

Academic Literacy Acquisition (ALA)

By

Laura E. Harris, A.A., B.A., M.A.

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This thesis has been accepted on behalf of the Department of English by their supervisory committee

A handwritten signature in cursive script, reading "Kim Flachmann", written above a solid horizontal line.

Dr. Kim Flachmann

A handwritten signature in cursive script, reading "Emerson Case", written above a solid horizontal line.

Dr. Emerson Case

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Dedication

This work is dedicated to the most important woman of my life and the most beautiful face I have ever seen. I will always cherish the precious memories of my mother,

Frankie Bernice Loudermilk Burleson.

She built in me a love for God, a love affair with reading and writing, and a vivid imagination. She convinced me that I was intelligent and could do whatever I set my mind to accomplish. She could find the beauty and good in people and in life even when it was full of heartbreak. Without her influence and unconditional love in my formative years, this work would not be possible and I would not have become the woman I am today.

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Introduction

Education in the 21st century is predicated on instructor understanding of the dynamics of literacy and modern students' requirements. The demographics of today's classroom are changing rapidly throughout the United States as is current pedagogical research of cognitive, linguistic, and neuroscience understanding about the learning process. The complexities of social and cultural communities carry important relevance for activating students' abilities to acquire and transfer information. Finally, our digital age necessitates the ability to deliver content in many forms that will engage students' minds so they can realize their full potential for living and working in this era.

One of the biggest problems facing incoming freshmen in American colleges today is lack of preparation in appropriate reading, writing, and critical thinking skills. These abilities are necessary for success not only in college but also in the professional world. The issues surrounding this problem are complicated and may appear to be unrelated; however, the connection between learning and instruction provides the solution. If instructors possess the concern and tenacity to understand and address how this connection relates to improving student learning, success rates of both the students and the academy can be improved. Learning must be understood in regards to diversity of style, cultural and social background, steps of knowledge building, the role of neuroscience, and the implications of the digital age on education.

Review of the Literature

Susan Naomi Bernstein posits that literacy is an intersection of knowledge, skills, and thinking capability. The many kinds of literacy in the world demonstrate diverse capabilities and knowledge in the human race. Discussions of what literacy is and how to attain it is a continuing conversation. Advancement of society, information, and technology continue to revolutionize the boundaries of dynamic literacy. Paolo Freire believes that literacy either brings about conformity or is transformative. I believe that literacy is transformative. This thesis will discuss themes of literacy including culture, tradition, reading and writing, cognition, linguistics, neuroplasticity, the 21st century, and finally, the teacher and student.

Culture and background knowledge are connected to every theme in this work. Research in the field of culture and education is presented primarily by Shannon Carter, E.D. Hirsch Jr., and Louise R. Giddings. Carter uses culture as a scaffold for students to activate their awareness of the acquisition of literacy. She believes students need to gain an understanding of the definitions literacy in order to know how they can become literate in many ways. She builds prior knowledge by having students connect their own culture practices to other practices they are unfamiliar with. Hirsch focuses on the cultural literacy perspective of identity, tradition, and linguistics. He describes an argument among educators for a pluralistic pedagogy of literary themes based upon cultural locations across the United States and puts forth the concept of a national canon. Hirsch's ideas about language skills draw excellent parallels to background knowledge but his solution has proven to be too broad an answer. Giddings takes culture beyond Hirsch's remedy and calls for standards that would build cultural awareness for students that would enable them to function in the

American collegiate system. The question for Giddings' methods is how would these standards be proposed and implemented across the country?

Another theme is definitions of literacy beginning with the simplest, which is reading and writing. However, other definitions broaden the discussion about literacy considerably. Important scholarship regarding the abilities of reading, thinking, and writing provide a larger scope to the meaning of literacy. Laura R. Micciche makes an important connection through language to reading and writing. She believes that grammar as a fundamental component of language must be understood as an interactive part of a text in order for students to comprehend content. Grammar doesn't always appear to be highly valued as a necessary component of college composition instruction; however, it can be implicitly taught as part of content to increase students' comprehension. Word usage and meaning must be understood in order for students to construct comprehensible texts. Deborah M. Sanchez and Eric J. Paulson assert that students need to be taught to recognize what language does and to become aware of how discourse methods work. Identifying word usage and speaker's intent empowers students to build their understanding of higher levels of thinking. Then they will be able to make value judgments. James A. Herrick establishes the importance of what language does by demonstrating how the response between the speaker and writer connects to the larger relationships in society. Reading and writing are the fundamental building blocks of literacy, but critical thinking is a bridge between them and must be activated and taught for students to become literate.

Additional contributors to the theme of reading, writing, and critical thinking begin with Beatrice S. Mikulecky, who advises that building reading power to include speed, fluency, and comprehension is the means for developing critical thinking. Although her

work is written for English language learners, she provides important strategies and techniques that help all educators understand reading skills as a gateway to learning. Nancy Cloud, Fred Genesee, and Else Hamayan also present research on literacy instruction for English language learners, adding important information about supporting the emergence and development of English literacy skills. They add the connections and experiences which students must develop that supports the foundation of this work on academic literacy. Scholarship from both areas of university instruction, composition programs and English language programs, is necessary to consider for developing best practices in competent reading, thinking, and writing instruction. The demographics of American college students contain native English speakers, non-native English speakers, and a blend of English speakers who may not have learned English until they arrived in the United States as children, and do not speak English in their home environment. Today's students require composition instructors to enlarge their knowledge of the literacy culture of many learner backgrounds and to utilize proven and latest practices of teaching reading and writing.

Cognition, linguistics, and neuroplasticity are relevant themes of literacy. A wide variety of researchers ranging from composition scholars to linguists and neuroscientists are pertinent to this thesis. Thinking, language, and neurogenesis all take place in the human brain. Neuroscience is contributing dynamic research that informs educators' understanding of learning and knowledge of how to empower student literacy development in innovative ways that are connected to many practices already in our classrooms. Cognition and linguistics are inextricably linked yet completely different from one person to another depending on one's cultural background. Giddings believes that students must make cognitive connections by learning about cultures and she uses *Bloom's Taxonomy* as a

method for building these bridges. B.S. Bloom et al. devised a well-known and trusted scaffold from lower order thinking levels to higher levels in order to teach students how to increase their cognitive abilities one step-at-a-time. Cheryl Hogue-Smith is also very concerned about developing metacognition in her students as a way to increase cognitive ability. Her work extends *Bloom's Taxonomy* to building intensive student attention upon the process of thinking. Students must form connections in order to learn, and Smith's focus on students who arrive at college underprepared asserts that cognitive development can provide a solution to their situation. Cloud, Genesee, and Hamayan corroborate Smith's findings in their research on the relationship between reading, writing, and critical thinking. Neuroscience concurs that increasing thinking ability develops literacy. The process of neuroplasticity explains how literacy transforms the brain.

Developing enhanced cognition is possible through reading, thinking, and writing because it engenders neuronal growth in the brain. Jeffrey D. Wilhelm introduces neuroplasticity by describing the transformation that takes place in one's mind. Multiple scholarship from journals of education, science, neurobiology, and psychology is used to establish that neuroscience helps explain the process of acquiring literacy. This biological perspective describes the individual connection to learning at the cellular level. Memories can be stored in various places such as auditory, olfactory, and visual nerves beside the frontal lobes where a lot of our thinking takes place.

Judy Willis describes the "wide sturdy bridge" that neuroscience can be for the classroom by providing educators with background knowledge behind learning strategies. Cognitive scientists have conducted studies showing that cognitive and linguistic skill training has improved reading and writing skills in college students. Research on humans

has been able to describe learning cycles and active learning states which instructors can use to assess engagement in their classrooms. Finally, research in laboratory animals has demonstrated a connection to life-long learning capability as well as favorable learning environments. Older rats that were kept on a healthy diet with exercise and social stimulation were able to continue learning to an age equivalent to a very old human. Scientists assert that neuroplasticity can continue to take place in a human brain as old as ninety years.

Additionally, it has been discovered that the largest amount of neural growth takes place in vitro. Continual neurogenesis in the mind is ongoing throughout one's lifecycle. More startling is the fact that measures can be taken by both student and instructor to ensure maximum learning not only in the classroom but in every aspect of life. These studies have produced convincing evidence that understanding neuroplasticity is a key to educating today's students. The 21st century instructor has the capability to bring student learning into the digital age. Teachers today must understand the impact of technology and use it as an innovative advantage.

Instructors in 2015 are using multiple forms of media to connect content to students' worlds and should understand that sustained attention is not necessarily a student learning problem. The issue is activation. Students can still be engaged, and learning can be taking place. Marc Prensky posits that the classroom of today must satisfy students' thirst for interactivity. The digital age is actually reorganizing society's brains because they are plastic and will adapt to their environment. Educators in the 21st century should also adapt their teaching methods to contemporary classrooms.

Joy Egbert describes how technology should be used to support learning content, communication, critical thinking, creativity, solving problems, and production. Especially

important is her position on authentic tasks. Herrick addresses the digital age and describes it as revolutionary. He draws important references to social media as well as older theories of attention, which connect directly to student interaction and how attention supports learning. The old ways of teaching must accommodate the difference between sustained attention and the new student who craves interactivity. Issues with digital learning that need to be addressed, such as socio-economic limitations or students' knowledge and possession of digital devices can be remediated through educators' understanding of how to serve the students' of the 21st century. Instructors should be willing to develop professionally to serve as a link between student and university. This also entails a personal commitment to students' success as our future leaders.

The teacher and student relationship is an important dynamic that requires active participation from both parties. The classroom is not one-sided where the student comes to receive what the instructor delivers as content to meet standards. A teacher and student dynamic should be interactive and purposeful. Bernstein and Smith describe the responsibilities of each side of the classroom, explaining the importance of participation and the ramifications of success or failure. Mike Rose finds this relationship vital to learning. His journey took place as a student from the poor side of town and rose to understand and teach struggling students who were faced with socio-economic challenges. As an instructor, he finds problems with "medicinal teaching methods" known as corrective teaching.

Rose's works and other basic writer instructors' scholarship bring together research on cultural and linguistic implications for teaching reading, writing, and critical thinking in composition classrooms of the 21st century. The digital age must connect learning to technology. Along with the overload of information, technology continues to advance at an

astonishing rate. The latest research in the field of neuroscience must be understood and applied to instructional methods in the classroom so teachers can help improve student success rates. The teacher/student relationship is vital for engagement and learning to be activated. How can the instructor of today ameliorate what appears to be an overwhelming task of combining issues of culture, linguistics, cognition, reading, writing, thinking, neuroscience, the 21st century, and teacher/student responsibilities as well as provide a classroom where all can become literate? The answer may well be found in describing the details of this complex process as academic literacy acquisition (ALA).

Overview

Academic literacy is described as the capacity and ability to critically read, think, and write about multiple texts across the curriculum of disciplines. Literacy development requires building fluency, speed, and accuracy in reading and writing in order to understand complicated or abstract ideas and communicate them in written form. A writer may not write above her or his reading ability; therefore, reading skills must be developed for comprehension, interaction, and written expression. The linguistic processes established during reading development build vocabulary and enlarge background knowledge, which is a foundational component for increasing literacy. Understanding what academic literacy is and what is needed to develop academic literacy is a way to start building prior knowledge.

Literacy is based upon tacit knowledge and linguistic ability; therefore, there must be many kinds of literacy. Everyone has experiential knowledge as well as linguistic ability for all communicate no matter what their age. There must be multiple literacies present in people in order for them to function and make sense of their world. These literacies are beyond the scope of academic literacy but must be part of the process of acquiring

knowledge, skills, and abilities for functioning in the world of academic language. Everyone has multiple literacies that are made up of the experiences of his or her life. Multiple literacies are individual, as well as cognitive, cultural, and social. What are these multiple literacies? How can students utilize and develop their own literacies in order to join the academic literacy community of practice?

Multiple literacies are made up of knowledge and skills people acquire through learning and practice. For example, a student majoring in science will have a different literacy than a student who is an arts major. However, if they both completed the same general education pattern, taking the same courses together, they will share the literacies developed in taking the same or similar math, writing, or ethnicity requirements. A person can be a great cook or a good soccer player and will have literacy particular to those fields of practice. All of the daily activities that societies engage in make up the multiple literacies of our world. A horsewoman can describe the practices of horsemanship via oral communication, writing, and physical demonstration. She practices the literacy of horsemanship through instruction, reading, writing, speaking, and listening; horsemanship is her “community of practice.” A soccer player knows the vocabulary of soccer: cleat, shin guards, goalie, defender, forward, half-time, quarter, and many other terms relevant to the community of soccer league. The world of food and beverage carries with it a language and practice that is understood and used by participants in the field. Gamers participate in the literacy of video games by memorizing complex moves, codes, rules, and play protocol. Individuals of all ages can use their existing communities of practice in which they are literate to develop their performance in the academic community of practice.

Academic literacy is achieved through acquisition of fluent reading, thinking, and writing ability, and is constructed upon one's background knowledge. Academic literacy becomes a practiced conflation of identity, social, cultural, political, and rhetorical means through which an individual can interact with the values and ideologies of communities and institutions. This interaction can be described as critical participation in one's world. This thesis explores and labels the process of Academic Literacy Acquisition (ALA); the purpose of this study is two-fold: one is to bring together important contingencies relevant to our world of academic literacy and the second is to suggest considerations for enlarging an access that all students seeking a broad and fair education can obtain.

Definitions of Literacy

The etymology of the word "literacy" derives from 1450 A.D. Latin to Middle English and it began as "letter-ate." It means the ability to communicate through reading and writing, which was not a common skill in the fifteenth century. According to *Webster's Dictionary*, literacy is defined as "able to read and write; knowledge of literature; well-read; characterized by skill; having knowledge in a specified field; having an education; a learned person." This definition explains that literacy is more than only the ability to read and write; it also includes possessing knowledge in a certain field, being schooled in some type of educative process, and having abilities that require skill. Communities of practice are a part of the definition of literacy because they entail having skill or knowledge in a particular field; communities of practice are learned through social, cultural, political, occupational, or historical groups that are distinct from others. Each group or community shares common characteristics and interests. Academic literacy is such a community.

Bernstein describes another aspect of literacy in her anthology of essays on *Teaching Basic Writing* as “technology, cognitive consequence, cultural relationships, and the highest human impulse to think and rethink the experience in place. Literacy is the intersection of skills and knowledge; it’s bigger than the sum of its parts. Literacy is the processes of writing and research, reading and writing, critical thinking, and digital technologies now called ‘new literacies’” (83). This overview of literacy provides a broader scope for exploration and discovery. How can all students, regardless of their diversity, engage in this “highest human impulse to think and rethink the experience in place?” Is equality and ability a possibility for all students who desire acquisition of a comprehensive education? Does background knowledge provide an answer?

Background Knowledge

Learning styles are as diverse as individuals. An ample and inclusive education is one in which instruction is fair for all and content contains depth and breadth. Students arrive in the academic world possessing vast experiences, knowledge, and skills that are culturally and socially shaped. A student can become a member of the community of reading, thinking, and writing through activation of his or her own encounters. Classroom engagement of this experience connects to students’ prior knowledge and develops academic knowledge that is built upon a foundation of the experiences and skills that each person brings in to the classroom. Instructors who recognize and understand the uniqueness of every student can teach content through helping learners draw upon their own background knowledge connections and provide access to knowledge that is both extensive and broad. The classroom becomes a collaborative place of learning whereby students and instructors exchange information, and grow from their collective contributions, providing all participants

with an individually richer knowledge database. This collaboration and exchange builds community and critical thinking skills.

A fundamental element of academic literacy is critical thinking, which must be practiced through intensive reading and writing. Students need to develop their ability to interact with texts in a lucid and comprehensive manner in order to analyze and synthesize information. They need to be able to join an academic written conversation through composition, making their own contribution to the subject. The greatest hindrance to active participation in content is the lack of prior knowledge. Other kinds of literacies students already possess are the keys to providing useful tools in building their background knowledge and developing individual higher order thinking skills. Students' existing communities of practice are the literacies already present in their thinking which provide the key for activating prior knowledge.

Carter, author of the article "The Way Literacy Lives," in Bernstein's *Teaching Developmental Writing: Background Readings* 4th edition, introduces the concept of communities of practice to explain how students' own background knowledge can be utilized as a bridge to academic literacy. She asserts that multiple literacies are encompassed in the term "rhetorical dexterity." Carter believes this notion will enable students to understand how a newcomer can enter the academic community of practice. For example, if a male student is a good basketball player, he is a member of the community of practice for the sport of basketball. He will have prior knowledge of vocabulary, phrases, and concepts of plays for gaining points. The process the student underwent to gain that knowledge can be utilized as a methodology for becoming a member of the community of the practice of academic literacy. Carter posits that "they need to experience literacy differently—to look again at the

ways in which literacy functions in the multiple and intellectually viable life-worlds in which they are already full-fledged members” (163). Her claims are important because building background knowledge is absolutely necessary for increasing higher order thinking skills and developing critical analysis in reading and writing. Carter demonstrates her theories through her student essays in which they explore their own familiar literacies and associated vocabulary to erect scaffolds for learning new literacies. Literacy practice can be modeled in the classroom by the students themselves. A great example she uses is through injection molding. One basic writing student in her program said, “When I started ‘Literacies at Work’ [an assignment in which students describe the literacy of their workplace], I was so excited. After brainstorming for a while, I decided the most interesting job to write about would be injection molding . . .” (171). This student worked for a company that used a process called “injection molding” in their manufacturing plant; only three companies in the world had been able to enact production using this method. His knowledge was unique and specific. The student was able to connect composition to the specific background knowledge that he possessed. After he wrote his essay he said, “I had pretty much figured out that English writing class was not the only literate community on the planet” (172). Her students were able to build a bridge by writing essays about their own unique knowledge and skills. They were able to use their own prior knowledge and draw connections to the culture and practice of academic literacy. In my own composition classes, I have been able to replicate Carter’s methods by having my students write their experiences in their journals in connection to the course content we are studying. We begin with whole class discussions of concepts and then make it personal by taking a ten-minute journal free-write period. Then we brainstorm, read, and discuss conceptual framework. The students are more engaged,

more enlightened, and happier to learn than if they arrived in class to hear a lecture.

Activating their background knowledge unlocks their thinking processes and enables them to have an open connection to new knowledge that is pertinent and relevant to their lives.

Instruction and delivering of content has to be more than just achieving pedagogical objectives and student learning outcomes; successful teaching must attract and hold students' attention. This can be accomplished through compelling instruction that connects to student's knowledge.

Carter describes this connection as showing students how to develop their own scaffolds from what they already know. She cites Brandt who argues that the emphasis should not be on literacy standards “but rather to develop a *flexibility* and *awareness*” (163). She explains this throughout her book, *The Way Literacy Lives: Rhetorical Dexterity and Basic Writing Instruction*. People are literate in different communities of practice in their lives; these are different contexts that can be used to fasten onto other communities of practice in which one may have less knowledge of. Learners need a place to link up their existing knowledge to become familiar with less known or unknown information. Teaching students to be aware of what they already know when encountering new concepts and ideas will encourage them to make connections which leads to higher order thinking skills and being able to make meaning and value judgments. This is an important key for students in acquiring literacy. Carter claims that “rhetorical dexterity encourages writers to use their own lives and interests—what they know and really care about—to make sense of what they don't yet understand” (163). Carter proves her premise by having her students write essays that compare and contrast communities of practice and requires their own efforts to articulate the strategies (methods) used by members of communities to demonstrate their “insider”

knowledge and participation skill. Students discover their own rhetorical dexterity in describing vocabularies, concepts, and accepted or prohibited practices among other terms in the communities they are contrasting. With my own students at California State University, Bakersfield, Carter's theories have been proven to work. The connection to background knowledge contains the access students need to create meaning. These students include basic writers in developmental English and international English learners at the university's Intensive English Language Center. Once the students become aware of their own experiences, belief systems, and social practices, their motivation for reading, thinking, and writing undergoes an important transformation, and so does their production in the classroom. Students' cultural awareness and identities begin to broaden as they actuate and build their background knowledge.

Culture and Identity

Students' flexibility and awareness will not only develop rhetorical dexterity, but will broaden their cultural perception of themselves and others. Students arrive in the classroom with varied and unique backgrounds. They will learn more about those different from themselves and discover the similarities they share with others. The potential for developing cultural connections and understanding is an important aspect of building background knowledge. Students bring experiences associated with their particular family, traditions, and politics, which will add variety and richness to class discussions regarding content as well as partner or group work. A collaborative environment will broaden students' knowledge of other cultures while providing the opportunity to share their own backgrounds. Today's American student represents not only a wide variety of cultural traditions from those born here, but also a melting-pot of learners that are Generation 1.5 and international as well. In

California, 42% of classroom demographics are represented by students who arrived here when they were infants and all the way through high school. They are described as “Generation 1.5” because their parents are immigrants and they are being brought up “bi-cultural”—holding cultural traditions of their parents’ home countries and the United States as well. The international student population is also a growing body of learners. In the 2013/2014 academic year there were approximately 888,052 international students studying in American universities from dozens of countries (Institute of International Education). This number is an increase of 8.1% over the previous school year and is projected to continue to grow. The demographics of American colleges today reflects the increasing fluidity of our global populations. Our students are a varied and unique population, which requires educators’ understanding and action to provide them with quality instruction that addresses a myriad of learner needs. Collaborative discussions on how to achieve this overwhelming goal and the astounding responsibility can seem unobtainable. However, activating the prior knowledge of students is a means of access for all unique backgrounds and educational goals. Teaching on both sides of a university campus (ELLs-English language learners and UCP-university composition program) has shown that this theory works. Students attending locally and around the state, first generation college attendees, specialized migrant farm worker programs, all socioeconomic ranges, and internationally are demonstrating that their diverse background knowledge is a key to precipitating learning. No matter what culture, tradition, and politics they bring into the classroom, their experiences will provide them access to learning that will become bigger than the sum of its parts as they become cultural members of the academic world.

Culture and Linguistics

Hirsch, the author of “Cultural Literacy,” describes cultural literacy as an individual’s ability to comprehend and cooperate within a culture, which can be a vocation, an ethnicity, a belief system, a national identity, or an activity (163-164). The literacy aspects of culture include linguistics, traditions, symbols, and expressions of identity. Hirsch traces the decline in literacy to the expanding of cultural diversity in the U.S. through immigration and the establishment of cultural strongholds of salient identities. The Literacy Canon diversified to accommodate students representing an ever-enlarging variety of national identity, ethnicity, religion, and socioeconomic status. He credits what he describes as educators’ “doctrine of pluralism,” which is diluted knowledge and the opposing adaptive “symbol of the melting pot” wherein hasty canons are assembled to accommodate the local collections of culture. His argument is that “literacy implies specific contents as well as formal skills” (162).

While Hirsch does bring up an accurate notion that literacy is political in his descriptions of the polemic issues in education, his call for a national canon of literature that all of the country’s students would study from coast to coast is not be realistic. Education policies vary a great deal from state to state; additionally, the opposition to Hirsch’s views created a largely critical response, and his ideas became unfavorable. However, he does examine psycholinguistic principles in a study he conducted of two groups of 100 writers with both good and bad levels of writing who were writing about wedding traditions. Hirsch found that reading and writing skills were connected to linguistic structure as well as vocabulary because words are indicative of domains of content; therefore, language skills can be equated with content knowledge. He believed that when students were writing about unfamiliar topics, they exhibited a marked decline in writing skill. Understanding that with

little or no prior knowledge, a writer will struggle to draw connections or make meaning, Hirsch does contribute important information about assumed knowledge. He asserts that “tacit knowledge of the experiential realities embraced by the discourse [is a significant part of assumed knowledge]” (165). The greatest consequence of Hirsch’s article is that cultural literacy is a key idea in academic literacy acquisition (ALA). But cultural literacy in the concept of ALA has to be much more specific than a national canon of literature which Hirsch believes to be a remedy. Cultural literacy in the academic community of practice can be implemented across the country through educators who are willing to recognize that students need to learn how to make connections to academic and personal habits through reading, thinking, and writing.

Working with my own students, we discovered that if we began a lesson with a discussion, we were able to make connections from our own lives to the content of the lesson. We wrote lists on boards, noted our similarities and differences, and talked about our discoveries. Sometimes our discussions would begin without any reference to content but would be about a common personal experience such as the first time riding a bicycle without training wheels. Being a storyteller comes in very handy as a teacher and entertaining my students with my own escapades captures and holds their attention. Their laughing and chattering provides the perfect opportunity to “mine” them for their own experiences and our three whiteboard classroom fills up quickly with notations of students’ thrills, spills, and chills. With persistently activated minds, the time is perfect for them to get out their journals and complete an assigned writing for which they have already brainstormed lots of sharp details they can now commit to paper. Their eyes pause and wander around the classroom grabbing words off the whiteboards to use in what they’re writing. They are able to use their

own experiences and tacit knowledge to express connections to a course concept that otherwise would have been a struggle to produce. Students come alive when their background knowledge is activated and they have a familiar path of their own thoughts to use as a bridge of new ideas put forward in our coursework. Students need to be able to use their own linguistic background to make meaning out of new knowledge. Learners need to be taught these skills through intensive and patient practice if they are to become proficient members of the academic community. Their own cultural knowledge provides a beginning from which they can develop a much larger knowledge-base of cultures including academic culture.

Cultural Knowledge

A culturally literate member can operate mellifluously within her culture and this demonstrates relevance to Carter's communities of practice. She explains that "each community of practice is made up of, among other things, behaviors shaped by ideologies particular to that community that may seem odd to outsiders but to members of the community are merely common sense" (Carter in Bernstein 167). In the article, "Beyond E.D. Hirsch and Cultural Literacy: Thinking Skills for Cultural Awareness," Giddings acknowledges that while cultural literacy can be of benefit, she is confident that students need to develop a *knowledge* of culture. She believes that "the information embedded in cultural knowledge can provide substantive background and content for speaking, reading, writing, and thinking" (112). This background and content are identified as cultural awareness. While Giddings questions Hirsch's ideas on a national canon that would promote national pride, she also suggests his concepts may be too easily turned into educational elitism, power, and control. Giddings calls for a larger view of cultural literacy positing that students must have access to a "standard cultural knowledge which allows them to function

in society” no matter what their background. She also points out that tests which allow entrance into American schools and vocations will “require mastery of traditional and standard cultural knowledge” (112). This validates the position that background knowledge must be developed in order for a student to be able to attain academic literacy acquisition (ALA).

This is why cultural knowledge of American customs, traditions, and especially the educational system of practices is needed for students attending college in the U.S. Giddings asserts that this cultural knowledge can only benefit the learner. Teaching critical thinking, reading, and writing in composition coursework that builds upon knowledge students bring into a collaborative classroom will initiate academic culture membership that uses their existing literacies for developing academic literacy. It will add another cultural practice to their experience. When I explain American customs and education cultural practices to my international students, they readily accept differences and draw comparisons and contrasts to traditions and education in their own countries. My students in the UCP (university composition program) are enlightened when we have discussions about the different cultures each of them represents and the methods and practices of the academy on our campus. All students are able to participate more fully when they are able to comprehend what they can each uniquely bring into the classroom from their backgrounds, what their education can do for them, how it operates as a system, and what is expected of them as participants.

The beginning of each term when classes are first meeting is a perfect time to acquaint new and returning students with the institution they have joined. I make sure students know what services are available to them, what kinds of benefits they can expect to realize, and most importantly, I encourage them to understand the status they have achieved

by choosing to attend college. Students need to be encouraged and edified for their decision to challenge themselves to learn. When students feel proud and worthwhile, they will develop internal goals to exert themselves in their education, which becomes another component of their cultural identity. These examples demonstrate Giddings' position that teaching students about culture along with building upon their own cultural experiences will provide them with tools for speaking, listening, reading, writing, and thinking. My students blossom with ideas, contributions, and opinions as they understand our classroom practices including ways of considering concepts and texts through reading, thinking, writing, and discussion as a classroom, in group work, and as partners. Especially important is for them to understand that their attentive and interactive presence in our classroom is needed for each student's knowledge development. Our classrooms contain multiple whiteboards, which are consistently filled up with perceptions, ideas, and opinions during our question and answer periods as well as discussions of textual concepts. I repeatedly encourage students to transpose all of our whiteboard content into their journals for future use when needing to recall information, brainstorming, and writing papers. By framing this activity as a consistent way for each of us to contribute and receive new ideas through lively discussions and journal writing, the students are able to act on the perceived benefit of collaboration and their journals become a record of virtually every class meeting, not to mention participating in writing practice as well. We are building a knowledge base together. Their learning ability increases as they become comfortable with our learning environment and their own selves as vital and necessary members of our classroom.

The academic community of practice we developed in our classroom becomes a gratuitous in-group, which in turn activates intrinsic motivation for the students' individual

benefit. They are open to receiving new background knowledge and adding to others what their perception and understanding is regarding our reading, thinking, and writing about course concepts and texts. Our classroom takes on a cultural identity, which understands terms, forms, issues, and controversies which are expressed in different modalities of language, diction, and phraseology. My students are learning to critically think in a way that most of them had not previously practiced. They are learning how to use language in a completely different way.

Mikulecky provides another definition of literacy in her book, *Reading Power*. She writes that “Literacy, broadly defined, is a set of attitudes about written language that develops within a specific cultural context” (12). The *World English Dictionary* states that “literacy is the ability to read and write, the ability to use language proficiently” and defines literacy as “the quality or state of being literate, possession of education, and a person’s knowledge of a particular subject or field” (Dictionary.com). Related terms for literacy are learning and culture; these words indicate that literacy is a cognitive process. Learning and culture are acquired through socialization which is transferred via language. Many components of literacy compose a vast “litera-scape” that makes up students’ worlds in knowledge, skills, abilities, practices, politics, culture, and traditions. These multiple literacies consist of the prior knowledge, which predicates students’ approaches to academic literacy acquisition (ALA). Students learning to use and recognize language in different ways are building higher levels of thinking.

Cognition

Background knowledge is a key to the rhetorical dexterity, which Carter posits can aid student initiation into academic discourse. Educators in English Language Programs

(ELPs) as well as University Composition Programs (UCPs) understand the concept of building background knowledge because without it, learners cannot ascertain the information they're being taught in our schools. The students of today are no longer just native-born Americans; they are immigrants from all over the world, international students studying here for the benefit American education provides for them, and Generation 1.5 students who are children of immigrants ushering in a hybrid mix of their American and parents' home country cultural influences. This means the classroom is a mix of individuals whose thinking processes are uniquely different from one another due to their varieties of culture and linguistic development. Because of so many conflicts in American culture, Giddings asserts that critical literacy must be accessed in tandem with cultural literacy as well as academic literacy acquisition (ALA). Students must be able to learn how to engage in higher levels of thinking in order to understand ideas and respond with connected, meaningful reactions to texts and concepts. She describes critical literacy as "the ability to interpret and respond to ideas at the higher levels of cognition. Critical literacy allows an individual to raise such questions as perspective, fact, opinion, what the text does not say, and most importantly, how can it be of use?" (112). Many of my students arrive in the classroom without much knowledge of how to question texts or look at different perspectives. In order to address this problem, we have to return to the text repeatedly to look for clues that would provide readers with ways to understand whose voice is being heard and what opinion is being put forth. We look for tone words to perceive emotions or make notations in the text on what the reader agrees or disagrees with to help understand the writer's position. These are just a few modalities instructors can use to assist students' in becoming critically aware of content.

Levels of thinking can be taught on a scaffold beginning with simpler forms and progressing to the highest order of thought.

Giddings suggests another way for building American and academic cultural awareness is through the principles in *Taxonomy of Educational Objectives* by B.S. Bloom et al., which proposes categories of objectives that will convey students from lower to higher levels of intellectual activity. The *Taxonomy* was grouped into three categories and the first two were researched and published by Bloom--those of Cognitive and Affective--which are the types of thinking and affect an individual has in one's own life. The third-Psychomotor--has to do with motor skills which Bloom decided was not useful for publication but was later released by Simpson, Dave, and Harrow. Bloom's Taxonomy is a familiar term and used frequently among instructors and researchers alike.

Bloom classifies his taxonomy beginning with lower level thinking skills of recognition (memory) and scaffolds upwards through analysis to making evaluative decisions at the top tier (synthesis). The objectives of the *Taxonomy* are memory, comprehension, application, analysis, synthesis, and evaluation. Students engage with texts through recall, understanding, interpreting, identifying issues, dividing up parts, and making value judgments. Giddings describes this process as the reading and writing activity of building background knowledge, which simultaneously develops awareness of other types of culture (113-116). Bloom's taxonomy bears a marked resemblance to Aristotle's rhetorical modes. Many composition teachers and textbooks utilize the ascending modes of description, narration, illustration, process analysis, division and classification, comparison and contrast, definition, cause and effect, and finally, argument. My students have continued to demonstrate the effectiveness of examining levels of thinking in the essay form of a

rhetorical mode and then constructing their own essay through modeling. The greatest roadblock to student production in the classroom is knowing what to write about and the easiest solution is to write about what one knows. By beginning with the lowest form of thinking which is memory in writing a descriptive or narrative essay, student work is not only easier to construct, but the engagement level is active and concrete for the student. Why not make learning easier and enjoyable? Certainly students will be able to remember and use this type of instruction over memorization and repetition.

An excellent tool that I have utilized as an instructor is to make notes in my own journal as I am reading narrative essays in the beginning of the school term about each student's experiences. I also write short response notes particular to their recollection on their papers to make a personal connection with each one of them. My journal notes are a handy reminder when I can bring in someone's personal experience to prove a point that I am trying to get across during discussions. Students enjoy being noticed and receiving attention and I choose carefully what to say in class or what to say privately. This approach builds community and adds to the development of the academic culture in our classroom, in students' education on our campus, and into their futures. Critical literacy not only works in text consideration but also in knowing who my students are, what their experiences are, and how their backgrounds have shaped them. Description essays are also good for this strategy if students are writing about themselves. As we move through the levels of thinking and rhetorical modes of expression, my students are not only building background knowledge about ways of thinking, they are also developing a broader awareness of texts. A greater benefit is that they are also finding out about how they think, what their opinions are, and

perhaps why they have these views. Their capacity for critical awareness applies to much more than what they're reading, thinking, and writing about.

Through class discussions, students can also find out about their peers since we're all experiencing the same content together, yet we are able to make unique and individual contributions that edify the whole as new ideas are expressed and considered. In this way, the students are creating their own learning and experience from the material unique to our coursework and at the same time are creating a space and time for our classroom as a society. Some of the memories will remain and become part of their identity and possibly used for future reference to think about a situation or to solve a problem.

Whether I'm teaching international students in our campus' IELC or composition in the UCP, the modes of rhetoric are an effective means my students use to scaffold their learning from basic memory recall through higher thinking processes. Bloom's *Taxonomy of Educational Objectives* and the rhetorical modes provide an instructional vehicle in which teachers and students alike can collaborate and build critical thinking skills through a well-ordered system that develops one step at a time until students are able to make judgments and argue for their own stance on issues and texts they are encountering. Simultaneously, our classrooms are constructing a collective identity that is situated in the real time and place of our discussions, exchange of ideas, and experiences. We understand one another's culture while developing our academic cultural knowledge through the learning that is taking place. All of these cognitive processes are necessary for developing higher order thinking skills and the access points are through the reading which must take place in order to introduce information and build background knowledge.

Reading

Mikulecky asserts that “reading skills are the cognitive processes that a reader uses in making sense of a text” (39). Two operative modes readers rely on are known as bottom-up and top-down processing skills in order to comprehend a text. Both of these models of cognition are an interactive operation in which both processes are continually happening. In the top-down approach, the reader relies on her prior knowledge attempting to make meaning by disregarding unknown words. Depending on bottom-up processing means the reader uses decoding skills to focus on single words or phrases to construe significance. These two processes interact with each other. Where the reader lacks knowledge, either unknown information or unknown definitions precipitate reliance on other sources of knowledge no matter what level of higher order thought is taking place. Basic writers’ composition often demonstrates lack of engagement or enlightenment because they find it difficult to comprehend texts. In order to increase cognition, students must develop reading fluency through intensive reading practice and reading strategy building. Reading development is the solution to increasing cognitive interaction with texts and cultivating higher order thought patterns which results in writing improvement.

Reading is the primary resource that enables students to join an academic community of practice because it builds background knowledge. Reading is where literacy begins, forms, matures, and continues to develop to higher levels of comprehension and subsequently, engagement, thinking, and writing as well as listening and speaking in the classroom. Mikulecky writes in her introduction “effective reading is the basis for all of the components of an English language course: vocabulary development, writing, revising, spelling, grammar, and speaking” (3). Reading involves the linguistic process that relies upon the

reader's knowledge of words, their sounds and meaning, as well as how they're used.

Connecting to a reader's background knowledge must not only involve cultural information but also language knowledge. Linguistic knowledge and use is reliant upon one's background. American students in the 21st century are comprised of many cultural identities in its population of 319 million people spread over 3.8 million square miles. The scope of the job of teaching reading, critical thinking, and writing becomes even larger when instructors realize their responsibility is more complex than simply addressing native-born English speakers, Generation 1.5, and international student populations. The diverse linguistic knowledge in these students presents a vast scope of background knowledge to work from.

Mickulecky also asserts that "reading is a complex conscious and unconscious mental process in which the reader uses a variety of strategies to reconstruct the meaning that the author is assumed to have intended, based on data from the text and from the reader's prior knowledge" (5). For the reader, reading is a conflation of the perceived author's intention and existing background knowledge. However, some cultures read and write from different perspectives of responsibility and construct meaning from their own linguistic knowledge. American educators communicate ideas with the responsibility for the message upon the writer; however, some cultures write with the assumption that the reader is responsible for constructing the meaning of the text. For students who come from this kind of a writing background, the process of reading and writing instruction can be difficult to understand. American English instructors should be aware of these differences and make sure that students understand through discussion, explanations, and other media forms to help convey textual meaning (Hinds).

Having students use a journal throughout the term is an excellent resource to develop awareness of themselves as readers. I have my students mark off the last twenty pages in their journals and use ten pages for grammar and ten pages for vocabulary. They note grammar knowledge they acquire through experience with texts and in class or errors recorded on their papers. Writing down a rule provides a handy reference for future recall plus makes an imprint on their brain to build the database in their mind. Vocabulary words are defined from unknown words in our texts and also words I like to give them in class. I love to see them use words like “heretofore” or “cogent” that we’ve discussed in class. They are gaining knowledge they can use. Multiple strategies in reading builds interaction and knowledge.

Reading development can happen concurrently with content instruction. John C. Bean, Virginia A. Chappell, and Alice M. Gillam describe excellent strategies for building academic comprehension in their book *Reading Rhetorically* and they demonstrate that “rhetorical reading is a powerful academic skill that helps you recognize the persuasive strategies built into a text” (14). The principles of reading to write which include predicting, pre-reading, listening, and questioning texts in order to absorb and process textual information to the end of becoming conversant are imperative for building students’ prior knowledge. The added benefit is that language awareness, grammar, and vocabulary knowledge is a vital part of this process. Cultural literacy is inherently built during the work of comprehending a text. The rhetorical dexterity Carter describes happens during students’ reading encounters that are experienced in a variety of ways through activities beginning with pre-reading and progressing to the point of beginning the writing process. Repeatedly connecting students own experiences to the text through similarities, differences, opinions,

and thought-provoking questions is how their independent background knowledge can be used as a bridge to new information entering through the text.

Journal activities have proven to be an excellent resource for facilitating access to a text through reading, thinking, and writing. According to the article “Exploring the Relationship of Creative Thinking to Reading and Writing” by Amber Yayin Wang, researchers believe that reading and writing foster creativity. She cites Piaget (2002) and Vygotsky (1986) positing that “thinking skills are closely related to language development” (Wang 39). When students transfer their own thoughts about a text, they are using their own linguistic background and blending it with what they’re reading and thinking and then transferring new written information that is their own unique creation onto a page. Wang shares a Torrance (1988) and Duffy (1998) definition of creative thinking that is one’s capacity for identifying tensions, offering ideas and suppositions, and then expressing the outcome. Creativity is

the ability to see things in new and original ways, to learn from experience and relating it to new situations, to think in unconventional and unique ways, to use non-traditional approaches to solving problems, and creating something unique and original (39).

The journal is an excellent tool for developing creativity because studies have shown that the same abilities are necessary for reading and writing as for creative thinking. The attributes researchers list that “foster creativity [are] the freedom and ability to communicate ideas, an emphasis on self-discovery, and attention to the individual” (39). A characteristic of creativity is the ability for elaboration, that is, to be able to provide detailed explanations. Journaling is the space where students are free to express details as a product of their textual interaction. The common results among my students have been unique perspectives and even unusual ideas which have fueled their cognition and expository work. The research Wang

presents offers conclusive evidence that an important correlation between reading, writing, and elaboration is the ability to create original ideas with specific details. Students must be able to engage with a text through reading and continue the process with writing, especially in multiple ways, just as in reading, in order to critically think and creatively elaborate information they have learned.

Research in education shows that the space where reading, thinking, and writing about a subject converge in a reader's mind is the place where learning takes place and brings with it a high percentage of retention in memory. In fact, learning is memory. Reading, thinking, and writing creates memories about what has been learned and that is how information is acquired and accessed by the mind. The conglomeration of this process is what critical thinking ability becomes.

Critical Thinking

Critical thinking is the skill that a reader utilizes to analyze and manufacture sense out of a passage. Research shows that when students are aware of how their cognitive skills work—that is, thinking about thinking—they can learn new skills and strategies. This process of metacognition is unknown to many basic writers whom Smith identifies as the underprepared in her article “Diving in Deeper: Bringing Basic Writers’ Thinking to the Surface.” She explains that everyone has the ability to think but that “circumstance, person, situation, problem, and prior knowledge all determine the level of thinking required by any individual about any particular problem” (670). Students must be trained to use critical thinking skills in order to access higher levels of thought. She calls these abilities “hierarchies of thought,” citing Moffett (1968) who designates them as levels of abstraction, referring to how far one’s immediate experience is from a subject. The more one does not

understand or have experience with a topic, the more abstract thought is utilized to derive meaning. The least amount of background knowledge is counterpart to the largest amount of abstracting; the problem with this abstraction is centered in the thinking area of the brain along with its ability for effective examination. This identifies a problem that many students begin their college careers with. They have not developed their background knowledge to be able to assess a text or concept and systematically apply what they know to construct meaning or participate in discourse. The problem is exacerbated by students' belief that something is wrong with them, that they are not good students, that they don't understand, or that they just can't learn.

However, the problem is not that students do not possess the ability to think; they just need to be taught the process of thinking. Critical thinking must be understood as what the steps of troubleshooting are to a mechanic or even a cook. Both are trying to solve problems. The mechanic may need to try different tactics of treatment to fix a flat tire. First, the tire is removed and visually inspected. Next, the tire may be submerged in soapy water if the leak is still unknown. The escaping air will send out a "flare" of bubbles to indicate the exact location of the trouble. From there, the mechanic can pinpoint the cause and find a screw or nail embedded deep into the tread or a tiny rock lodged between the rim and tire seal. A cook may need to add spices, thickening agents, or additional vegetables to get just the right taste and texture of a dish. The mantra of a chef is "taste often" in order to deliver a perfect plate. Whether fixing flats or cooking, mechanics and chefs cannot participate in their craft without knowing the steps required to perform their work. Critical thinking requires knowledge of the cognitive steps one needs to take in order to produce clear thoughts and ideas about a subject or text. Students have the ability to think; therefore, they have the

capacity to learn their own individual steps in their thinking process. First, they need to believe within themselves that they can learn how to critically think and that the problem is not unique to each of them individually, but that everyone has to start somewhere. It really helps to explain this to students. I assign reading homework from our textbook that discusses critical thinking with instructions to use annotation strategies and bring their books to class with their notations for discussion. I address the concept of critical thinking holistically in my classroom by making the problem humorous through telling a personal anecdote of something foolish I used to think. I let them know that everyone has struggled with knowing how or what to think, and especially that we're all the same and have to start somewhere. We are all human and we can't go beyond what we're taught and that is why we're learning about critical thinking together. Our classroom is a safe and comfortable place for them to learn. When they relax and realize that this problem with critical thinking is not insurmountable, the term itself loses some of its mystery and angst in their lives and they open their minds to learning how the process works. Now the application of critical thinking to their own writing process is not unfamiliar and they have a place to work from in their thought process.

Smith believes students' abstract thinking demonstrates another problem of students having intrinsic learning goals and extrinsic performance goals. When students balance their intrinsic learning goals with their extrinsic performance goals, their cognitive ability will increase. She proposes a two-fold solution, which is to teach students how to control their thinking through metacognition and apply it through the revision process of writing. These two processes are tools of inquiry that can empower students' experience of a text in multiple ways: reading, thinking, and writing. This is the action and power of learning. Learning is

what transforms the physical brain in storing new knowledge, which becomes a scaffold made of background information and enables acquisition of additional knowledge.

Development of intrinsic learning goals is activated by building students' prior knowledge through discussions about critical thinking. My students have discussed what critical thinking is and what it's not as well as proposed individual problems that may be unique to one student, but then we discover that another student struggles with a particular way of thinking too. Our classroom can collaborate with suggestions from students and instructor alike that enables us to address specific learning problems. The whiteboard is an excellent place for students to suggest strategies or methods as well as perceived deficiencies in their thinking processes. They provide me the power to understand how they're processing and offer answers and builds new skills that will help them grow. We are building their background knowledge at the same time. Beginning these discussions with a journal exercise in which they write down their definitions of critical thinking and questions about what they would like to improve in their own process opens access to the place in their minds where what they know about critical thinking is stored. I may have them partner or group up to talk about what they've written down about critical thinking before we start our whole class discussion. During our board work which may include partner or group representatives coming to the board to add to our list of critical thinking concepts and questions, I encourage the class to take notes on what we are discovering so as to benefit from their peers' knowledge. Finally, before the class session is over, they write a reflection on what they've learned, which critical thinking steps we've discussed appeal to each of them, and how they think they will be able to succeed in their cognitive process from here on. They have successfully increased their knowledge about critical thinking and begun the steps for

thinking about thinking. They need to reflect before they leave class while their stimulation, interest, thinking, and emotions are high in order to retain the best memories of our critical thinking instruction. They leave the classroom with a multi-faceted experience about the concept and activation of critical thinking in their own lives.

Cloud, Genesee, and Hamayan assert in their book *Literacy Instruction for English Language Learners: A Teacher's Guide to Research Based Practices* that experiencing a text in multiple ways ensures that a student will be able to fully participate in understanding complicated or abstract ideas and communicate their ideas in written form. The connections between reading, writing, and thinking must be stressed as a consistent routine in the classroom in order to advance students from beginning stages, through intermediate acquisition, and finally, to advanced supported states of literacy. Bear et al. (2007) is cited in their position that “there is a reciprocal relationship between reading and writing development. Reading informs writing, and writing makes for better readers” (55). Data shows that writing occurs and develops through contexts that are situated in time and space and are a key to understanding thinking. Instruction in critical thinking that includes reading and discussions provide opportunity for the entire class to collaborate, which develops a foundation in students' minds. Deciding what they know, want to know, and have learned, jump starts their ability to apply the steps of critical thinking to the process of thought in their work. The many approaches to literacy development are solidified in building prior knowledge, developing higher level thinking skills, and increasing reading and writing abilities. However, a discussion of language and its uses as a part of multiple literacies is necessary. Words are the instruments of conveying meaning through the relationship of

speaker, audience, and message; consequently, a student must be able to know how to use words productively in order to create effective discourse.

Writing

Students need to learn that language does something. They should understand that when a text is experienced, the reader engages with a creation and arrangement of words that transmits a message. This interface with the writer and the reader is what language does. Micciche argues in her article “Making a Case for Rhetorical Grammar” that “rhetorical grammar is just as central to composition’s driving commitment to teach critical thinking as is reading rhetorically” and she asserts that grammar is a necessity because students need “to see language as having an empowering and sometimes transformative potential, and to critique normalizing discourses that conceal oppressive functions” (221). Students struggle because they do not understand how to organize their ideas into well placed words and phrases that communicate their purpose for writing. So many of my students have sat down at my tutoring desk and said, “I can’t write; I hate this.” Looking over their grammatical errors, misspelled words, and disjointed ideas, I find a positive element that I can direct their attention to. Repeatedly, the solution has been to talk about their ideas and ask questions about why they think what think. I love to ask “why?” That’s when students can search their minds and respond honestly about some connection to the text or an experience that influences their opinions. When they are able to connect their thoughts to their message, they are able to use their own discourse for an express purpose. This is how they can learn what language does.

A student’s message must be one of the first priorities so he can understand that academic writing is a different way of expression and based upon his unique analysis of a

text or topic. This is why rhetorical grammar helps students see how language forms are used in scholastic work. Students need to build their background knowledge of how academic language is constructed, how it looks and sounds, and how to develop their own process of putting it down on paper. With practice, students can learn to express themselves academically with confidence.

Grammar should be viewed as a positive aspect and necessary function of critical thinking for engaging in communities of practice, especially the academic community. Students must be able to understand the power of rhetoric and how language interacts in form *and* content. Grammar is an integral part of identity, culture, economics, and politics, which can be utilized to affect the distribution of power, and is inherently tied to literacy. Knowledge of grammar must be an integral part of the critical thinking process for students to have agency in academic discourse. Micciche posits that

grammar in the service of rhetoric [demonstrates] how techniques that create rhythm and emphasis heighten the feeling being conveyed, how subordination expresses relationships among ideas, how [the] power of words [can] create culturally relevant and, for some people, resonant stories (224).

Since writing is “made,” grammar has a role in its production. Rhetorical grammar pedagogy teaches analytical thinking; therefore, it’s transformative. Understanding uses and structure of language can serve as a concourse for students to appropriate critical thinking ability as well as add to their cognitive process of analysis.

Research has determined that academic literacy skills are increased through the learning of critical analysis. The capacity to critique is another literacy tool that will connect content and background knowledge. Sanchez and Paulson show in their article “Intersected Literacies: Reading, Writing, and Critical Thinking” that the term “critical language awareness” (CLA) is a concept whereby students become “more effective and critical

readers, a skill that [will] help them in both academic and workplace contexts” (118).

Linguistics connects to CLA because “language is tied up with identity, values, and power” (120). Students must be able to connect with and have a voice in a text, which becomes operational as they collect and store background knowledge through pedagogy that equips them with critical discourse knowledge. They need to be able to recognize voices, the voiceless, positions, access, power, and equality as well as interrogate texts to determine whose objective is being satisfied by the language.

CLA demonstrates the devices of language, which will aid students’ understanding of how language is social and dialogic. Herrick writes in his book *The History and Theory of Rhetoric: An Introduction* that “discourse always performs a social or relational function; it responds to, or anticipates a response from, another person” (218). Thus, students can join the multi-voiced academic conversation, synthesizing CLA with rhetorical dexterity and grammar to penetrate a discourse with their own ideas and intentions. Our language is ourselves, and is connected to literacy, which is shaped by beliefs, culture, and situations. Sanchez and Paulson in their article cite Allan Luke, who said “Criticism is not a genre, not a skill, not a later developmental moment, not a reading position. It is . . . a constitutive and available element of every sign, utterance, and text” (117). Academic literacy empowers students to become audience members who are able to participate in and partake of the action of the rhetorical goal of a text. CLA transforms a basic writer into a citizen who is empowered to construct her own identity and effect change not only in hers, but in the lives of others.

I teach CLA in my classroom through activities with students’ own work. Making it personal for students helps them really see what they’ve written and the grammar is learned

at the same time. They begin with grammatical revisions such as pronoun and subject-verb agreement, plural/singular, fragments, run-ons, and punctuation. Then we progress to students bracketing their thesis statements, underlining topic sentences, circling repeated words in each sentence, lining out slang phrases, and highlighting transition sentences. They must find all of their tone words, which are emotive words they've placed for a purpose. We affectionately call this process "tearing up your paper." They deconstruct their essays. It's heartening to hear their comments, such as "what was I writing? I don't even know what I meant!" I have students continually do what I call, "zoom out; zoom in." They can understand this phrase because we're all looking to get that perfect shot as if we're taking a great picture. The zooming-in process helps them see and become aware of the language they're using and find the means to improve their work until it contains all the necessary components of an academic paper. They carry their new knowledge with them and begin to see language and understand how it works on TV, in the movies, in songs, and in many other forms we experience in our classroom as well. They zoom out to look at their writing as a cohesive, fluent work, which takes their reader through the process of their written ideas to a cogent conclusion. This process has really helped my students on both sides of the campus—English composition and English as a Second Language writing.

We also look at commercials on YouTube, song videos, and magazine advertisements along with the clothes we're each wearing to find the message and then decide if it's valid or fallacious. These types of activities are authentic activities that connect students' worlds to their learning. We can read about fallacies, reasons, and appeals in our textbooks all day long, but the light of understanding brightens their eyes when they are able to connect content to what they already know. Writing these experience in their journals seals it into

their memory and the concepts become salient for them. Their writing becomes more informed, and their capacity for higher levels of thinking ascends to new heights. Classroom discussions really engage students' thinking about writing because they are able to expand their minds with shared knowledge from their textbook, classmates, and instructor. Peer review activities with worksheets that have specific questions for students to look for on their peer's work engage them in critical thinking through writing practice. This is an excellent tool for students to build their own background knowledge of how to be a critical reader of a text. At the end of the activity, I have my students discuss with their peers what they found in the paper and why. Ground rules of engagement such as "no negative comments are allowed" and no phrases such as "I didn't like . . ." The experience must be framed around a positive outcome in order for students to be willing to receive a benefit. I follow it with a whole class discussion of what they discovered about themselves. Finally, they reflect on the entire process in their journal and the entire flow of reading, thinking, and writing is recorded not only through the mind/hand/pen connection to the page but also deposited into their memory for later recollection. They are storing new knowledge in their brains and developing tools for future use and success.

Neuroscience and Neuroplasticity

Reading, thinking, and writing actually change the brain through synaptic growth caused by chemical and electric action. Scientists have shown that these are actually a process that is linguistic, cognitive, and creative. Dianne G. Arnold and Barbara Swaby describe a remediation process for reading problems in their article "Neurolinguistic Applications for the Remediation of Reading Problems." They describe studies in which behavioral therapists were able to effect fast changes in clients based on their body language

and speech. Arnold and Swaby assert that “neurolinguistic programming means matching language with thinking processes” (831). The theory uses audio, visual, and kinesthetic clues from a client with reading problems to create learning activation in the mind. The client/student is asked to visualize images, imagine sounds in relation to text, and describe smells and movement or textures. The client is able to enter an active learning state in which “the student’s posture is erect, the head is tilted up, eyes movements are predominantly visual, and voice responses are high in pitch and quickly paced” (833). These strategies have proven to be highly successful for increasing content learning and expository activities. In fact, researchers have found that experiencing a text through visualization is extremely effective. The greatest result is the ability to elaborate, which demonstrates an increase in creative thinking. This is likely the reason why writing in journals in reflective or question-response form produces original ideas and perceptions about textual encounters. Students are using their own linguistic background and cognitive processes, which bring together information stored in visual, olfactory, aural, and kinesthetic locations in their minds. Memories from these areas are recalled and brought to the forefront of one’s thinking which combine with one’s own unique internalized language and is processed into a concrete formulation of new thought. Students can easily to learn and retain information by making connections to knowledge already in their brain storage than to recall content by rote that has no association with any five senses or emotional memory. Neurolinguistic advances can greatly assist educators in utilizing the brain’s natural electrical and chemical processes to create instruction in which all can access learning no matter what their style or proficiency level. Neurogenesis is not only a wonderful circumstance; it’s also the key to developing

background knowledge and providing a democratic and liberal education in which everyone can learn and grow.

The brain is electrifying. Microscopic neurons fire in the process of sending impulses to one another and grab onto dendrites, which are small extensions of neighboring neurons forming synaptic connections. A large matrix results in which one neuron can literally communicate messages to thousands of other neurons that it's connected to. This is how learning takes place. The brain is actually edified and changed by what is learned. This process is identified as neuroplasticity, which is an amazing capability of humanity.

Discoveries in neuroscience have found that our brains are very malleable and according to the article "The Adaptable Brain" by Mark A. Hirsch and Helmut V.B. Hirsch, "adaptability is the hallmark of the human brain . . . no brain is too old or too chronically ill to change its structure and/or its function in ways that can enhance quality of life" (2). The process of neurogenesis involves not only the growth of new cells but also what is known as "pruning" in which the brain eliminates cells and connections that are no longer functional by discontinuing nourishment and degeneration occurs. The growth of neurons and their dendrites are affected by environment, exercise, and social connections. The brain can experience what is called an impoverished or enriched state which persists throughout one's life. An enriched state is one in which the brain experiences a complex environment with social interaction, stimulus, and body motion as opposed to an impoverished state which is lacking these activities. The development of human infants who were raised in orphanages with little human contact compared to those raised by their mothers showed that "clearly, social interactions and complexity of the environment impact motor and cognitive development" (4). Studies on laboratory mice demonstrate an enriched environment-variety

of food, toys, mazes, and a running wheel-resulted in thickening of the cortex, dendrite growth, and changes in the complexity of syntactic connections between the neurons. The cerebral cortex in a human brain is the outer layer of the cerebrum, which is made up of the left and right hemispheres of the brain. While the cortex is only 3 millimeters, it's made up of closely packed neurons which control body functions, consciousness, senses, motor skills, and reasoning and language. This portion of the brain grows thicker with neuronal growth as synaptic connections are increased. The cortex is also decreased through neuronal pruning. Thus, neuroplasticity is the process of both increasing memory as well as forgetting memories. Building these neuron connections is just how one becomes literate in a community of practice is how one can be literally transformed.

Wilhelm, author of "Literacy and Neuroplasticity: Transforming Our Perspectives and Ourselves," posits the notion "that literacy and literature can be transformative" (37). Reading is a "monumental human achievement," according to Wilhelm, who describes the brain's ability to store and retrieve new knowledge as "cognitive fluidity." Spoken language, accessing stored phonemic alphabet, and the motion of the eyes across a page of text all take place in different areas of the brain. The extraordinary achievement is that reading happens when an individual networks these different locations to assimilate information which strengthens and grows neuronal connections. In the process of neurogenesis these new connections become the physical location in one's brain of new knowledge; therefore, it becomes an accessible place for connotation and creativity. This cognitive fluidity *is* literacy in practice. Wilhelm asserts that the "different functions that process the images of letters, their sound, and their meaning, as well as the motor functions that move the eyes across the page" is the act of reading; therefore, "practicing literacy literally changes our brain" (38).

Reading is the mind's ability and entry into new frontiers and worlds of thought and knowledge. Neuroplasticity offers rich data for literacy development; however, educators should exercise prudence in neuroscience-based instruction.

A few polemic issues in neuroscience Willis cautions against are what she calls “neuromyths” about brain-based learning in her article “Building a Bridge from Neuroscience to the Classroom.” She is right to call attention to the growing body of work that rushes to meld neurological data with education because science and the academy may not have a complete understanding of one another. Her concern is rooted in the overwhelming scientific data available and how instructors can incorporate it into their classrooms. Willis calls for teachers to develop methods that use brain-based learning that includes knowledge of current educational practices. Educators need to comprehend and apply the best strategies for instruction even if it means taking risks in trying new methods. Additionally, the essay explains important physiological descriptions of neuronal networks and corroborates how these networks use stored information (memories) in the occipital lobe (vision), temporal lobes (auditory), and the parietal lobes (tactile-sensation) together with linguistic and cognitive processing to produce thoughts. These are theoretical steps to building new memories, which is in essence, learning. The greatest evidence for equating neuroplasticity to memory and learning is that researchers including Willis report that “even after the last big spurt of brain growth in early adolescence, neurotrophins (growth-stimulating proteins) appear elevated in the brain regions and networks associated with new learning and memory formation” (426). Neuroplasticity and new learning and memory formation are one and the same. Everyone has learning potential for all develop memories day by day. Neuroplasticity is how we conceptualize, imagine and dream, comprehend, have

“aha” moments, understand, and make connections. These connections include new and modern literacies students, instructors, and society are experiencing as they progress deeper into this “techno-century.”

21st Century and the Digital Age

Another language of literacy has emerged that students engage in everyday, a language they use perhaps more than language with family, friends, school, and work. The 20th century delivered the ubiquitous age of digital technology and with it came a “new literacy.” Statistical data shows that today’s college students have spent less than 5000 hours of their lives reading, but over 10,000 hours playing video games and more than 20,000 hours watching TV. Computer games, email, the Internet, cell phones, social media, and instant messaging are a vital part of their lives. Prensky introduces digital students in his article “Digital Natives, Digital Immigrants” and asserts that “today’s students think and process information fundamentally differently from their predecessors” (1). *Digital Natives* are students who were born into the age of technology and are “native speakers” of the digital language of computers, video games, and the Internet. *Digital Immigrants* are those who have learned to adapt to their environment, but they will always have an “accent” which is knowledge of a past without technology. Prensky asserts that today’s *Digital Natives* “crave interactivity—an immediate response to their each and every action” (5). Research in neuroscience has demonstrated that technology has changed how an individual’s brain is reorganized due to the different experiences of media in the digital world. The plastic brain has adapted to the digital environment. This is likely why the standard lecture delivery will not work like it used to in years gone by. Collaboration as a classroom and reading, thinking, and writing are able to fill the need of today’s students for constant synergy. They need

reciprocating instruction where they can immediately process and apply what they're learning. Instructors are now competing with smart phones, tablets, and laptops in the classroom and prohibiting their use will simply send smart phones incognito under desktops or hidden in textbooks. Keeping students actively engaged through reading, thinking, writing, and discussion in the classroom empowers them and the teacher to keep a steady supply of instruction and learning flow during precious class time.

Egbert of Washington State University wrote her book *Supporting Learning with Technology: Essentials of Classroom Practice* for the purpose of integrating digital and academic learning for the students of today's world with a specific focus on pedagogical goals and student learning first. She identifies the new literacy of technology as

new ways of being knowledgeable; there are three main literacies of technology which are *information literacy*—the ability to recognize when information is needed and where to get it; *technological literacy*—the ability to make informed, balanced, and comprehensive analysis of technological information; *media literacy*—which involves critically thinking about the influences of media (14).

Bernstein believes these literacies demonstrate a tension between traditional instruction and the technological age of mass communication. The International Society for Technology in Education (ISTE) has established the National Education Technology Standards for Teachers (NETS), which defines concepts of technology-based education with teacher and student learning outcomes as well as social, ethical, and human issues. Students can learn faster, have better attitudes, and achieve more in a technology-rich environment. They need to be able to have real world technology available in their classrooms in order to make connections between their education and real world lives. Egbert insists that students must also be empowered to become *Digital Citizens* of the world in the global arena of the Internet through utilizing “netiquette” and other technology protocol. Communication, critical

thinking, creativity, problem solving, and production are important components of academic literacy in the use of technology for reading, writing, and learning in the classroom. These are the pedagogical methods for composition in our classrooms in the 21st century.

Instructors who are unable or unwilling to utilize technology for instruction may find student engagement difficult. PowerPoint presentations, videos, online charts, graphs, and other tools will satisfy students' need for interaction. One instructor I know has her students use their phones to look up information. They race to provide definitions or explanations to the rest of the class. A great tool is also using Blackboard, Moodle, or other online learning platforms that require student participation outside of class time. These are additional sources of collaboration for students where they can complete components of work and post for the rest of the class as well as take advantage of the research of their classmates. This reinforces learning and off campus academic culture. Homework is no longer simply a student alone with a textbook or a document to write. Additional Internet uses for learning are podcasts and video chats where students log in from their independent locations as well as students authoring online work accessible to the instructor and entire class such as livestream presentations or movie makers.

Herrick also mentions this “new literacy” and cites Andrea Lunsford who believes that the digital age has ushered in a literacy revolution that has not been experienced since Greek civilization. She claims that students are actually writing more not less and that their composition is “active, public, strategic, and persuasive—in other words, traditionally rhetorical” (223). Herrick also examines the rhetoric of the Internet citing evidence that the more websites one visits, the more advertising one experiences. He connects this to Lanham’s definition of rhetoric as the economics of attention. The important point Herrick

makes is that classical rhetorical patterns such as arrangement and argument are purposed to precipitate an audience response. This emergence or return to rhetorical concerns in the digital world is a rich database for students to engage in critical analysis and foster higher order thinking skills. In the 21st century's global society, managing the information overload can be attenuated through rhetorical means. The databases available are monumental and growing deeper every day; technology is literally bulging with credible and incredible knowledge. In the deepening quest for revenue in today's world, media marketing is ubiquitous and usually purposed for nothing other than profit. Even in scores of philanthropic endeavors, high paid personnel are making substantial livings. While there may not be anything wrong with this, students need tools to be able to sort and quickly decipher intentions and motives in communication and culture. Instruction today needs to attenuate the information overload with procedures for filtering and qualifying authoritative sources and accurate reporting. Rhetorical modes are an excellent way to empower students to manage media, information, and technology data through critical analysis. The Internet is a rhetorical device that displays messages in many forms. Facebook, Twitter, Instagram, and Shutterfly are demonstrations of rhetoric that students can use to discover purpose and intention through critical means. These mediums are excellent tools for interrogating because, as Kenneth Burke claims, they reveal as much as they conceal. Studies are now asserting that Facebook can cause depression because the virtual self that is represented online is much better than the physical self in the real world. An excellent activity would be one in which students compare and contrast what their Facebook selves reveal with what they conceal in order to analyze the steps and weaknesses in the argument of their virtual identity.

Herrick asserts that “the writing that the student generation [of today] participates in is active, public, strategic, and persuasive—in other words, traditionally rhetorical” (223). They are able to take advantage of the *kairotic* moment—understanding their audience and using the best method to deliver their point. The students of today are no longer spending their time writing letters; they are writing online, on their tablets, on their phones in colloquial language, and in public forums. According to Herrick, the digital writing of today’s student is “closer to the Greek tradition of argument [which are] audience-adapted, persuasive, responsive, and planned” (223-224). He concludes his chapter on contemporary rhetoric by citing *Wired* magazine’s Clive Thompson, who was reporting on Lunsford’s study of 15,000 students writing in forms from blog posts to classroom assignments at Stanford University. Lunsford found that the students “defined good prose as something that had an effect on the world. For them, writing is about persuading and organizing and debating” (224). The world of today has ushered in a digital culture in which rhetorical modes provide the basis for communication. Students can use technology to construct and decipher texts in many forms through reading and will develop their abilities to critically think and write in the digital world of the 21st century. Instructors must be able to use technology and digital learning in order for students to continue developing background knowledge for living and working in today’s world.

Teacher and Student Responsibility

The two most important participants in the journey into academic literacy are the student and instructor and their collaborative efforts. Students need to take responsibility for their learning. Among many suggestions, Bernstein’s efforts with her own students resulted in them taking responsibility to spend a good amount of time reading and studying a text, but

also to use technology and multi-media forms of interaction such as presentations, historical and cultural research, and rhetorical analysis to create learning that was transformative (93). Smith empowers students to grasp agency and become thinkers who actively engage skills and strategies that focus on intrinsic learning goals in order to read and respond more forcefully. I have my students write in their journals on the second day of class what their expectations are for our time together. They communicate to me what their strengths and weaknesses are in reading, thinking, and writing and what they would like to improve. I also have them explain how they think they will grow. They need to build an intrinsic goal that will help motivate them to participate fully in their learning in our class. Building principles of scholarship assists students' acquisition of academic literacy.

Arthur L. Costa and Bena Kallick wrote *Habits of Mind* in 2000 wherein they describe sixteen habits of mind for students to develop in order to think and behave with intelligence when encountering challenges in learning as well as life. The principles of habits of mind are to be able to develop cognitive steps for perceiving, solving problems, persistence, and creativity in production. California's Bakersfield College as well as other community colleges have utilized these principles attached to workshops, t-shirts, graphics, buttons, and other themes on campus to teach and support students' skill-building for success. These habits include concepts from this work including thinking about thinking—meta-cognition—interrogation, revision, critical expression, collaboration, flexibility, creativity, and of acute importance, connecting with background knowledge. Other attributes in habits of mind development are persistence, empathy, risk-taking, humor, and life-long pursuit of learning. These habits are bi-directional and are necessary on both sides of the classroom—the teacher and the students. At the beginning of each term when I give

accolades to my students for attending college and tell them that our university strives to provide quality education, I insist that students take responsibility for their learning. They need to know that they are volunteers in their education—I stress this the most. I explain that they need to be mindful of their syllabus because it provides a roadmap of our coursework together. Homework and missed classwork are their responsibility; they can check their syllabus or find out from a classmate what they need to accomplish. At the same time, I let them know how I will be working for them and what my responsibility is to them. While I understand what they're going through and care very much about their success and needs, they also need to put as much or more into their learning as I do. We are responsible to each other to establish and maintain a good working relationship because our success depends on one another.

Rose mentions that critical thinking develops from relationships in his book *Lives on the Boundary*. He describes the influences his teachers had on his learning and declares that the human relationship of student and teacher is what can determine the success or failure of a student. He charges that instructors need to be able to listen and look for clues to empower a student to unlock his or her ability as a learning platform. It goes beyond memorizing students' names. Each student is unique and she or he has a "heart." Students have goals and backgrounds that are both very similar and very different from one another, each of these and deserve attention and notice. The classroom presents a space situated in real time where instructor and students come together to wrestle and conquer content learning that will shape and form each one into a new someone, someone more relevant to themselves and others. This relationship is greater than the sum of its parts because each person is connected to a

network that reaches far and extends globally to others, just like neurons in the brain extend and connect to send and receive messages to thousands.

As a final journal entry near the end of our course, students write a reflection about where they expect to be in five and ten years, what they liked the most about our class, what they liked the least, and what was the greatest thing they learned. These entries are the most heart-wrenching and heart-warming to read because of their honesty, their growth, and what they realize about themselves. Additionally, they often write comments that are very edifying and bring tears to my eyes. We have journeyed together and I know that I have learned just as much from them as they have from me. For me, this is the joy in teaching and in learning. Teachers must realize their role as an active participant in literacy for each student. An instructor must be willing to view both sides of the classroom, the students' responsibility and action, and the teacher's role as active on the other side of the classroom—delivering content. Students are responsible to respond and participate in instruction to extend their knowledge beyond what they arrived with on the first day of class. It's a symbiotic relationship that can be equally pleasurable and rewarding for everyone in the classroom. Both student and instructor are prominent operatives in the academic community of practice.

Conclusion

While the scope of this thesis is limited, academic literacy acquisition (ALA) has broad implications. Second language theory posits that it takes five to eight years to become proficient in academic language. This is also known by the acronym Cognitive Academic Language Proficiency (CALP). California State University has developed the Expository Reading and Writing Course (EWRC) over twenty years of collaboration with leading

professors who understand students' needs for rhetorical reading and writing in order to develop their knowledge and capacity for critical thinking. Work on this course includes participation of high school teachers from many disciplines to develop modules that will train students in academic language applications thereby providing them with a toolkit for success in college and their future professions. Principles from this important work are being delivered in community colleges and universities as well as in seventh through twelfth grade levels in middle and high schools. Educators and administrators alike understand that students need time, instruction, and building of their background knowledge for academic literacy acquisition. Future studies to add to this vital necessity in students' education will be required to develop a larger framework and interface of culture, linguistics, neuroscience, and the digital age for teaching reading, critical thinking, and writing in the 21st century and beyond.

Academic Literacy Acquisition (ALA) can be described as the development of the cognitive and linguistic practice of critical reading, academic language awareness, grammar structure, rhetorical fluidity, and expository forms so as to comprehend complicated and abstract concepts through development and interaction with one's background knowledge as well as becoming conversant about a range of subjects. This experience will be contingent upon one's culture, traditions, and identity and provides a unique and individual opportunity to transform the world with new ideas. The problem with the lack of Academic Literacy that students arrive in college with is the deficit of background knowledge. Other accessible multiple literacies that students possess can be utilized to build and store tacit knowledge. We can conclude that literacy is cognitive because Bloom's Taxonomy, linguistic and

cultural awareness, and communities of practices connect back to literacy as the intersection of skills and knowledge.

Skills are developed, knowledge must be built, and the foundation for this construction is laid upon the brain's plasticity; it has the ability to grow new stores of knowledge and skills. Literacy originates and flows from the headwaters of one's own thoughts conflated with new concepts. Reading practice, fluency, and speed mobilizes interactive thinking in which a reader experiences textual references to increase knowledge and linguistic ability through the introduction of new concepts and vocabulary development. As this "stream of consciousness" begins to gather strength and volume, a student participates in an educational cooperative process with an instructor and classroom through collaborative practices of critical examination and composition.

The student brings his or her existing literacies of identity, culture, traditions, activities, and belief systems and employs this tacit knowledge as rungs on a ladder of thought levels. The lower level of interaction begins with memories and progresses with classroom, text, teacher, and student collaboration through succeeding levels of higher order thinking skills. These skills such as comprehension, interpretation, application, analysis, synthesis, and finally to making meaning with evaluative statements scaffold a student to acquire the ability to move with cognitive fluidity and rhetorical dexterity through textual and discursive communities of practice. This monumental human achievement, the ability to reconfigure one's brain is how literacy can transform an individual. A student can progress from encountering a text or ideology with little or no background knowledge resulting in abstract thoughts that render it impossible to achieve engagement to application of meta-cognitive thinking which can analyze, interact, and join purposefully into a textual

conversation. As this confrontation occurs repeatedly, a student ascertains context, situation, and spatial experience, which actuates the capacity to criticize values, power, and doctrines, as well as to listen for voices and the voiceless. Literacy is also information, media, and technology, and students can utilize these to meaningfully engage in discourse through multiple modalities of expression and presentation. Today's students are either *Digital Natives* or *Digital Immigrants* and critical thinking development is enhanced by this new literacy which relies on rhetorical tradition to precipitate an audience response in a global, public conversation. Literacy is the highest human impulse to think and re-think experience in place. Literacy is transformational. Finally, Paulo Freire wrote in his book *Pedagogy of the Oppressed* that

Education either functions as an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity or it becomes the practice of freedom, the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world (117).

Students need time to learn and empathetic instructors who are committed to teaching with expertise and care. Establishing an active learning environment will ensure students will progress through the stages of learning from preparing to learn, receiving instruction and practice, to maintenance and reinforcement. The psychological and physical environments in the classroom are equally important, and teacher and student are both responsible for creating a space conducive for learning. Linking instruction to background knowledge is the foundation for literacy formation. Reading, thinking, and writing about instructional content provide a multi-faceted experience for students to receive and retain information. This will build mental pictures which are the strongest connectors for memory/learning. Journalizing,

class discussions, multiple media forms, and groups and partner work are successful reinforcements for fostering creative thinking and elaboration of ideas.

Educators and researchers agree that the foundation for knowledge is through reading, thinking, and writing in order to devise background knowledge that empowers students to participate critically in their life-worlds thereby effecting change, transforming themselves and others. Students need to acquire academic literacy not only for success in college, but to be able to participate fully in the rest of their lives individually, in their professions, and in their communities. The multiple literacies of identity, community, culture, family, education, values, activities, and technology can be developed and expanded through self-motivation and partnership to partake in the unlimited fertile “litera-scape” of academic literacy. Students can literally change their brains, and change their worlds in the process.

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Vita

Laura E. Harris began her college career at a California community college, College of the Sequoias, double majoring in Spanish and English and earning Associate of Arts degrees. She transferred to California State University Bakersfield and completed her Bachelor of Arts in English with a minor in Psychology. Laura continued her studies at CSU Bakersfield, earning a Masters of Arts degree in English while concurrently completing a Graduate Certificate in Writing. She also completed a Graduate Certificate in Teaching English to Speakers of Other Languages (TESOL) at California State University San Bernardino. Laura is passionate about teaching all levels of composition and literature in the California community college and state university systems as well as instructing international and multi-cultural students in English as a second language. Her interest and research in academic literacy acquisition (ALA) as well as other English and ESL pedagogy will continue through studies in rhetoric, composition, linguistics, neuroscience, and 21st century society.