To: Dr. Erika Paterson, Instructor ENGL 301 Technical Writing UBC
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Subject: Proposal for Improving Ridership Efficiency on the Bus Route 49 to UBC, as part of TransLink Metro Vancouver

**Introduction**

The Metro Vancouver Transportation Authority, TransLink, has been providing its services for many years through operations that include the subsidiary Coast Mountain Bus Company. For many years, the company has provided a valuable service to students as a direct route to the University of British Columbia (UBC) and many other institutions. However, there have been reports of increased wait times and boarding complications attributed to the major bus route 49 to UBC. With the uncertainty of the current [COVID-19](https://en.wikipedia.org/wiki/COVID-19) complications, the inefficiency seen in the ridership quality will be expected to continue indefinitely.

In the case that customers end up missing their bus, the number of riders waiting to board a bus gradually builds up. These factors contribute to the continuous cycle of the inefficiency seen in ridership quality and resultingly lead to alternative sources of transportation. TransLink is the main provider for transportation to students over the lower mainland of Vancouver. They oversee all operations and have the ability to improve efficiency on bus route 49 by acting on recommendations.

**Statement of Problem**

Passengers are precautious with the current COVID-19 situation in ways where they try to avoid close contact with others. This leaves riders hesitant in moving toward the back of the bus or in situations where they have to stand close to other riders. This causes drivers to mistakenly believe that the bus is at full capacity and leads to waiting customers getting passed at bus stops. The following buses attempt to accommodate by trying to pick up these waiting passengers. The following buses then get filled with passengers and will be unable to pick up any further customers. As a result, this continues to leave passengers further down the route waiting for an indefinite period of time. This is a concern as many of the riders include students that rely on this bus route. They end up falling behind on their schedule and cause students to make negative remarks on the outlook of the company. Furthermore, these students may try to accommodate for these delays by having to depart earlier and evidently waste even more of their time than necessary.

**Proposed Solution**

One possible solution to the inefficiency seen in bus route 49 is to switch the current boarding system to match another bus route that expects greater ridership numbers as part of their route. There are two major bus routes, R4 and 99, that revolve around a heavy volume of passengers. These routes reduce wait times via a boarding system that utilizes all doors of a bus. Bus route 49 currently uses a single front door boarding system. Sharing this implementation with bus route 49 could lead to a more efficient ridership quality.

**Scope**

To assess the possibility of improving ridership efficiency as part of bus route 49 to UBC, I plan to pursue research in the following areas of inquiry:

1. When are the hours of operations with the greatest influx of ridership seen on this route?
2. Would optimization of boarding access on bus route 49 be enough to service passengers with greater efficiency?
3. What are the costs of implementing changes to the current bus route system?
4. What other bus routes share a similar problem as the bus route 49, and what are their solutions in increasing efficiency?
5. What is the current boarding protocol for a driver of any bus route, and how do the current COVID-19 restrictions change this protocol?
6. What is the average travel time on this route to UBC, and how much time could be saved for the passengers of this bus route?
7. What are some other notable potential solutions to reducing travel times to UBC?

**Methods**

My primary method of data collection will include a consultation with a current employee of bus route 49. I will also aim to survey passengers of the route and understand the complications they may have with this route. I intend to discuss these concerns reported by riders and portray areas of improvement to the TransLink Board of Directors, Senior Executive Team. Furthermore, I will also inspect ride quality and observe travel time at various peak hours of operation to take the varying conditions into consideration. Lastly, I will pair my findings with a literature review of publicly available data and secondary research sources.

**My Qualifications**

I have been a fellow passenger of the bus route 49 for over 5 years and am aware of the many issues at hand. I am familiar with the route as a current student attending UBC which also gives me firsthand exposure to the entire bus route.

**Conclusion**

Ridership quality and efficiency are of great concern, especially among students who cannot afford to accept the consequences of arriving late to exams. By conducting comprehensive research in the areas of inquiry, I aim to determine if the ridership efficiency on bus route 49 can be improved to benefit the passengers. With the approval of this project, I hope to begin a thorough review and investigate potential recommendations.