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Implementing Teaching Strategies to Enhance Critical Thinking through Literature in High School Students

Arcelia Velasquez

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Senior Capstone

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Abstract

Critical thinking is when a person makes an inference on a topic through analyzation, and inductive reason. This form of inferences uses a set of prior skills and knowledge to conclude. It is a teacher's job to provide students the tools to enhance their critical thinking. Through use of literature review and surveys with teachers and students, this capstone discusses skills that teachers implement teaching strategies to enhance their students’ critical thinking through freedom of choice of literature for low income high school students. Critical thinking is not just important in the school setting but in the outside world. Students will need to adapt to their work environments and collaborate with peers to solve projects and will use the inductive reasoning skills to create resolution rather than potential theories. Critical thinking becomes most important in college where they must learn the contents for their discipline while learning how to apply it. The findings reveal that critical thinking is an important piece to master when students are at the high school level and probe the tools that teachers are using to enhance the strategy through literature.
Introduction and Background

I am interested in bringing literature back into the high school setting as a primary source for teaching critical thinking skills. I think literature helps enhance critical thinking skills and although schools do support the incorporation of books into the classroom, the materials and strategies are not allowing the student to improve their critical thinking skills. Throughout my service learning experience, I have experienced the decrease in reading and more focus on writing. In my early school years, I only read novels assigned in the classroom. It was not until high school where I began to read outside of the classroom for my own pleasure. My school adopted a scholastic reading program which encouraged students to read outside of class with the freedom to choose which novels they read within their given reading level. By allowing students to have power in choosing pieces of literature they read, they increase their intake in stigmas and can expand their ways of thinking. For my senior capstone paper, I focused on the benefits of high school reading program and encourage other schools to adopt similar programs. The question that I will answer is How do teachers implement teaching strategies to enhance critical thinking through freedom of choice of literature for low-income high school students? When reflecting on the reading I did in high school I did not know I was developing my critical thinking skills, I could efficiently reflect and analyze the text. These skills would later be applicable to my college classes and when we discuss how our teachers supported us in learning critical thinking I would always refer to my English classrooms.

Based on my observations I have seen teachers have been recycling the same novels in classroom for many years, these novels have been referenced as classic. Although this is allowing equitable universal education, there needs to be an opening for contemporary novels
that reflect the social norms of the students. While it is important for students to read the novels that inspire contemporary authors, I believe they are too difficult and beyond student level to comprehend without years of literature studies and reviews. The importance of critical thinking is its universal usage as student learn to analyze and evaluate an issue to form a judgment. This form of critical thinking is not only a useful tool for the classroom but in future careers and endeavors. It creates the form of sophisticated thinking that allows for an answer to vital questions and problem-solving. Critical thinking could be applied in three main steps: understanding, practice, and responsibility. With these three students, can create a more complex thinking of the world, and in return put some practices to create something for the greater good.

I was first introduced to the concept of critical thinking in my LS 277 Service learning class where we were taught how to understand the students we would be working with. We discuss pedagogy, schemas, metacognition, etc. These topics gave us background knowledge to discover how we can help enhance the learning experience of the student we would be working on service learning. These topics were also meant to show us the diversity of students. Metacognition means “thinking about thinking” (Maclin, 2007, p. 564). This study is a form which student can track how they are learning. This is an important step when learning to think critically due to understanding how one process information and what they do with the information they have gathered. With the shift of education to common core, students are required to stack on previous knowledge and developed a process to find solutions rather than being told by the teacher what tools to use. This is where the importance of critical thinking comes into the classroom.

Critical thinking has been around since the time of Socrates, he believed that the people could not trust those in high power and position to have sound knowledge and insight (Paul,
1997. p 1). He created the notions to question common beliefs with need in thinking of clarity and logical consistency. His students, Plato and Aristotle, later continued his investigations. (Paul, 1997. p 3). The men lived by the idea that there was a deeper meaning to lives, they used critical thinking to come up with their own conclusions. During the Middle Ages, the systematic critical thinking was found in writing and teaching. They used this method in a mode of cross-examination to systematically cultivate. During the renaissance period, “a great number of scholars in Europe began to think critically about religion, art, society, human nature, law and freedom,” they used this to question the way in which order was established (Sofos, 2018, p. 3).

The main research question of my article is: How do teachers implement teaching strategies to enhance critical thinking through literature in high school students? My question refers to how teachers are enhancing high school student’s ability to think critically. This question is interesting because although many researchers agree on the importance of this topic I did not get exposed to this topic until college. Although high schooler begins to learn critical thinking there is a lack of sophistication in the technique. The reason for my study is that critical thinking is a universal concept that can be used in all course subjects, and be applicable to the outside world. I am considering the skills that are teachers are using to enhance critical thinking skills with literature. The significance of this research is to discovered whether there is proper teacher preparation or curriculums in place to assist teachers. If I discover there are not I will try to propose a possible solution for my research question. I shaped this question when I sat down with my professor and proposed my interesting in the topic
My method of this research for my primary research question, “how do teachers implement teaching strategies to enhance critical thinking through literature in high school students? This was then followed by forming my secondary research questions: What does research say about
teaching strategies that enhance critical thinking through literature in high school students? Is there a curriculum in place for literature to enhance high school students’ critical thinking skills? If there are, what strategies are teachers using to enhance their students’ critical thinking skills? Given the freedom of choice of literature, how do teachers teach critical thinking skills in high school students? Are there resources available for teachers if they want to implement teaching strategies that enhance their low-income high school students’ critical thinking skills?

To answer my primary and secondary research question I will obtain peer-reviewed research and journal articles that relate to my topic through the CSUMB library. These questions would have been more efficiently answered if I would have gotten in contact with a school where they have implemented active reading programs in their school that tracks student knowledge. I also sent out a survey to various teachers and discuss how they are using literature to enhance their student's critical thinking skills. I also explore how this form of achievement is being measured in the students. I got the perspective of college students to obtained their understanding of what critical thinking is and how they can learn the skills they have learned in their future careers.

My method of research formed my primary research question, “how do teachers implement teaching strategies to enhance critical thinking through literature in high school students? This was then followed by forming my secondary research questions: What does research say about teaching strategies that enhance critical thinking through literature in high school students? Is there a curriculum in place for literature to enhance high school students’ critical thinking skills? If there are, what strategies are teachers using to enhance their students’ critical thinking skills? Given the freedom of choice of literature, how do teachers teach critical thinking skills in high school students? Are there resources available for teachers if they want to
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My research is valuable to teachers in high school as in the first two years of college when students are fulfilling their GE and humanities requirements they will be required to use critical thinking in their classes. Although these classes may range from their major they technique learned will greater enhance them in their major specific courses. Its importance for students to master critical thinking is high school as they can get a more personal education while in the classroom with a consistent process when college professor try to build off previous skills. While it may be easy to assume everyone knows how to think many of it is biased, distorted, partial, or prejudice. Critical thinking sets these thought asides and allows for fair judgment without person interruption

My research question was very different when I started through research and survey in it has changed quite scientifically. My original question focuses on freedom of choice of literature, but I soon found with the versatility of literature, there can be any literature used to enhance
critical thinking. My primary question address how a teacher is enhancing the skills through literature in high school students. The reason I choose literature is that it can be interactive for the reader. Through magazines, articles, fiction, and nonfiction there is always literature of interest to students so they will want to practice their skills without seeing the process at work. I found these answers through peer reviewed articles who have explored their own perspective of critical thinking.

My secondary research questions that will further along my research are: What does research say about teaching strategies that enhance critical thinking through literature in high school students? Is there a curriculum in place for literature to enhance high school students’ critical thinking skills? If there are, what strategies are teachers using to enhance their students’ critical thinking skills? Given the freedom of choice of literature, how do teachers teach critical thinking skills in high school students? Are there resources available for teachers if they want to implement teaching strategies that enhance their low-income high school students’ critical thinking skills? These questions are extensions of my primary questions which allowed me to go in depth in my research.

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**Literature Review**

In my literature review section of my paper I will synthesis the information gathered from numerous research. While there has been an overall support for critical thinking an effective way of implementing it to students is not in place. Critical thinking is a vague topic. Therefore, a singular way to teach it is not possible, the teaching tools must be versatile as well. With literature, a teacher can use magazines, websites, novels, poems, music, etc because literature is a
My research questions which explore how critical thinking can be used as an enhancer is like the philosophers would brought this practice into place. They refused to accept things as they were and began to challenges the norms. Every domain of the life can be questioned and applied to with critical thinking. As different domains are open we create more conversation and allow for differences to be expressed, and to address critical issues occurring in the world. According to Paul (2007), “It (critical thinking) is a system for opening every system. It opens business, chemistry, sports, history and professional practice. It opens Ethics and enables us to see through ideology. It enables us to put things into intellectual perspective. A system that opens up systems is one way to think of critical thinking” (p. 1). This is allowing for the expression of diversity in an organized manner and creates a respectable environment where people can be honest with their thoughts.

Critical thinking was used in the real world before its made its formal entrance into education. Critical thinking was originally formulated by Kant “in a holistic principle used as a means for understanding ‘the real world’” (Horvath & Forte, 2011, p. 38). Critical System Thinking was the first emergence of critical thinking as a theory which “deals with what might be the critical literacy required to be a competent practitioner in supporting real-world decision-making” (Horvath & Forte, 2011, p. 40). This critical system thinking can be broken down into three steps: understanding, practice, and responsibility. As part of understanding students will need to recognize relationships between complex situations, practice constricting persecutes associated with the complex situation, and responsibility is the ethical issues and power relationships in complex situations. (Horvath & Forte, 2011). Other contributors to the how system thinking became critical thinking was in the 1940s and 1950s due to military logistic generated during World War Two with the emergence of systems science. During this time, there
was a switch to focus on renovating education and expanding it and critical thinking made its way into the curriculum. There were teams that would analyze various variables and a group would come to a common objective (Horvath & Forte, 2011). This technique was insightful and was kept.

Education research activities showed that critical thinking is significantly anchored within curricula and related teaching goals taxonomies, but that it is not supported and taught systematically in daily instructions (Patry, 1996). This means although it is important to teach critical thinking, there are textbooks created to take teachers through the process of giving students these skills. The issues are this books are tools to assist teaching and are not providing the technique or effective strategies for critical thinking. Critical thinking can be applied to the university through various subject’s math and science where it is important to analyze chart and reach conclusions through the information gathered. Although many people might not see it numbers and data be a type of literature that needs to be interpreted. In the study of her students Karson discovered the best strategy to teach her students is to allow them to teach each other through Shakespearean literature. The method behind her conclusion was to allow students to find their own answers through group work and make their own interpretations of the content given to them, “critical thinking contextualizes propositions, it helps the thinker consider when a proposition is true or false” (Karson & Goodwin, 2010, p. 303). She came up with a set of key questions to use as guidelines for her students.

Key Questions to teach students to ask and answer:

1. “What is the statement assert? What is asserted by implication?
2. What constitutes evidence for or against the proposition?
3. What is the evidence for the propositions? What is the evidence against it?
4. What other explanation might there be for the evidence?

5. To which circumstances currently of interest like the circumstances to which the propositions apply?

6. What motives might the proponent of the proposition have besides validity?” (Karson & Goodwin, 2010, p. 304)

Literature can tie into critical thinking as students learn to develop answer discussion questions to understand the purpose of the author’s writing. As students dissect a text they are required to analyze individual words and scenarios the author uses. There is always a secondary meaning to an author's work but based note schema, a student brings to the literature the work will resonate with them in different ways. There is no right or wrong way to interpret literature if a student can create a solid argument with evidence found in. Isaacson (2013) suggests that instead of giving students a presentation on the literature, teachers give them the piece of literature and have them teach each other. This will allow students to collaborate and come up with their own interpretation since this holds students responsible for their own learning and using the critical thinking to make a compelling argument as to why their interpretation is correct. This technique is not focused on the result but rather the process.

With literature, school teachers do not provide reading material that high school students want to read. Literature is easily adaptable to their students, it includes: novels, poems, music, data, newspaper, and magazines. With this you can use the right literature that fits the needs or like of your students. When the literature appeals to the students, they are more likely to read the text and be engaged in discussion allows for a more Socratic seminar conversation. The want to know more will create a curious mind that will attempt to gather more from the words given to them. It was found that “many teachers have never had college courses work or professional
development in teaching reading/literacy” (Sargent et al. 2018, p. 5). Even prior to being in the classroom teachers are failing to teach their students the tools they will need to succeed.

There have been counter argument to critical thinking, Levi (1992) suggests that critical thinking limits the potential of argument, because one will be stuck in their own perspective. Critical thinking allows for an idea to be create through analyzation and observations, if a country arguments comes along there can be hesitation. Although students hear the term critical thinking and know what it is, so they are unable to fully apply it themselves due to teachers defining critical thinking differently. Huang (2008) addresses the argument that critical thinking may be a cultural practice rather than universal application. The United States is an individualized country, so when critical thinking is taught in an American school it is accepted by students. Student who do come from countries whom are not so individualized may not be able to adapt to our way of thinking and find it as a culture shock.

**Methods and Procedures**

I set on to find my own information and see if the information I gathered matched my literature review. The population for my study was college students (Appendix B) that have graduated from high school in the last four years. I also set up a secondary survey that was distributed to teachers (Appendix A) I pooled from this group to see their opinions in what they believe critical thinking to be and how they have obtained it through literature. My survey also discusses how they use critical thinking. I also focused on this group to see if this skill has helped them in their professional development. I received 16 responses to my survey. My other population was active teachers although for this survey I only received 3 responses which brought limitation to my data. My method of obtaining surveys was done through social media and emailing students and teachers. There was a limited response to the survey but there were
still similarities in the responses to support my primary and secondary research questions. The material used in my research study surveyed monkey as it holds all the responses together and it’s an easy median to share and get out. The program grouped the responses by responses so I can compare the knowledge of those polled. My additional resources were using the CSUMB library to find peer-reviewed articles on the topic of critical thinking. Then, I continued to look for research on how teachers use skills to enhance their critical thinking skills.

I have attached the questions that were involved in the surveys, in reviewing the responses for Appendix B, I discovered the answers to be inconclusive. About half the students feel reading did not help them in school while the other half did. A more effective method of data collection would have been to use a singular group of students at one school to ensure they were all getting the same education and be able to verify whether or not the teacher was teaching critical thinking.

While answering, my primary reaches question I was critiquing whether there is a strong curriculum in place for the teacher to follow to enhance their student's critical thinking skills. This approach helped me answer my reach question because I got a first-person response to how they are implementing critical thinking and what they believe the benefits of the topic area. Through my research, I began to raise more question than find answers. While many would agree that critical thinking helps is an important skill to obtain there are limited research and suggestions on how teachers are to enhancing the skills of their students. My original purpose for my method was to collect active data and create a collection of skills that are working for teachers. I wanted to take these techniques and incorporate then to my paper and offer it as a recommendation. Unfortunately, due to the lack or Reponses this was not possible. I feel these instruments did not assist meant and I would have had better success if I were to have gone in
person and did interview. Interviews would have allowed me to get more in-depth responses from teachers and possibly see any assignment they might have for me to analyze.

My capstone research paper started as a quantitative method with the surveys to get as many responses to find consist any and patterns in the research. Yet it then turned to a qualitative paper after gathering the data and finding a way to teach a teacher to enhance critical thinking skills in high school’s students.

Results and Discussion

My primary research question was answered by 3 teachers who took my survey. Teacher A, Teacher B, and Teacher C. Teacher A responded by saying literature should be taken apart and examine the individual parts. The purpose of this is to see how the individual parts function together as a whole. This can be applied to science research and math to see how a person would come up to their answer or conclusion and why their strategies best fit the situation. Teacher B responded daily real-world observations and either analysis of a stranger’s character due to their appearance recognizing the hypothetical nature and supposed inner observations that could be gleaned from this exercise. This is an application to history and how to study the minds of people whom are no longer alive to interview. History is just an interpretation of the evidence and finding the most convincing supportive argument. This can change if new data emerges. Teacher C responded annotation is questioned as the wisest strategy, but specifically in short excerpts, no longer texts. They also suggested that oral discussion is important, as well as writing it is through the discussion that students get to exchange ideas and view other ideas. These techniques allow for open communication from this gathering the teacher’s response that observation and analyzation is the key to enhancing critical thinking. These teacher’s suggestions observation either through repellent, interpretation, or literature related due to the versatility of critical
thinking the enhancement might be more particular to the core subject. When it comes to literature the teachers agreed that literature is adaptive to students. When there is no correct answer or a complex one student must sit down and use their prior knowledge to disgust the text placed in front of them. They will go back to what they reach and maybe what they know about the author to come up with a conclusion to their interpretation. The notion of challenging knowledge is what creates a sophisticated form of thinking and enhancing critical thinking. All the teachers would agree in allowing the student to read a book they want. This is due to the goal being to get a student to read in general when it comes to novels. This answers my question if they place any restrictions on the books their students read in the classroom.

For my secondary research questions: Is there a curriculum in place for literature to enhance high school students’ critical thinking skills? If there are, what strategies are teachers using to enhance their students’ critical thinking skills? Are there resources available for teachers if they want to implement teaching strategies that enhance their high school students’ critical thinking skills?

I did not find a curriculum design to addresses critical thinking although I did find different book resources that advocate for critical thinking and offers suggestions as critical thinking can be placed in all course subjects. These works book are designed as tools but not actual guidance and there is lack of efficient data to prove how to teach this technique. The books I did find were specific to children but the skills of critical thinking never change therefore the suggestion can be adapt to adolescents.

As for the response in my surveys for students my main object was to see if they knew what critical thinking was. Most students had an idea of what is was. Responses overall were using data and analyzation to making educated guesses. They continued to emphasis that critical
thinking it meant to challenge the perspective someone might have. This means one must defend their argument or be open to external ideas. From the survey 12 out of 16 students responded they do not read literature that is not related to schooling. This can hinder someone ability to analyze because they are not practice or strengthening their minds.

I believe the data suggested that critical thinking is an important skill to have but I believe there is not a set curriculum in place to assist teachers to teach this skill to their students. This can suggest a lack of preparation in secondary level of education. If a teacher cannot properly teach critical thinking, this might suggest that their preparation for the field was not well rounded. Teachers are given the skills of how to teach the specific subjects and are encouraged to adapt to the students but what fails is teachers learning secondary goal in their teaching. By this, I mean they think critical thinking might not be the main objective of the lesson. It could be a secondary one. This does not come directly from the research I found, but the lack of research I found.

There were a variety of articles that support critical thinking and its presentation in everyday life yet there was the lack of getting there. The close-set I can be an article written by an English professor and her proposal of key question to ask when dissecting a text to find a deeper understanding.

I do not believe the data gathered answer my question but raises more question for further investigation. I can present a project to me on how to get a solution for my question. This will require in-class observation to teachers that currently create their own lesson on critical thinking and track which strategies work the best with students. For future research, I want to create a solid curriculum that can answer my research question on how literature is the key complement for enhancing critical thinking. The current data although intensive on critical thinking does not
aid teachers. Researchers are hopefully digging into his concept more and will be able to come up with the way to assist teachers in their classrooms. This led to problems and limitations in my research.

**Problems and Limitations**

The issues I found with getting the answer to my research question is finding a study the focus on developing critical thinking through literature and specifically at the high school age. I found some articles that mention literature in younger students such as elementary but there was limited at the adolescent level. I had to gather data that drew near the lines of my topic and use it to infer a potential solution to my research question. Many researchers agreed about the importance of critical thinking but there was little mention of how it can be implemented at the high school level. I also discovered the lack of preparation for teachers so I was not able to answer my primary research question which is turn also affect my secondary research question which are meant to growth off my first question. Some limitation I face was the lack of in-depth responses to my interviews which gave me limited data for me to analyze and I would have had to have three teachers represent the American population. A secondary problem was 30 teachers I sent out the survey so I got a response from 3 people. Although their answers supported my topic the lack of replies were not enough to come to the conclusive solution to my research question. The data I gathered from the student were very singular one sentence response. Out of the 100 students who the survey was sent out it 16 of those student’s response to the messages. While answers were similar the answers were not supportive my secondary research question how freedom of choice might affect or help critical thinking would grow. Most students concluded that they knew what critical thinking was but there were limits to connecting critical thinking to literature. This caused my main research to be peer reviewed article.
**Recommendation**

My recommendation is to create a research group whose focused-on teaching critical thinking at an adolescent stage and how the development at this age requires a different approach to teach these kids. There needs to be a curriculum developed on how to teach critical thinking it does not have to be a universal method but a plan that can be adaptive to includes all level of student learning levels. There need to be more student involvement in their learning, the teacher needs to begin to speak less and allow the student to talk more so they can read and come up with their own conclusion to item they are reading. A second skill is to not attempt to fit as much context in a lesson what will just give them an overboard of information and they will be able to process it. With the connection to literature, students should be allowed to choose what they read. If students learn to enjoy reading and seek out the literature themselves, they are expanding their minds. College course require dense and long reading materials. Its importance to get this habit impeded into students. Increase improvement in other subjects other than English can see a direct response “reading is actually linked to increased cognitive progress over time” (Appleman and Hitman, 2017. p. 173). Students are developing their braining when reading.

**Conclusion**

My key research question was on implementing teaching strategies to enhance critical thinking through literature in high school students. My question was partially answer as I would able to prove my own recommendation which connect to my primary research question. There was no conclusive data to affirm the question I was searching for. I also focused on why this should be important at the high school level as they are preparing their way to universities where they will master this technique and take it out into the workforce. High school students ask had
the capability of analyzation and skill in which I was searching for, these students are also a few short years away from universities and they are meant to take the skill of critical thinking and use it in their major. By this I mean as the teacher is teaching the content they are learning try are going to have to figure out how to use that content outside in the work field.

The relaying issue is that teachers are not master at critical thinking and with every changing education system there is no consistency to grow. Teachers are trying to teach themselves the standard and curriculum so they have no time to go in-depth in what they teach and reflect for next year when they teach the same content again. There were components of critical thinking that can be taught but most evident seem to point to practice to master critical thinking. Critical thinking consists of analyzation, interpretation, creating an argument, and finding supportive evidence for that argument.
References


Appendixes

Appendix A

Teacher Survey

1. What is critical thinking?
2. Why is critical thinking important?
3. What strategies do you use to enhance critical thinking?
4. Do you believe literature is important in enhancing critical thinking? If yes, how do you decide which pieces of literature make it to the classroom?
5. What restrictions do you have on your students with the books they select to read?
6. How do you test or track students’ improvement in critical thinking?
7. How do students benefit from critical thinking?
Appendix B

Student Survey

1. What is critical thinking?
2. Why is critical thinking important?
3. What strategies do you use to enhance critical thinking?
4. How do you use critical thinking?
5. Has literature affected the way you view the outside world?
6. How often do you read a non-school assigned book?