
The Research Skills Learning Gap: What Is It, and How Can It Be Fixed?

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Introduction

The learning gap, also referred to as the achievement gap, has been a topic of study for years. Why do students of different race, financial status, and background perform better in their studies than others? Through what methods do we fix this gap in performance and achievement in school? The leaders of our countries have been working through the issue for years. In 1960, President Johnson concentrated on the "inequities in the educational achievement of economically disadvantaged students" (Guskey 8). Guskey also refers to the No Child Left Behind Act (2002). The NCLB Act makes steps in closing the achievement gap by requiring schools to report gaps in various subgroups. Furthermore, Paul Loesch highlights four strategies for implementing the different methodologies used in schools. The study done by Huang further sheds light on the socioeconomic status-based learning gap, revealing that individual students that increase their learning time can positively affect their learning, but cannot make a difference in the gap as whole. Also, Terry, et al. conducted a study to determine whether there is a learning gap between students who have strong prerequisite skills and the students who have weak prerequisite skills. Even though these sources do provide information on how different learning gaps are created, or a general strategy to close these gaps, through consistent research on the topic, more research can be done on learning gaps in English classes throughout the different levels of education. More specifically, I have noticed that there could be more research on the transition from high school English classes to college English classes, and, from my own personal experience of the transition, there is a significant difference in structure, goals, and expectations. This led to my curiosity of conducting research on the topic in order to see if these observations are prevalent in other students, further leading me to the question of whether or not there is a learning gap between the transition from a high school English to a college English class, and if indeed there is a gap, how can this gap possibly be fixed using the strategies suggested by Guskey, Loesch, Huang, Rivera, and other sources.

My method of study was to conduct a survey within a group of students in two ENC 1102 classes who would be questioned on their previous high school English class and how it compares to their current ENC 1102 class. Through this study, I learned of the different literate activities done by students in their highest-level English class in high school, and am able to compare these activities with the current college English literate activities. Also, I learned how prepared a student felt for ENC 1102, based on their high school English class. I primarily analyzed how the literate activities and expectations of each class were related with the types of literate activities the students participated in their high school class. My findings concluded that there is indeed a learning gap between high school English classes and college-level English classes. More

specifically, there is a gap in the research skills of students who felt unprepared for ENC 1102 and who were struggling in the class. This supports previous research done by Miller and Lambert on the comparison of difference in competencies and skills between high school students, undergraduate students, and graduate students. Focusing on research skills, their study concluded that graduate alumni were most proficient with research skills while high school students and undergraduate students were significantly less proficient, according to the conclusions of their study. This article will show my methods of research, specific data collected from the surveys, how the different methods and strategies from different sources can be used to correct this learning gap, and a conclusion that opens the topic of the learning gap for further discussion.

Methods

I conducted a survey that would be given to my two ENC 1102 classes, both taught by Professor Al-Harastani. This survey gave me information on the various English courses taken previously by the students in these two classes, as well as the different literate activities they participated in, so that I am able to compare these classes and their activities with each other as well as with ENC 1102 and its own literate activities. The survey contained several questions, such as which classes participants took, the different literate activities they participated in, and how prepared they feel going into ENC 1102 from their own high school English class (the full list of survey questions are included in Appendix A).

I thought a survey would be the best method in getting the necessary data because it allowed me to ask several questions in a convenient and efficient way. In addition, I chose two ENC 1102 classes that are taught by the same professor as opposed to choosing classes taught by different professors, since a different professor might have different requirements and literate activities that are assigned, even though they are used to accomplish a common course goal. Furthermore, the survey was anonymous, because I felt that this would give me the least biased and most accurate set of data to work with, as a student would be less likely to embellish their answers about where they stood in their previous English classes and where they stand currently with ENC 1102.

After collecting the data, I categorized the thirty-five surveys into four sections. One with all English Language classes (19), one with all English Literature classes (7), one that contained students who stated that they took both classes (4), and one that has a class that can't be distinguished as a Language or Literature class (5). An example of this would be English Honors or dual enrollment classes. I looked for trends in the data involving the various literate activities, the expectations for each respective class, and how prepared the students felt for a college-level English class. By finding trends in a smaller array of data, I was then able to cross-reference the different categories and trends in order to find one underlying trend among the whole array of data collected.

Survey Findings

In this section I will show the findings related to literate activities, preparedness, and trends within each category highlighted in the "Methods" section above to show how I came to the conclusion that there is a learning gap in between high school English and college-level English.

English Literature

The first section of the data I analyzed was English Literature. There were 19 people who stated that their highest-level English class in high school was some type of English Literature class. This was also the most common type of all the classes taken. I further categorized this group into subcategories of the type of class they took. Three different subcategories developed: IB English

Literature with four students, AP English Literature with fourteen students, and AICE English Literature with only one student.

Across the four students who had taken an IB English Literature class, there seemed to be common literate activities taken among all four students, which were readings and essays. More specifically, three out of the four students highlighted both novels and poems as the types of reading they accomplished while just one stated that only poems were used. Three out of the four students who took IB English Literature stated that they had participated in discussions. Three of the students who had taken higher-level IB English had participated in research papers. Students generally stated that the goal of the class was to break down and analyze different texts and literary works. Three out of the four students who took IB English Literature said they felt they were prepared for ENC 1102. One student stated that they felt “somewhat prepared” for a college English class; however this student took IB English standard-level while the other three took higher-level English.

AP English Literature

According to the survey, AP Literature students had participated in readings and essays, and thirteen out of the fourteen students had participated in readings, essays, and discussions. Other literary activities were more scattered in terms of which students participated in which activities. Also only four of this fourteen had participated in research papers while in this class. Students generally stated that the goal of AP Literature was to prepare them for the AP exam, and similarly to IB Literature the students had to analyze and break down a variety of different readings and texts. In terms of how much a student was prepared for ENC 1102, half of the students said that they were fully prepared for ENC 1102, while the other half said that they weren’t prepared or were somewhat prepared.

English Language

The second section of the data I analyzed was English Language, which had a total of seven students who took this class. This number was significantly less than English Literature, which came to me as surprising because in my own high school experience students were required to take English Language before English Literature so I thought the number of students that took English Language would be higher. In regards to literate activities, all students had participated in discussions, readings, and essays in their respective classes. Novels and poems were the main types of reading the students did. Also, five out of the seven students stated they had research papers assigned to them. Overall, all of the students surveyed stated they felt prepared for ENC 1102, even though two students said that they find ENC 1102 more difficult than AP Language while the other five stated that AP Language was more difficult.

Both Language and Literature

There were a few students who took both a high-level Language class and a high-level Literature Class. Three out of four students took AP in both classes while one took AICE in English Language. This set of students all participated in discussions, readings, and essays. Novels were the most common type of reading done. Two of them had done outlines and three out of the four had done research papers in their classes. The expectations of these literature and language classes are similar to the ones stated previously: to prepare for the AP exams as well as to analyze different literature works and improve their writing skills. Most importantly, three out of the four students stated that they felt prepared for ENC 1102, while one said they did not.

Other English Classes

The last section of surveys contained students who took an English class that could not be

defined as a Literature or Language course. English honors, dual enrollment classes, and even Russian Literature and Composition were the type of classes taken in this section. The literate activities in these classes varied more than the others, as the classes taken were each different from each other. But readings and essays were both common among all the students. Also, all students had experience in research papers, but only two out of the five students clearly stated that they felt unprepared going into ENC 1102 while one stated that, if they had not taken ENC 1101, then they would be completely lost in ENC 1102. One student said they felt completely prepared for ENC 1102, as they had taken dual enrollment English in high school, while another did not specify.

Summary

By analyzing the data presented above from all of the different English classes, I am able to state that there is a learning gap present between high school English and college-level English that some students need to overcome. Furthermore, there seemed to be a correlation with the “unpreparedness” a student felt with their experience in research papers. For students who took IB English literature, 75% felt they were completely prepared for ENC 1102, while in AP English

I can conclude that a student who has had no or minimal participation in research papers in high school is more likely to have to overcome a learning gap when transitioning from a high school English course to a college-level English course.

Literature, 50% of the students said they felt prepared. All the “prepared” students that took IB had experience in conducting research, while in AP classes most students who didn’t feel prepared did not have research experience. In fact, only one student out of the three who had research paper experience stated they did not feel prepared. In English Language, all of the students felt they were prepared for ENC 1102, and five out of these seven students had done research papers in their high school classes. Two of the students, one who had stated they had participated in research papers and one that had not, both stated that ENC 1102 required more research skills that they were not well-acquainted with in high school. In regards to students who did both, three out of the four students who were well-prepared for the class had done research papers in high school.

The final section was students who took other classes that did not specify whether it was language or literature. Once again, by looking at the association between research papers and preparedness, every student participated in research papers from this group but only the ones that took some type of dual enrollment course felt prepared for ENC 1102. This could indicate that even though research papers are reviewed and essentially taught in these classes, these students still feel unprepared possibly due to how well the material is taught. This goes against the trend found in the literature and language classes, suggesting more research needs to be done for this specific situation.

From my primary research, I can conclude that a student who has had no or minimal participation in research papers in high school is more likely to have to overcome a learning gap when transitioning from a high school English course to a college-level English course.

Future Applications

The learning gap discovered through my primary research can be difficult to overcome by first-year college students that are thrust into a composition class that revolves around the process of research. Yes, ENC 1102 offers several readings based off of the research done by other people

with the goal of helping students grasp the concept of research. But knowing the process of research is different from actually conducting the research yourself that is related to your topic of study and research question. Referring back to the study done by Miller and Lambert, these authors asked the question, “How much did [your institution] help you acquire or develop each of the following skills and competencies?” (5). The results revealed that high school and undergraduate students “have significantly lower perceived development of research skills than graduate alumni” (Miller and Lambert 6). Graduate students should be more proficient with research skills as they have more experience with the topic, but the issue lies with the institution that the high school and undergraduate students attended. Based off of the question proposed by Miller and Lambert, the students felt their institution did not provide them with enough skills. This study directly provides support to my research. The learning gap in research skills in the transition from a high school English class to a college-level English class in first-year college students is an institutional issue, meaning that the educational institution needs to do more to give students the proper skills in order to perform better in research papers, concepts of undergraduate studies, and beyond. This is supported by Miller and Lambert through their statement, “Increasing research requirements for high school and undergraduate students may not only increase research skills, but may also give those students an advantage at success in graduate study, if they choose to pursue it” (8).

How can research skills be exposed to students more in high school before they attend college? Increasing the requirements as Miller and Lambert state is one method, but other studies have general methodologies for closing learning gaps that can be possibly applied to this specific gap.

Guskey writes on Benjamin Bloom and his study of the learning gap in the 1960s and how teachers have a strong influence in a student’s performance in school. Thus, Bloom came up with the idea of Mastery Learning. Mastery Learning involves the teacher organizing the skills into units that last about 1-2 weeks. Then, an assessment is given to see where the student stands with the lesson. The purpose is that this “helps students identify what they have learned well to that point and what they need to learn better” (Guskey 12). Since Mastery Learning focuses on two elements: the feedback and corrective process, and then the instructional alignment, we can apply this for research skills or other skills that students seem to have difficulty with. Teachers are able through the instructions of this concept to present research as a new concept that involves several classes of instructional time, meaning that the teacher lectures on what research is, how it can be used, and what steps are needed to complete research. After this, an assessment can be given to provide feedback to the student on what they learned. For research skills, the feedback assessment could be in the form of a task where the student needs to apply the process of research taught on a simple and small topic of interest to the student. The corrective activities would involve the teacher sitting down with the students who didn’t show proficiency and indicate their gaps in learning and close them through individual instruction. Lastly, the final evaluation can be a short research paper that fully applies the processes taught. Guskey states that research on the correct implication of Mastery Learning in classrooms does require teachers to change their instruction plan but has “exceptionally positive effects on student learning” (23).

Loesch’s Four Strategies for Implementing Change

Paul Loesch writes on the four different strategies schools can use to implement different methodologies to correct the learning gap. According to Loesch, the methods schools apply aren’t necessarily incorrect, but these methods do need to be applied correctly. The four strategies are: 1. Create a Plan, 2. Identify the Problem, 3. Define the goal and 4. Unite teachers behind a sense of purpose. These four steps are used to solve the problem of when a methodology is applied to fix a learning gap. There is always a learning curve for teachers and students when new methods are introduced which can turn into more problems and further confusion rather than correct the intended learning gap. These strategies won’t directly fix the learning gap in research skills in high

school students, but they are a crucial part in the process of correcting the gap. Schools first need to create a plan for implementing the new methodology and then identify the problem that is causing the learning gap. In this case, the issue is that when high school students begin their college education, the students that struggle in their college-level English class don't have the proficient research skills they need in order to succeed. This problem roots from English classes in high schools not providing students with the necessary research skills. This may be due to the lacking curriculum of the appropriate classes, or when research skills that are taught aren't being taught well enough. For example, the data I collected supports that the students who had taken English Language courses were more likely to be prepared for ENC 1102 rather than students who took English Literature courses. Yet, the surveys showed that students are taking English Literature classes more than English Language classes. This could end up being the underlying issue in many high schools, but it is down to each respective school to analyze their own individual English classes to see where exactly the problem lies. Once the problem is broken down, only then is the school able to define a goal they want to reach. This goal, according to Loesch, needs to be clear and reachable in a year's time. Schools may want to make a research skills unit for all English classes, and the goal of this can be for all English classes to have a 1-2 week instructing time on this subject per year. Alternatively, a school's goal may be for students to complete two extensive research papers for their respective English classes in one year. The goal is crucial and it is important for everyone to understand what it is that is being achieved. Lastly, the teachers need to be united behind a sense of purpose. Loesch states that this is the most essential step, and I personally agree. Teachers need to be committed to the cause, to understand their role in a student's educational career. Research skills are crucial for students to learn and grasp, and teachers should be told that this might not only drastically impact their high school careers, but more importantly their educational careers and work careers that go beyond high school as well.

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Other Research

Through my research on the different methods suggested by sources to correct the learning gap, I have learned that not all the methods and data offered by various studies and articles can be applied to my own research on learning gaps. Rivera wrote an article on solutions to the achievement gap based off research she had done on various statements by teachers and educational leaders. She suggested that the learning gap issue roots from socioeconomic issues as well as parents taking their students to the most convenient schools for them, which might be an underperforming school. Regarding the learning in gap in research skills, it is difficult to find a connection between the socioeconomic status and individual research skills of a student, as there is not enough research done on the topic. Also, the idea that parents may be sending their students to the most convenient but underperforming schools cannot be applied to my research. Even though the survey did not ask what school the students attended, the fact that the survey was done at a university that has a national reputation, and that there was enough of a diversity among the students surveyed, I can conclude that her statement does not relate to the research skills learning gap in correspondence with the research I conducted.

Other research done by Huang concludes that students who spend more time studying will do better in school, even if they are of a poor socioeconomic status, but these individual students

cannot fix the whole learning gap. My research on the gap in research skills can be somewhat related to Huang's research, as there is a possibility that if students spend more time working on research, then they will yield better results. However, as Huang stated, these individual students cannot close the learning gap as a whole by themselves. This means that there needs to be support from schools and teachers to correct the gap. Another study that proved to be valuable to my research tested for whether there is a learning gap between students with strong prerequisite skills and ones with weak prerequisite skills. The study concluded that there is indeed a gap and that students with strong skills will do better in future classes that involve those skills (Terry, et al.). This research can prove to be valuable for inquiries into various learning gaps, especially for my primary research. If students are able to take English classes in high school that teach the research process, and the students gain strong prerequisite skills, then in their college English classes they will be more likely to perform better, according to the statements provided by this study.

Discussion

The primary research I conducted reveals a learning gap in students that are in the transition of going from a high school English class to a college English class. The study revealed that students that find they were unprepared for college-level English often seem to not have the research experience or a proficiency of research skills taught in their high school classes. In addition, the study raises the question of whether English Literature is being focused on too much in high schools. Students who had taken English Language felt more prepared than students who taken English Literature, revealing that there might have to be a change in focus and direction in high schools from English Literature to English Language. The research skills learning gap is an important issue that needs to be resolved so that more students feel prepared to conduct extensive research in college. Students need the necessary research skills not only for English classes such as ENC 1102 that are based on conducting extensive research, but also for other classes further in their educational careers. For example, the sciences are a field of subjects where research skills are often needed to learn, discover, and create. Furthermore, research skills could be necessary in many jobs and fields that students are interested in joining. The ability to conduct research is a crucial skill in today's society, and research shows that we as students are not getting the appropriate exposure to the process in high school before moving on to college. Therefore, the secondary research I conducted was to provide solutions and support to my primary research so that this learning gap in research skills can be corrected in the future. Methods such as Bloom's Mastery Learning, Loesch's strategies for change, the studies conducted by Huang and Terry, et al. and even the popular article by Rivera are all valuable research that can be used to enhance one's understanding of the gap, and in the future, could be used to correct it. I hope that my own research on the topic is able to join the conversation and add valuable information to the issue. Furthermore, I hope that my research on the learning gap of students transitioning from high school English classes to college-level English classes brings more attention to the nationwide issue of the learning gap.

Conclusions

The various studies on the learning gap that I chose to present in this paper were the ones I thought had the best information and methods that can be used to correct the research skills learning gap. Bloom's Mastery Learning and Loesch's strategies for change are both great ideas and concepts that can be applied to the research skills learning gap. By analyzing these sources based off of other research I conducted, I can conclude that these two sources are the ones that are most applicable and valuable to correcting the research skills learning gap. Both Bloom and Loesch's methods and ideas are flexible so that they can be applied to various learning gaps, and

furthermore provide schools with structured, organized and specific plans and/or strategies to work with.

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APPENDIX A: Survey

1. What is the highest level English Class you took in high school? This can be a language class, literature class or any other English class that you took. (i.e IB English Literature, AP English Language)

2. What were some of the literate activities that were assigned or you participated in while in this class?

- Discussions
- Research Papers
- Outlines
- Daily/Weekly Journals
- Readings(Novels, poems, etc)
-Please list the type of reading:

- Essays

Other:

3. What was the goal of this class? Do you find this class more difficult than ENC 1102 based on the literate activities you listed? (A sentence or two please.)

4. How prepared did you feel going into this class? Are there any skills or concepts that were used or asked of you in ENC 1102 that were not in your high school English class? Which class did you enjoy more?