

## Assignment One: Learning Evaluation Rubric

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ETEC 524: Learning Technologies: Selection, Design, and Application

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June 4, 2023

## Introduction

Our rubric is designed to help elementary teachers to select optimal LMS selections and implementation in the elementary classroom. In the age of digital interdependence, there is a growing demand at the elementary level for teachers to teach and learn through technology. We often use educational technology for documentations, students' reflections, formative and summative assessment, communication with students and families and inquiry/research projects. One of the purposes of integrating technology in the classroom is for students to see technology as more than a novelty and substitution of traditional learning and to develop technology literacy skills. Davies (2011) defines technology literacy as involving the learner's ability to activate higher order thinking (Bloom's taxonomy of cognitive outcome), which is to evaluate proper implementation and usage of technology in order to accomplish specific learning targets. Similarly Zaied (2007) suggests that educators need to consider the following questions when selecting appropriate learning technology: How can the learning technology be used to accelerate conventional learning? How can technology contribute to the acquisition of knowledge? How can we use technology to encourage higher standards of performance? When it comes to choosing appropriate LMS or platforms, it is important for teachers to make decisions based on a practical and research-based model that is easily understood, accommodates new developments in technology, and considers both educational and operational issues (Bates, 2014). For this reason, we have decided to use the Bates' SECTIONS model (2014) to evaluate our selected LMSs and analyze the functionalities of each platform. We have chosen to evaluate the following LMS platforms: myBlueprint, Microsoft Teams Classroom and Google Classroom.

## LMS Evaluation Rubric - SECTIONS Adaptation

Criteria		Not Yet Meeting Expectations (1)	Meeting Expectations (2)	Exceeding Expectations (3)
<b><u>Students</u></b>	Student Demographics	Only available in English. Suitable for an age range that would cover two grades.	Has a language selector with 2-4 languages. Suitable for all Intermediate or all Primary grades.	Has a language selector with 4+ languages. Suitable for all grades.
	Access	Available on one operating system. Internal LMS that is only available on the school network.	Available on 2-4 operating systems. Available online and accessible from home.	Available on 5+ operating systems. Available online and accessible from home.
	Adaptability	Not adaptable for different student learning styles.	Somewhat adaptable for different student learning styles.	Very adaptable for different student learning styles.
<b><u>Ease of use and reliability</u></b>	User Interface	User interface is confusing. Not customizable. Little accessibility features.	User interface is functional. Some customization options. Accessibility features are present.	User interface is intuitive. Many customization options. Many accessibility features are present.
	Reliability	Infrequent updates. Many bugs. Frequent outages. No technical support.	Monthly updates. Few bugs. Infrequent outages. Technical support available during business hours.	Bi-weekly updates. No bugs. No outages. 24/7 technical support.
<b><u>Costs</u></b>	Monetary	Expensive. Unpredictable costs. Hidden fees.	Reasonable subscription or fixed cost. No hidden fees.	Free
	Time	Multiple training sessions needed for staff and students. No self-service	Initial training session for staff and students needed. Follow-up training is	Initial training session for staff and students needed. No follow-up training

		documentation.	optional. Self-service documentation is present.	required. Self-service documentation is present.
	Environmental	No sustainability report available. No sustainability practices present.	Sustainability report available. Some sustainability practices are present.	Sustainability report available. Many sustainability practices are present.
<b>Teaching functions and media selection</b>	Course & Assignment Creation	Text-based only. Creating assignments is difficult. Little options to customize content per lesson.	Some multimedia functionality is available. Creating assignments is simple. Some options available to customize content per lesson.	Many multimedia functionalities are available and easy to implement. Creating assignments is simple. Many options available to customize per lesson.
	Assessment and Evaluation	No assessment or evaluation features.	Basic assessment and evaluation features. Little options available.	Assessment and evaluation features are customizable.
	Data Reporting	Data reporting and analytics are not available.	Some data reports are available. Only available for the current year.	Data reports are available and track student progress throughout all grades.
<b>Interaction</b>	Course Content & Learning Materials	Difficult to interact with course content.	Interaction with course content is possible. Not always clear how to interact.	Interaction with course content is simple and intuitive.
	Collaboration Tools	No collaboration tools.	Some collaboration tools.	Many collaboration tools.
	Assessment & Feedback Tools	No assessment and feedback functionality.	Assessment functionality is present. Little or no feedback functionality.	Assessment and feedback functionality is present.
<b>Organizational issues</b>	eLearning Readiness	Not compatible with the institution's current devices and infrastructure.	Compatible with the institution's current devices and infrastructure with some	Compatible with the institution's current devices and infrastructure with no

			restructuring.	restructuring.
<b><u>Networking</u></b>	Student Communication	No communication tools.	Can communicate with their teachers.	Can communicate with their peers and teachers. Can interact with each other.
	Parent Communication	No communication tools.	Can communicate with their child's teachers only.	Can communicate with their child's teachers and interact with their child's work.
<b><u>Security and privacy</u></b>	Data Protection	Data is not secured or backed up. Data is stored on a shared server.	Data is backed up daily. Some authentication factor is used. Data is stored on a shared server.	Data is backed up hourly. Strong authentication factors which comply with regulatory bodies. Data is stored on a server that is not shared.
	Cloud-based Information Storage Practices	All data is stored in a cloud server that is not located in the institution's country.	Student data is stored in a cloud server that is located in the institution's country. Non-sensitive data is stored in a cloud server that is not located in the institution's country.	All data is stored in a cloud server that is located in the institution's country.

## **LMS Analysis**

### **MyBlueprint**

MyBlueprint is organized in an e-portfolio format where students can record and reflect on their learning progress, explore areas of interest, and plan for goals. The product is suitable for young learners since it promotes multimodality, where students can express opinions using video, audio, texts, images, or other forms. Although the cost-free version limits some features, it is still reasonable for educators to consider using it since users can access it through different operating systems and devices.

One of the main limitations of the system is the exclusion of student collaboration. Although students can communicate with families and teachers by messaging or commenting to share ideas and receive feedback, it lacks tools for students to learn together cooperatively.

Another limitation of this platform is its unstable server. Based on my experience, when many students use the server simultaneously, it often shuts down or crashes, making the platform inaccessible for some time or even an entire day. Many of my colleagues complained about the slow or non-functioning server, which caused them inconvenience. However, in the past few years, efforts have been made to address concerns and improve stability. My students have also encountered various glitches while using the platform. The most common glitch on myBlueprint occurs when users click on the "go" button to post their artifacts, and it causes the website to freeze and become unresponsive. To resolve this issue, closing the browser and logging onto the platform again works. However, after returning to the student portfolio, we

sometimes find multiple posts of the same artifact. Additionally, there have been instances where students lose their postings entirely, forcing them to retype their paragraphs. To reduce the risk of losing work, I started instructing students to type their content in Word and then copy and paste it onto myBlueprint. Additional effort and regular updates are required to prevent these glitches and enhance the server quality.

Another challenge in implementing this LMS would be teacher training. Although many teachers in my district were forced to learn to use myBlueprint during our remote teaching years, further education is required to use this platform effectively. Each school typically has myBlueprint leaders who attend workshops organized by the district, promoting the use of myBlueprint. However, it is entirely up to the leaders of each school whether they actively promote and encourage the entire staff to use this platform. To address this issue, more professional development workshops focused on e-portfolios and myBlueprint would be a beneficial solution.

## Microsoft Teams

Initially introduced as a commercial communication tool in 2017, Microsoft Teams has since gained its popularity among educators as a potential learning management system (LMS). As part of the Microsoft Office 365 suite, Microsoft Teams integrates seamlessly with the other tools in the Microsoft families, such as Word, OneDrive, PowerPoint, Excel, Outlook, Sway, and OneNote. Educators quickly found this virtual classroom environment practical for content creation and collaboration.

Microsoft Teams offers many incentives to educators as an LMS. First, Teams can work with most operating systems, including Windows, macOS, iOS, Android, and web-based browsers. Its seamless integration with the other Office 365 tools provides a centralized platform to streamline communication, create learning activities, and share files. Moreover, Microsoft Teams supports live video conferencing, text messaging, and announcement, enabling synchronous and asynchronous learning experiences. In addition, teachers may set up online classrooms where they can post homework, share course materials, and give students prompt feedback. OneDrive is seamlessly integrated, enabling safe file storage and sharing, and PowerPoint and Word provide teachers the tools they need to make dynamic presentations and documents. This comprehensive bundle provides a dynamic learning environment for both teachers and students while increasing productivity.

Microsoft Teams' tab feature enables users to access educational resources and activities by embedding links to external platforms, such as Prodigy and Kahoot. Coupled with its integration with other Office 365 applications, this feature provides students a dynamic and



interactive learning environment, supporting diverse learning styles. The use of texts, videos, audio recordings, and images by teachers and students to generate tasks, polls, quizzes, and projects is also possible. Microsoft Teams' local data storage in Canada is crucial for upholding the security and sovereignty of sensitive educational data as well as compliance with data privacy laws.

Nevertheless, as an LMS, Microsoft Teams has its own drawbacks. The most prominent is the steep learning curve that new users frequently encounter when first introduced to the site. Due to its extensive capabilities, new users require time and instruction to become accustomed to the functions provided. However, this shortcoming is compensated by the countless instructional manuals and YouTube videos created by Microsoft and its users. Another weakness is found in its limited function of parent interaction. Currently, teachers can connect with parents through a parent connection function, using chats. However, unlike MyBlueprint, parents have no access to student work or class schedules on Microsoft Teams.

### **Google Classroom**

Google Classroom excels in functionality, connectivity, and adaptability. It possesses instant easy connection to the entirety of Google's platforms/programs including docs, forms, sheets, gmail, calendar, chat, slides, meet, sites, photos, jamboard, and more. In addition, Google accounts can be used to link google classrooms to a variety of other educational sources, such as Seesaw, Kahoot, Youtube, Prodigy, and Khan academy. Also, it possesses

integrated accessibility tools such as google translate and voice-to-text. Documents are able to be added to assignments where a copy is made available for each student, and the teacher is able to view, edit, and comment on those documents at any time. These documents can also be shared between students, allowing for quick and easy collaboration, just as the chat functions allow convenient communication between teachers and peers. Also, everything on Google updates continuously and all versions of each assignment can be viewed using a history function, which prevents loss of work due to accidents or forgetfulness, a necessity in the elementary setting. In addition, Google regularly posts its sustainability reports on a public forum (Google, 2023), and leads the industry in several areas, including renewable energy. In addition, while performance can be enhanced with subscriptions, it is entirely possible to use google classroom, and its associated features, for free, meaning its use is extremely sustainable for the purposes of an elementary school budget.

The weaknesses of this LMS can be summarized by customization, parental communication, and data protection. Google classroom has a standard format that, besides color schemes and images, cannot be truly altered or reorganized outside of its lists. In addition, grading customization is limited to names points or percentage systems, and true rubric based assessment or proficiency scales are reduced to number calculations. This limitation prevents more progressive forms of assessment from being formalized within the system. In terms of parental communication, only by accessing their kids' accounts can parents interact with the classroom, otherwise they are limited to occasional summaries of posted assignments and grades. Unfortunately, this hindrance prevents proper school/home communication from occurring on the platform, and other methods of communication need to be used, which is a

downside in a LMS in the elementary setting. Finally, Google stores its classroom data outside of Canada. While the process is encrypted, its servers are located in the United States.

### **The Optimal LMS**

After evaluating the three platforms, we find that Google Classroom is the optimal LMS for elementary teachers. According to our rubric, Google Classroom exceeds expectations in many components of the SECTIONS model. Google Classroom is more appropriate for use in elementary classrooms as it makes learning available to a wider audience and provides more equal access to learning for diverse students (Zaied, 2007). Studies have shown that e-learning using Google Classroom makes online learning more manageable due to its affordability and ease of use (Ningsih & Zulherman, 2022). As well, the use of Google Classroom promotes students' digital literacy levels, which includes students' abilities to absorb, study, analyze and evaluate digital information (Pulungan et al, 2022).

## References

- Bates, T. (2014). Choosing and using media in education: The SECTIONS model. In *Teaching in digital age*. Retrieved from <https://opentextbc.ca/teachinginadigitalage/part/9-pedagogical-differences-between-media/>
- Davies, R. S. (2011). Understanding technology literacy: A framework for evaluating educational technology integration. *TechTrends*, 55(5), 45-52. Retrieved from <https://rdcu.be/4uFx>
- Google (2023). *Sustainability reports and case studies*. Google Sustainability. Retrieved from <https://sustainability.google/reports/>
- Ningsih, M. W., & Zulherman, Z. (2022). Elementary school students intention to use google classroom application: Extended TAM model. *AL-ISHLAH: Jurnal Pendidikan*, 14(4), 5679-5690. <https://doi.org/10.35445/alishlah.v14i4.2055>
- Pulungan, D. Z., Jamaris, J., & Siregar, J. (2022). The effectiveness of google classroom applications on elementary school students' cognitive learning outcomes. *Jurnal Basicedu (Online)*, 6(6), 9864-9877. <https://doi.org/10.31004/basicedu.v6i6.4210>
- Zaied, A. (2007) A Framework for evaluating and selecting learning technologies. *The International Arab Journal of Information Technology*, 4(2), 141-147. Retrieved from [https://www.researchgate.net/publication/220413931\\_A\\_Framework\\_for\\_Evaluating\\_and\\_Selecting\\_Learning\\_Technologies](https://www.researchgate.net/publication/220413931_A_Framework_for_Evaluating_and_Selecting_Learning_Technologies)

## Appendix A

### MyBlueprint Evaluation Rubric

Criteria		Not Yet Meeting Expectations (1)	Meeting Expectations (2)	Exceeding Expectations (3)
<b>Students</b>	Student Demographics	Only available in English. Suitable for an age range that would cover two grades.	Has a language selector with 2-4 languages. Suitable for all Intermediate or all Primary grades. <ul style="list-style-type: none"> <li>- Available in English &amp; French</li> </ul>	Has a language selector with 4+ languages. Suitable for all grades.
	Access	Available on one operating system. Internal LMS that is only available on the school network.	Available on 2-4 operating systems. Available online and accessible from home.	Available on 5+ operating systems. Available online and accessible from home. <ul style="list-style-type: none"> <li>- Accessible through different operating systems including iOS, Windows, Android, etc.</li> <li>- Tablets, computers, mobile app(Class Pass)</li> <li>- Accessible from home and school</li> </ul>
	Adaptability	Not adaptable for different student learning styles.	Somewhat adaptable for different student learning styles. <ul style="list-style-type: none"> <li>- Able to respond in</li> </ul>	Very adaptable for different student learning styles.

			<p>different ways(text, video, audio, photo,etc.)</p> <ul style="list-style-type: none"> <li>- Instructions and directions are text-based, may contain some icons or photos</li> <li>- Has a read aloud option for non-readers (but limited to titles only)</li> </ul>	
<b>Ease of use and reliability</b>	User Interface	User interface is confusing. Not customizable. Little accessibility features.	User interface is functional. Some customization options. Accessibility features are present.	User interface is intuitive. Many customization options. Many accessibility features are present. <ul style="list-style-type: none"> <li>- Most features are customizable for ease of use (avatar, icons, order of posts, tags, colour coded boxes) on own portfolio</li> <li>- Easy to add or delete posts</li> </ul>
	Reliability	Infrequent updates. Many bugs. Frequent outages. No technical support.	Monthly updates. Few bugs. Infrequent outages. Technical support available during business hours. <ul style="list-style-type: none"> <li>- 8am - 6pm ET, Mon - Fri</li> <li>- Resources,</li> </ul>	Bi-weekly updates. No bugs. No outages. 24/7 technical support.

			webinars, and video tutorials available for users	
<u>Costs</u>	Monetary	Expensive. Unpredictable costs. Hidden fees.	Reasonable subscription or fixed cost. No hidden fees. <ul style="list-style-type: none"> <li>- Free with limited features</li> <li>- Paid plan with benefits and more advanced features</li> </ul>	Free
	Time	Multiple training sessions needed for staff and students. No self-service documentation.	Initial training session for staff and students needed. Follow-up training is optional. Self-service documentation is present. <ul style="list-style-type: none"> <li>- Multiple sessions are available for staff to register</li> <li>- Recorded video available for students and staff members</li> <li>- Follow up training may be required for</li> </ul>	Initial training session for staff and students needed. No follow-up training required. Self-service documentation is present.

			complicated features for staff members	
	Environmental	No sustainability report available. No sustainability practices present.	Sustainability report available. Some sustainability practices are present.	Sustainability report available. Many sustainability practices are present.
<b>Teaching functions and media selection</b>	Course & Assignment Creation	Text-based only. Creating assignments is difficult. Little options to customize content per lesson.	Some multimedia functionality is available. Creating assignments is simple. Some options available to customize content per lesson.	Many multimedia functionalities are available and easy to implement. Creating assignments is simple. Many options available to customize per lesson.
	Assessment and Evaluation	No assessment or evaluation features.	Basic assessment and evaluation features. Little options available. <ul style="list-style-type: none"> <li>- Easy to give feedback (message and comment)</li> <li>- Able to attach photos or files, stickers/badges</li> <li>- rubric?</li> </ul>	Assessment and evaluation features are customizable.
	Data Reporting	Data reporting and analytics are not available.	Some data reports are available. Only available for the current year.	Data reports are available and track student progress throughout all grades. <ul style="list-style-type: none"> <li>- Classes are archived</li> <li>- Students can keep their e-portfolio from K to 12</li> </ul>



<b><u>I</u>nteraction</b>	Course Content & Learning Materials	Difficult to interact with course content.	Interaction with course content is possible. Not always clear how to interact.	Interaction with course content is simple and intuitive.
	Collaboration Tools	No collaboration tools. - No interactions among students	Some collaboration tools.	Many collaboration tools.
	Assessment & Feedback Tools	No assessment and feedback functionality.	Assessment functionality is present. Little or no feedback functionality.	Assessment and feedback functionality is present. - Able to comment feedback
<b><u>O</u>rganizational issues</b>	eLearning Readiness	Not compatible with the institution's current devices and infrastructure.	Compatible with the institution's current devices and infrastructure with some restructuring.	Compatible with the institution's current devices and infrastructure with no restructuring. - Option to use current browsers, no further installation required unless using applications
<b><u>N</u>etworking</b>	Student Communication	No communication tools.	Can communicate with their teachers.	Can communicate with their peers and teachers. Can interact with each other.
	Parent Communication	No communication tools.	Can communicate with their child's teachers only.	Can communicate with their child's teachers and interact with their child's work.
<b><u>S</u>ecurity and privacy</b>	Data Protection	Data is not secured or backed up. Data is stored on a shared server.	Data is backed up daily. Some authentication factor is used. Data is stored on a shared server.	Data is backed up hourly. Strong authentication factors which comply with regulatory bodies. Data is stored on a server that is not shared..

	Cloud-based Information Storage Practices	All data is stored in a cloud server that is not located in the institution's country.	Student data is stored in a cloud server that is located in the institution's country. Non-sensitive data is stored in a cloud server that is not located in the institution's country.	All data is stored in a cloud server that is located in the institution's country. - Data centres in Canada
<b>TOTAL</b>	<b>2+14+30 = 46</b>	2	7	10

## Appendix B

### Microsoft Teams Evaluation Rubric

Criteria		Not Yet Meeting Expectations (1)	Meeting Expectations (2)	Exceeding Expectations (3)
<b>Students</b>	Student Demographics	Only available in English. Suitable for an age range that would cover two grades.	Has a language selector with 2-4 languages. Suitable for all Intermediate or all Primary grades.	Has a language selector with 4+ languages. Suitable for all grades. <ul style="list-style-type: none"> <li>- Automatically detects languages settings</li> <li>- Available in 48 languages</li> </ul>
	Access	Available on one operating system. Internal LMS that is only available on the school network.	Available on 2-4 operating systems. Available online and accessible from home.	Available on 5+ operating systems. Available online and accessible from home. <ul style="list-style-type: none"> <li>- Available on iOS, Windows, Android, Web (Safari, Chrome, etc.), and MacOS</li> </ul>
	Adaptability	Not adaptable for different student learning styles.	Somewhat adaptable for different student learning styles.	Very adaptable for different student learning styles. <ul style="list-style-type: none"> <li>- Users can meet, call, conference, chat</li> <li>- Multimedia learning materials can be incorporated easily</li> </ul>

<b>Ease of use and reliability</b>	User Interface	User interface is confusing. Not customizable. Little accessibility features.	User interface is functional. Some customization options. Accessibility features are present. -	User interface is intuitive. Many customization options. Many accessibility features are present.
	Reliability	Infrequent updates. Many bugs. Frequent outages. No technical support.	Monthly updates. Few bugs. Infrequent outages. Technical support available during business hours.	Bi-weekly updates. No bugs. No outages. 24/7 technical support.
<b>Costs</b>	Monetary	Expensive. Unpredictable costs. Hidden fees.	Reasonable subscription or fixed cost. No hidden fees.	Free - Education version is free for students and teachers
	Time	Multiple training sessions needed for staff and students. No self-service documentation.	Initial training session for staff and students needed. Follow-up training is optional. Self-service documentation is present.	Initial training session for staff and students needed. No follow-up training required. Self-service documentation is present.
	Environmental	No sustainability report available. No sustainability practices present.	Sustainability report available. Some sustainability practices are present.	Sustainability report available. Many sustainability practices are present. - Under Microsoft
<b>Teaching functions and media selection</b>	Course & Assignment Creation	Text-based only. Creating assignments is difficult. Little options to customize content per lesson.	Some multimedia functionality is available. Creating assignments is simple. Some options available to customize content per lesson.	Many multimedia functionalities are available and easy to implement. Creating assignments is simple. Many options available to customize per lesson.
	Assessment and	No assessment or evaluation	Basic assessment and	Assessment and evaluation

	Evaluation	features.	evaluation features. Little options available.	features are customizable. <ul style="list-style-type: none"> <li>- Can assign tasks, work, surveys, or quizzes</li> <li>- Teachers can respond through rubrics, videos, audio, and texts</li> </ul>
	Data Reporting	Data reporting and analytics are not available.	Some data reports are available. Only available for the current year. <ul style="list-style-type: none"> <li>- Only available report on the current "Team"</li> <li>- Analytic reports, (such as usage, activity, device) are available.</li> </ul>	Data reports are available and track student progress throughout all grades.
<b>Interaction</b>	Course Content & Learning Materials	Difficult to interact with course content.	Interaction with course content is possible. Not always clear how to interact.	Interaction with course content is simple and intuitive.
	Collaboration Tools	No collaboration tools.	Some collaboration tools.	Many collaboration tools. <ul style="list-style-type: none"> <li>- Users can chat, call, conference within channels</li> <li>- Can also share files</li> <li>- As part of the Office 365 family, users can collaborate using other platforms, such as Word, Excel, PowerPoint, and OneNote</li> </ul>

	Assessment & Feedback Tools	No assessment and feedback functionality.	Assessment functionality is present. Little or no feedback functionality.	Assessment and feedback functionality is present.
<b>Organizational issues</b>	eLearning Readiness	Not compatible with the institution's current devices and infrastructure.	Compatible with the institution's current devices and infrastructure with some restructuring.	Compatible with the institution's current devices and infrastructure with no restructuring. <ul style="list-style-type: none"> <li>- Can be installed on most operating systems</li> <li>- Also available on web browsers, no further installation required</li> </ul>
<b>Networking</b>	Student Communication	No communication tools.	Can communicate with their teachers.	Can communicate with their peers and teachers. Can interact with each other.
	Parent Communication	No communication tools.	Can communicate with their child's teachers only. <ul style="list-style-type: none"> <li>- Teachers and parents can connect through the parent connection channel</li> </ul>	Can communicate with their child's teachers and interact with their child's work.
<b>Security and privacy</b>	Data Protection	Data is not secured or backed up. Data is stored on a shared server.	Data is backed up daily. Some authentication factor is used. Data is stored on a shared server.	Data is backed up hourly. Strong authentication factors which comply with regulatory bodies. Data is stored on a server that is not shared.
	Cloud-based Information Storage Practices	All data is stored in a cloud server that is not located in	Student data is stored in a cloud server that is located	All data is stored in a cloud server that is located in the

		the institution's country.	in the institution's country. Non-sensitive data is stored in a cloud server that is not located in the institution's country.	institution's country. <ul style="list-style-type: none"> <li>- Data stored in Canada</li> <li>- For a list of the geographic region associates with data storage in Teams, visit</li> <li>- <a href="https://learn.microsoft.com/en-us/microsoftteams/location-of-data-in-teams">https://learn.microsoft.com/en-us/microsoftteams/location-of-data-in-teams</a></li> </ul>
<b><u>TOTAL</u></b>	<b>10+39= 49</b>		5	13

## Appendix C

### Google Classroom Evaluation Rubric

Criteria		Not Yet Meeting Expectations (1)	Meeting Expectations (2)	Exceeding Expectations (3)
Students	Student Demographics	Only available in English. Suitable for an age range that would cover two grades.	Has a language selector with 2-4 languages. Suitable for all Intermediate or all Primary grades.	Has a language selector with 4+ languages. Suitable for all grades. <ul style="list-style-type: none"> <li>- Will soon be available in 54 languages</li> <li>- Google Translate connectivity</li> </ul>
	Access	Available on one operating system. Internal LMS that is only available on the school network.	Available on 2-4 operating systems. Available online and accessible from home.	Available on 5+ operating systems. Available online and accessible from home. <ul style="list-style-type: none"> <li>- Available on IOS, Android, the Play store, any google device, computer, tablet, and most electronics with internet access. Available on every browser.</li> </ul>
	Adaptability	Not adaptable for different student learning styles.	Somewhat adaptable for different student learning styles.	Very adaptable for different student learning styles. <ul style="list-style-type: none"> <li>- Connects to google meet, has voice to text, and translation functions.</li> </ul>
Ease of use and reliability	User Interface	User interface is confusing. Not customizable. Little accessibility features.	User interface is functional. <b>Some customization options.</b>	<b>User interface is intuitive.</b> Many customization options. <b>Many accessibility features are present.</b>



			Accessibility features are present.	
	Reliability	Infrequent updates. Many bugs. Frequent outages. No technical support.	Monthly updates. Few bugs. Infrequent outages. Technical support available during business hours. <ul style="list-style-type: none"> <li>- Outages are very rare, tech support is available online, but 24/7 personal support requires a subscription</li> </ul>	Bi-weekly updates. No bugs. No outages. 24/7 technical support.
<b>Costs</b>	Monetary	Expensive. Unpredictable costs. Hidden fees.	Reasonable subscription or fixed cost. No hidden fees.	Free <ul style="list-style-type: none"> <li>- Paid google services exist, but the classroom is completely functional for both teachers and students for free.</li> </ul>
	Time	Multiple training sessions needed for staff and students. No self-service documentation.	Initial training session for staff and students needed. Follow-up training is optional. Self-service documentation is	Initial training session for staff and students needed. No follow-up training required. Self-service documentation is present.

			present.	
	Environmental	No sustainability report available. No sustainability practices present.	Sustainability report available. Some sustainability practices are present.	Sustainability report available. Many sustainability practices are present.
<b>Teaching functions and media selection</b>	Course & Assignment Creation	Text-based only. Creating assignments is difficult. Little options to customize content per lesson.	Some multimedia functionality is available. Creating assignments is simple. Some options available to customize content per lesson.	Many multimedia functionalities are available and easy to implement. Creating assignments is simple. Many options available to customize per lesson. <ul style="list-style-type: none"> <li>- Automatic connection to all google programs (slides, docs, sheets, forms, etc.)</li> </ul>
	Assessment and Evaluation	No assessment or evaluation features.	Basic assessment and evaluation features. Little options available.	Assessment and evaluation features are customizable.
	Data Reporting	Data reporting and analytics are not available.	Some data reports are available. Only available for the current year.	Data reports are available and track student progress throughout all grades.
<b>Interaction</b>	Course Content & Learning Materials	Difficult to interact with course content.	Interaction with course content is possible. Not always clear how to interact.	Interaction with course content is simple and intuitive.
	Collaboration Tools	No collaboration tools.	Some collaboration tools.	Many collaboration tools. <ul style="list-style-type: none"> <li>- Documents can be assigned to an individual or whole class, students are able to</li> </ul>

				easily share their work with each other for comment or collaboration
	Assessment & Feedback Tools	No assessment and feedback functionality.	Assessment functionality is present. Little or no feedback functionality.	Assessment and feedback functionality is present. <ul style="list-style-type: none"> <li>- Grading is limited to points or percentage systems</li> </ul>
<b><u>Organizational issues</u></b>	eLearning Readiness	Not compatible with the institution's current devices and infrastructure.	Compatible with the institution's current devices and infrastructure with some restructuring.	Compatible with the institution's current devices and infrastructure with no restructuring.
<b><u>Networking</u></b>	Student Communication	No communication tools.	Can communicate with their teachers.	Can communicate with their peers and teachers. Can interact with each other. <ul style="list-style-type: none"> <li>- Student to student interaction is limited by email, or on classroom forums, which is needed for elementary.</li> </ul>
	Parent Communication	No communication tools.	Can communicate with their child's teachers only. <ul style="list-style-type: none"> <li>- Parents can get guardian summaries , or use their child's log in</li> </ul>	Can communicate with their child's teachers and interact with their child's work.

<b>Security and privacy</b>	Data Protection	Data is not secured or backed up. Data is stored on a shared server.	Data is backed up daily. Some authentication factor is used. Data is stored on a shared server.	Data is backed up hourly. Strong authentication factors which comply with regulatory bodies. Data is stored on a server that is not shared.
	Cloud-based Information Storage Practices	All data is stored in a cloud server that is not located in the institution's country. <ul style="list-style-type: none"> <li>- Google classroom stores its data outside of Canada</li> </ul>	Student data is stored in a cloud server that is located in the institution's country. Non-sensitive data is stored in a cloud server that is not located in the institution's country.	All data is stored in a cloud server that is located in the institution's country.
<b>TOTAL</b>	2+6+42+2.5 = 52.5	1	4	15

