

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

White Paper: Barriers to Top Hat

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## INTRODUCTION

In Sociology 2120: Technology and Society, Top Hat was the chosen interactive platform. While this tool allowed students to participate electronically in class discussions, it also created some critical barriers to effective learning, resulting in large potential of diminished instructional opportunities. Highlighted below are some of the main barriers and recommendations of how to rectify these issues and create a productive learning environment.

### **Barrier - Anxiety**

Many students indicated that posting their answers or ideas on the board for the class to see made them very anxious about participating. We have explored various degrees of anonymity in how students' responses are viewed.

Recommendation for Top Hat: Have various levels of anonymity to allow students to select if they want their name, alias, or simply *anonymous* to be displayed along with their response. Coupled with this, a feature would be required to allow the professor to view and approve comments prior to posting.

### **Barrier - Wireless Internet Connection**

If a student cannot maintain a consistent wireless connection to Top Hat, they not only lose participation points, but also miss out on the lesson being taught as well as distance themselves from the classroom environment.

Recommendation for the administration: With the increasing amount of technological reliance in courses at MUN, correcting the connectivity issues in the wireless internet is critical.

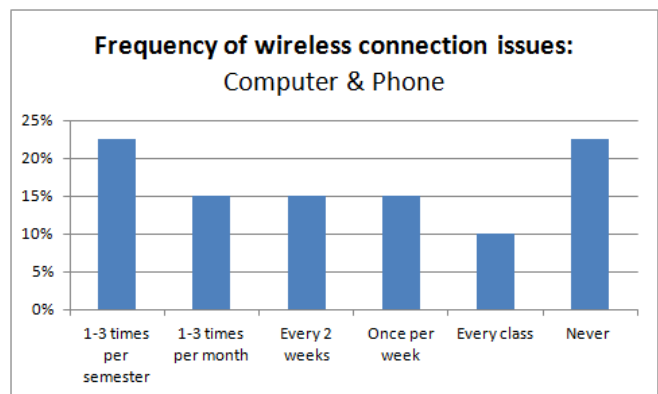
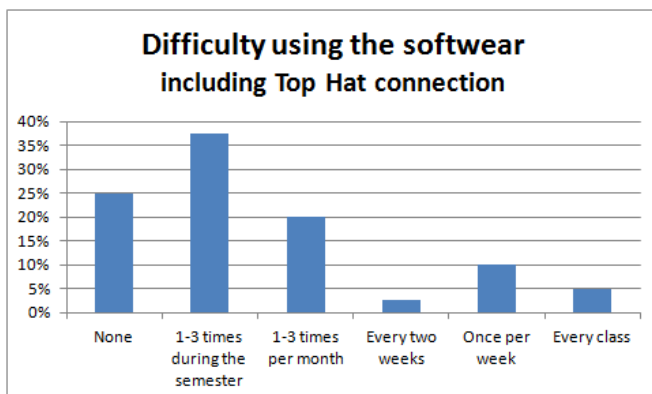
### **Barrier - Connectivity**

Students were faced with issues by: not being able to download Top Hat properly, creating a student profile under the correct class, and connecting their cellular devices to their account.

Recommendation for Top Hat: Create a comprehensive, step-by-step guide of how to create a profile and how to connect all devices to it.

For Professors: Ensure all students are connected and troubleshoot any problems prior to utilizing the application for course content.

For Administration: Connect with the MUN Bookstore to provide payment options for students to purchase Top Hat accounts who do not have access to a Visa/Master Card.



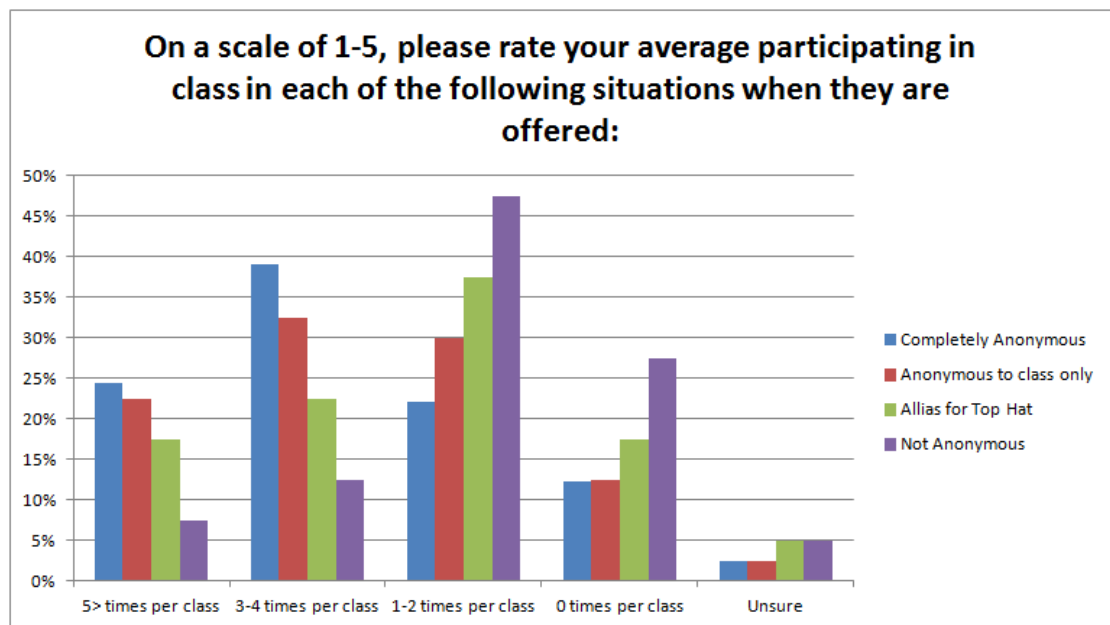
## Description of problems

The main barriers:

- Connectivity to the Top Hat platform
- Wireless connection at the University
- Anxiety to participate when there is no anonymity

## Anxiety

Using Top Hat as a learning platform in classes is a very effective way of getting more students to participate in discussion. In a study made by Butler University with 37-40 students, 84% said Top Hat helped them learn the material (P. Gjerde & Prescott, 2014). Students who were uncomfortable speaking in class prefer using Top Hat, especially when it is anonymous (Sociology 2120 Class, 2014).



## Top Hat

The problem of connectivity to Top Hat was mainly because the students were not informed properly on how to activate and use it. Many had problems logging in, texting answers and using the platform in general. In the same study I quoted earlier, the weaknesses reported by the student were a loss of time and technology issues (P. Gjerde & Prescott, 2014).

## Wi-Fi

The wireless was an issue since Memorial University's WIFI is very unreliable and weak (Howells, 2014, p.5). This creates problems in classrooms wanting to use interactive teaching methods. Students and teachers using laptops or computers have problems connecting to the wireless network making it hard to use technology in an effective way.

## Methodology

Our intent was to collect as much data as possible about the barriers that student's face while using classroom technology and methods for mitigating these barriers. In order to collect the necessary data, a survey was conducted among the students of SOCI 2120. Out of 51 students in the class, 40 participated in the survey, leaving an error margin of 21.6% (Sociology 2120 Class, 2014).

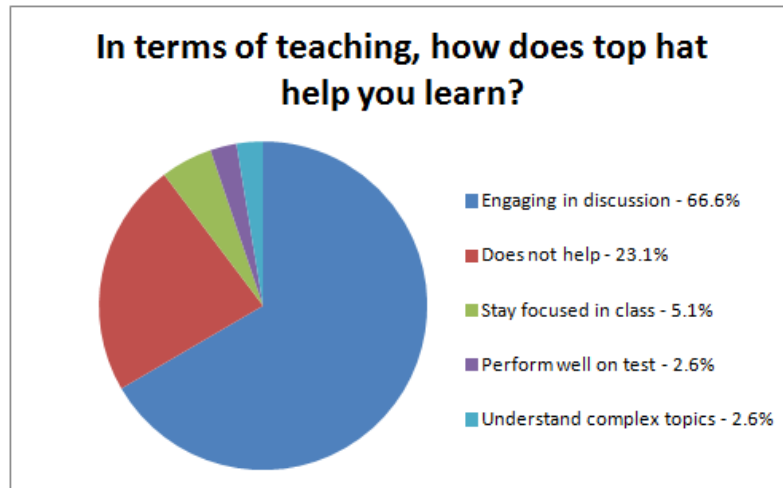
We asked questions about the student's experiences using Top Hat and other forms of technology in the classroom. Our questions were focused on discovering the kinds of difficulties students encountered using Top Hat and the frequency of which these problems occurred.

## Anxiety Barrier

### Issue

One of the main barriers that arose while searching for problems student's had with Top Hat was anxiety due to lack of anonymity (Sociology 2120 class, 2014). People are more willing to participate in the use of Top Hat if their names are not being displayed on the board or even to their professors.

In a survey conducted by IT World Canada, one of the main strengths of the learning platform was its ability to be totally anonymous. (Buckler, 2013) Once this anonymity was taken away, fewer students were willing to participate for fear of being wrong or having their answers and opinions displayed on the screen followed by their name. The use of Top Hat in the classroom is very beneficial, having a positive impact on 76.9% of the students. Of those students, 66.6% say it helps them be more engaged in the classroom discussion.



In a classroom where Top Hat was used, 37.5% of people said that it improved their level of participation when the platform was anonymous and allowed them to say what they truly thought. Twelve-and-a-half percent of people said it was more fun and interesting to participate via Top Hat (Sociology 2120 class, 2014).

### Recommendation

The one, obvious solution to the anxiety that is caused by the lack of discretion is to make the platform anonymous by default and restrict the professor's ability to change this. As this implementation has potential to lead to classroom disturbances and inappropriate things posted,

an effective recommendation would be to allow the website to stay totally anonymous to students and professors, but allow the instructor to contact Top Hat if a problem does arise (Therrien Coulombe, Malcolm, Ezekiel, Jenkins, 2014) or to have each comment screened by the professor prior to being displayed to the class. This would not only aid the professor in controlling what is getting shown on the screen, but also allow for a better flow of classroom discussion, without the additional comments always being added to disrupt the topic being discussed.

## **Wi-Fi Barrier**

### Issue

One of the main barriers that we discovered through the student's responses and outside sources was the poor wireless connectivity. Memorial University's wireless network is unable to meet the demands of students who rely on it for academic purposes. 22,000 students are connecting to the Wi-Fi, which is three times the amount that was connecting four years ago (Howells, 2014, p.5). The network was not designed to support this increase in usage and is well over capacity. The poor connection is not the only problem, as 30% of building areas on campus have no Wi-Fi at all (Howells, 2014, p.5).

Through the survey, we discovered that the students of SOCI 2120 reported frequent troubles with the Wi-Fi. Every week 15% of students had connectivity problems and 10% of students experienced problems every, single class<sup>1</sup>. Although this is not a large percentage, it still means that students are becoming discouraged and are unable to participate with the rest of their classmates. This is a particularly significant problem during quizzes that are done via Top Hat. Students with connectivity issues are unable to submit answers and therefore cannot complete quizzes. They prefer not to use up their cell phone data when Wi-Fi should be available to them, but when the connection is unavailable; they have no other choice (Sociology 2120 class, 2014).

### Recommendation

In order to eradicate this barrier, we recommend that the wireless network be expanded in order to accommodate the amount of students that connect each day and that the infrastructure is upgraded to ensure a strong connection. A faster and more reliable connection would prevent students from being excluded from classroom activities that involve using Wi-Fi and, therefore, encourage participation. Anxiety about the inability to connect to the Internet would also be reduced or eliminated, creating a better environment for students. We believe that a strong, wireless connection is a crucial tool for university students in 2014, and that implementing our recommendation would have a positive impact on the student's attitudes and education (Therrien Coulombe et al., 2014).

## **Top Hat Barrier**

### Issue

Having a confident and reliable internet connection will not matter in utilizing Top Hat if students cannot connect to their profile. A couple of students indicated that purchasing the account was a problem, either by not having access to a credit card or the Top Hat system not accepting theirs (Therrien Coulombe et al., 2014) (Sociology 2120 class, 2014).

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<sup>1</sup> Graphic 1, p.2.

Once a student gained access to Top Hat, numerous barriers arose:

- Connecting to the proper course code
- Connecting their cellular phone to ensure they could text their responses in, if an internet connection failed
- Knowing how to navigate around the platform

While 25% of the class indicated that connectivity was never an issue, 75% of the class was removed from a portion of interactive, learning time and 15% experienced difficulties on a weekly basis<sup>2</sup>.

### Recommendation

Only three people in the survey indicated that they experienced an economic barrier in purchasing Top Hat due to not having a credit card (Sociology 2120 class, 2014). It is possible there were more students in this situation that did not respond. We feel that it would be beneficial and convenient if we could purchase Top Hat codes at MUN's bookstore. A brief but clear manual provided upon purchase, would alleviate much of the confusion surrounding activating and initially navigating a student's profile. This is a critical step if the professor does not allocate instructional time on how to operate Top Hat.

One class should be designated to troubleshoot any issues students may initially come across prior to introducing course content. This will ensure all students are ready to use Top Hat to its full potential rather than miss content and class participation time trying to simply connect to the platform.

### **CONCLUSION**

Despite the barriers we have illustrated, utilizing Top Hat as an instructional platform has proven to be a positive tool in this course. Top Hat provided a different medium for class discussions that permitted individuals the freedom to voice their opinions without saying a word. While many of the barriers did affect a small margin of the class weekly, the overall opinion of Top Hat was positive. We agree with the recommendations made, Top Hat can be successfully implemented in many other classrooms as an effective, instructional tool.

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<sup>2</sup> Graphic 2, p.2.

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