 2: Goals of the learning process.</b> The successful learner, over time and with support and instructional guidance, can create meaningful, coherent representations of knowledge.</p> <p><b>Principle 3: Construction of knowledge.</b> The successful learner can link new information with existing knowledge in meaningful ways.</p> <p><b>Principle 4: Strategic thinking</b> The successful learner can create and use a repertoire of thinking and reasoning strategies to achieve complex learning goals.</p> <p><b>Principle 5: Thinking about thinking</b> Higher order strategies for selecting and monitoring mental operations facilitate creative and critical thinking.</p> <p><b>Principle 6: Context of learning</b> Learning is influenced by environmental factors, including culture, technology, and instructional practices.</p>	<p>Intrinsic motivation is stimulated by tasks of optimal novelty and difficulty, relevant to personal interests, and providing for personal choice and control.</p> <p><b>Principle 9: Effects of motivation on effort</b> Acquisition of complex knowledge and skills requires extended learner effort and guided practice. Without learners' motivation to learn, the willingness to exert this effort is unlikely without coercion.</p> <p><b>DEVELOPMENTAL AND SOCIAL FACTORS</b></p> <p><b>Principle 10: Developmental influence on learning</b> As individuals develop, they encounter different opportunities and experience different constraints for learning. Learning is most effective when differential development within and across physical, intellectual, emotional, and social domains is taken into account.</p> <p><b>Principle 11: Social influences on learning</b> Learning is influenced by social interactions, interpersonal relations, and communication with others.</p>
<p><b>MOTIVATIONAL AND AFFECTIVE FACTORS</b></p> <p><b>Principle 7: Motivational and emotional influences on learning</b> What and how much is learned is influenced by the learner's motivation. Motivation to learn, in turn, is influenced by the individual's emotional states, beliefs, interests and goals, and habits of thinking.</p> <p><b>Principle 8: Intrinsic motivation to learn</b> The learner's creativity, higher order thinking, and natural curiosity all contribute to motivation to learn.</p>	<p><b>INDIVIDUAL DIFFERENCES FACTORS</b></p> <p><b>Principle 12: Individual differences in learning</b> Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity.</p> <p><b>Principle 13: Learning and diversity</b> Learning is most effective when differences in learners' linguistic, cultural, and social backgrounds are taken into account.</p> <p><b>Principle 14: Standards and assessment</b> Setting appropriately high and challenging standards and assessing the learner and learning progress-including diagnostic, process, and outcome assessment-are integral parts of the learning process.</p>



## Appendix J Top 20 Principles

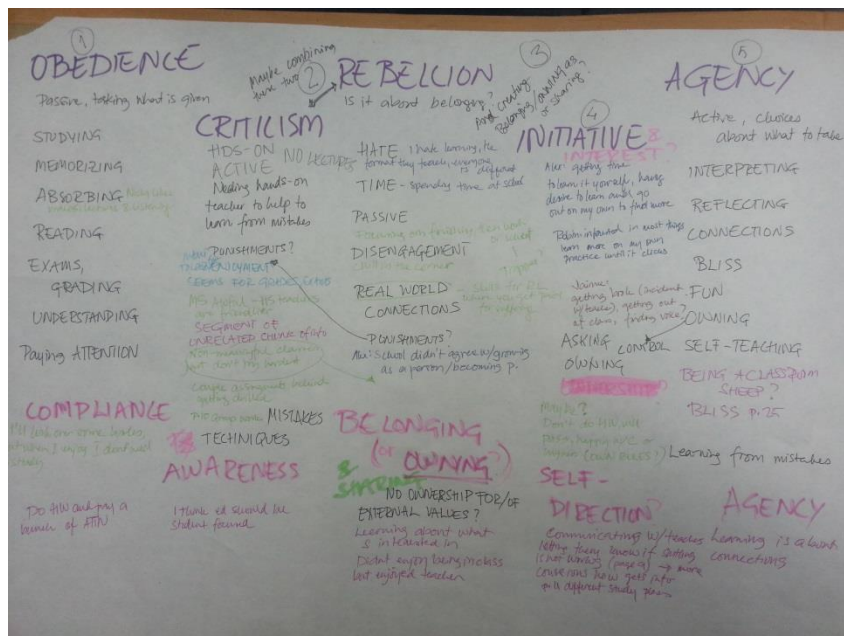
American Psychological Association, Coalition for Psychology in Schools and Education. (2015).  
Top 20 principles from psychology for pre K–12 teaching and learning.

## Top 20 Principles for Learning

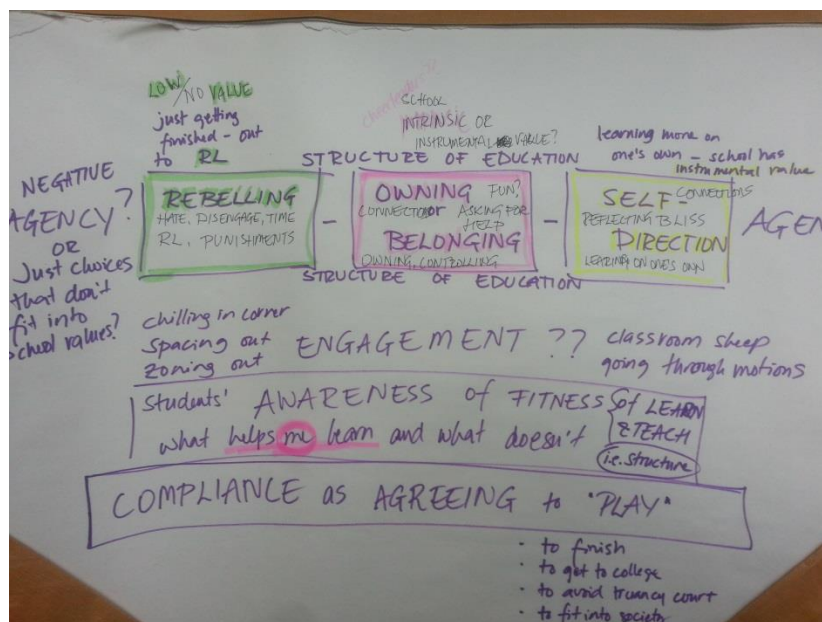
<p><b>1. Growth mindset</b> Students' beliefs or perceptions about intelligence and ability affect their cognitive functioning and learning.</p>	<p><b>11. Teacher expectations</b> Teachers' expectations about their students affect students' opportunities to learn, their motivation and their learning outcomes.</p>
<p><b>2. Prior knowledge</b> What students already know affects their learning.</p>	<p><b>12. Goal setting</b> Short term, specific and moderately challenging goals enhance motivation more than goals that are long term, general and overly challenging.</p>
<p><b>3. Limits of stage theories</b> Students' cognitive development and learning are not limited by general stages of development.</p>	<p><b>13. Social contexts</b> Learning is situated within multiple social contexts.</p>
<p><b>4. Facilitating context</b> Learning is based on context, so generalizing learning to new contexts is not spontaneous, but rather needs to be facilitated.</p>	<p><b>14. Interpersonal relationships</b> Interpersonal relationships and communication are critical to both the teaching-learning process and the social development of students.</p>
<p><b>5. Practice</b> Acquiring long-term knowledge and skill is largely dependent on practice.</p>	<p><b>15. Well-being</b> Emotional well-being influences educational performance, learning, and development.</p>
<p><b>6. Feedback</b> Clear, explanatory and timely feedback to students is important for learning.</p>	<p><b>16. Classroom conduct</b> Expectations for classroom conduct and social interaction are learned and can be taught using proven principles of behavior and effective classroom instruction.</p>
<p><b>7. Self-regulation</b> Students' self-regulation assists in learning and self-regulatory skills can be taught.</p>	<p><b>17. Expectations and support</b> Effective classroom management is based on (a) setting and communicating high expectations, (b) consistently nurturing positive relationships, and (c) providing a high level of student support.</p>
<p><b>8. Creativity</b> Student creativity can be fostered.</p>	<p><b>18. Formative and summative assessment</b> Formative and summative assessments are both important and useful, but they require different approaches and interpretations.</p>
<p><b>9. Intrinsic motivation</b> Students tend to enjoy learning and to do better when they are more intrinsically rather than extrinsically motivated to achieve.</p>	<p><b>19. Assessment development</b> Student skill, knowledge, and ability are best measured with assessment processes grounded in psychological science with well-defined standards for quality and fairness.</p>
<p><b>10. Mastery goals</b> Students persist in the face of challenging tasks and process information more deeply when they adopt mastery goals rather than performance goals.</p>	<p><b>20. Assessment evaluation</b> Making sense of assessment data depends on clear, appropriate and fair interpretation.</p>

Appendix K Examples of Memoing

Notes for themes during condensation step



Notes for themes in preliminary grouping step





## Appendix L

An example of first level of analysis.

well the reason behind no would be that my parents, that my parents, they kind of check my grades? so, I study hard so that I wouldn't disappoint them

read this chapter, take a test, So, whatever answer is closest to the general idea is right... it made me despise reading books, like textbooks.

I've definitely watched people around me lose the desire to learn. And I've noticed it to some extent within myself. Just kind of like, demotivating me in small ways.

I think that currently, school is more about passing than it is about learning itself.

the grades are what I'm mainly concerned about and I -- I don't like that.

the instructions were very vague so I didn't really understand what I was doing .... sometimes I don't

knowledge is everything to me, you know, -- but I just think that shoving me in a school and making me sit there and absorb things; I can't just sit there for eight hours and absorb all the things you're saying

We just did like a lot of things like out of the book and like worksheets and stuff... we spent like year and a half not fully knowing what we were doing

Here, the teachers are a little more personal at our high school; they are friendly, they talk to you more, they're happy, jokey

if the teacher is really enthusiastic, it tends to almost have like a waking up kind of effect? Kind of a difficult thing to describe, but it doesn't so much like make me interested in the

normally, I -- I don't do homework. I'll do the essays and stuff like that. But like if it comes to a whole bunch of like, big work assignments? I'll tend to just not look at them. And I'll still do fine on some of the tests and stuff.

I have an idea of what learning should be... well, student-focused thing. that reflects what a person is interested in ... the joy of seeing how things connect

I should be happy because it's like an easy A, but I'm not because it's like I want to -- I want to keep moving. I want to keep learning more the main difference is that when I'm on my own for the most part, I just learned what I want to learn at any given time.

It's been -- changing. I've grown a lot from freshman year. And it's

learning seems to drain the desire to learn from participants? I have a tendency to do so. It seems to me that that's not healthy and that therefore neither is that method of teaching.

I would say I learn by just figuring it out my -- myself? If I can do it, and if I can picture it in my head and understand, like, how everything works with each other, then I really get the concept down.

learning, I think, should be a natural thing that follows what a person is interested in ... that is how I would like to learn, if given the choice.... I the feeling of having all this new information to grab out and play with and enjoy

I think that a free-form kind of learning is the kind of learning