

Appendix

1

1.1



Remote Work: With the rise of remote work, teams are geographically dispersed and have to work together virtually. Products that promote collaboration can help these teams communicate and collaborate more effectively, leading to increased productivity and better outcomes.

Climate Change: Climate change is a global issue that requires collaboration across industries and nations. Products that promote collaboration can help experts share knowledge and work together to find solutions to this urgent problem.

Healthcare: Healthcare is a complex industry that requires collaboration among doctors, nurses, pharmacists, and other healthcare professionals. Products that promote collaboration can help these professionals communicate and share information more efficiently, leading to better patient outcomes.

Education: Education is another field that requires collaboration among educators, administrators, and students. Products that promote collaboration can help these groups work together more effectively, leading to better learning outcomes.

Disaster Response: In the event of a natural disaster or other emergency, multiple organizations may need to work together to provide relief and aid. Products that promote collaboration can help these organizations coordinate their efforts and work together to provide assistance to those in need.

Supply Chain Management: Supply chain management involves multiple parties, including suppliers, manufacturers, distributors, and retailers. Products that promote collaboration can help these parties work together more effectively, leading to better inventory management and increased efficiency.

<p>Social Justice: Social justice issues require collaboration among individuals, organizations, and governments to effect meaningful change. Products that promote collaboration can help these groups work together more effectively to address issues such as discrimination and inequality.</p> <p>Innovation: Innovation often requires collaboration among experts from different fields. Products that promote collaboration can help these experts share knowledge and ideas more effectively, leading to new and innovative solutions to complex problems.</p>
<p>Cybersecurity: Cybersecurity is an ever-evolving field that requires collaboration among cybersecurity experts, IT professionals, and other stakeholders. Products that promote collaboration can help these groups share information and work together to prevent cyberattacks and protect sensitive data.</p> <p>Globalization: Globalization has led to increased collaboration among businesses, governments, and individuals from different countries and cultures. Products that promote collaboration can help these groups work together more effectively, leading to increased trade and economic growth.</p>

1.2

Client Profile:

Name: Ms. Tanwinder Jareth

Profession: IB MYP Coordinator and Individuals and Societies Instructor

Experience: 23+ years of experience in various IB schools

Personal Life:

- Mother of an IB student currently in MYP 4
- Enjoys spending time with her family and reading books on educational theory and practices

Professional Life:

- Coordinating and managing the International Baccalaureate Middle Years Programme (MYP) at her school
- Teaching Individuals and Societies (Social Studies) to MYP students
- Subject Head of Individuals and Societies Department
- Experienced IB Examiner for eAssessments, regularly assesses student work and provides feedback to improve the quality of the program
- Provides professional development for other teachers to help them integrate the MYP framework into their teaching practices
- Collaborates with other IB coordinators to ensure that the school meets the IB standards and requirements
- Continuously seeks to improve her own teaching practices and keep up-to-date with the latest research and developments in the field of education

Overall, Ms. Tanwinder Jareth is a dedicated and experienced teacher who has dedicated her career to the International Baccalaureate programme. Her role as an IB MYP Coordinator, Individuals and Societies Instructor, and Subject Head have allowed her to make a significant impact on the education of her students and the development of her school's IB program. As a mother of an IB student, she has firsthand experience with the challenges and rewards of the IB programme and is committed to ensuring that her students receive the best possible education.

1.3

Feasibility Report

The purpose of this feasibility report is to assess the feasibility of creating three products that promote academic collaboration. The three products include a resource-sharing question-publishing and answer-posting platform for IB students, a notification and reminder app for teachers to view a list of doubts each student has and schedule meetings with whenever needed, and a quiz site for IB students to host quizzes of any subject while having a friendly competitive nature. The feasibility of each product will be assessed based on the technical hardware and software required, and the time frame of one month.

Idea 1: A resource-sharing question-publishing and answer-posting platform for IB students

- Feasibility: Feasible
- Technical Hardware and Software Required: To create this product, hardware such as computers, smartphones, and internet connectivity will be required. Software such as a programming language, a database management system, and a web hosting service will be needed.
- Time Frame: One month is a sufficient time frame to create this product. The development process can be divided into four stages: planning, design, development, and testing.
- Conclusion: The creation of a resource-sharing question-publishing and answer-posting platform for IB students is feasible within a one-month time frame. The required hardware and software are easily available and the development process can be completed within the given time frame.

Idea 2: A notification and reminder app for teachers to view a list of doubts each student has and schedule meetings with whenever needed

- Feasibility: Not feasible
- Technical Hardware and Software Required: To create this product, hardware such as computers, smartphones, and internet connectivity will be required. Software such as a programming language, a database management system, and a mobile app development platform will be needed.
- Time Frame: One month is not sufficient to create this product. The development process involves planning, design, development, testing, and deployment. Moreover, the mobile app development process requires more time and resources than creating a web-based platform.
- Conclusion: Creating a notification and reminder app for teachers to view a list of doubts each student has and schedule meetings with whenever needed is not feasible within a one-month time frame. The required hardware and software are available but the development process is more complex and requires more time.

Idea 3: A quiz site for IB students to host quizzes of any subject while having a friendly competitive nature

- Feasibility: Not feasible
- Technical Hardware and Software Required: To create this product, hardware such as computers, smartphones, and internet connectivity will be required. Software such as a programming language, a database management system, and a web hosting service will be needed.
- Time Frame: One month is not sufficient to create this product. The development process involves planning, design, development, testing, and deployment. Moreover, creating a quiz site requires complex features such as real-time scoring, user authentication, and user-generated content, which require more time and resources.
- Conclusion: Creating a quiz site for IB students to host quizzes of any subject while having a friendly competitive nature is not feasible within a one-month time frame. The required hardware and software are available but the development process is more complex and requires more time.

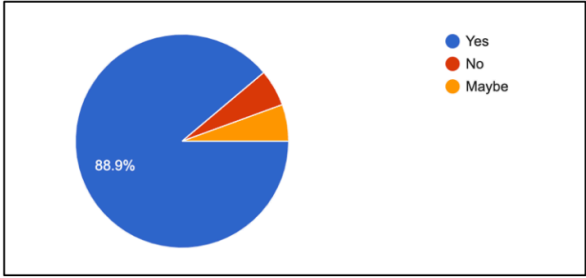
Recommendation: Based on the feasibility assessment, **it is recommended to proceed with the creation of the resource-sharing question-publishing and answer-posting platform for IB students.** The project is feasible within the given time frame, and the required hardware and software are easily available. The development process can be divided into four stages: planning, design, development, and testing.

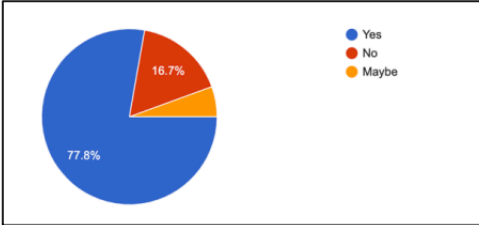
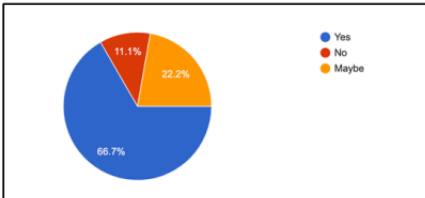
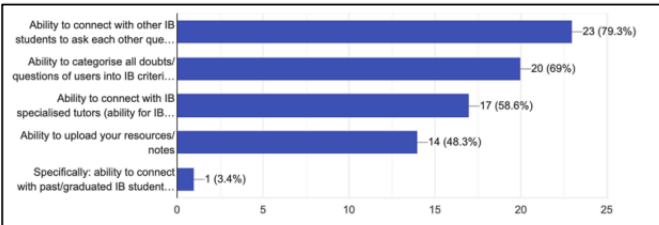
1.4

To start off with my research, I decided to create a **research plan** that effectively identifies the sources I would need for my primary and secondary research:

Priority	Area of Research	Type of Research	Research Method	Research Need	Time
1.	Challenges faced by IB students while trying to clear doubts/gain academic support	Primary	Survey with target audience (IB students in MYP and DP)	This is extremely important to research on due to the fact that delving deeper into the challenges faced by the target audience , and about the issue itself from their perspective is crucial to understand how it can be curbed effectively .	2 hours to create and share the survey
2.	Required functions of the solution aiming to eradicate the challenges faced by IB students	Primary + Secondary	Survey with target audience (IB students in MYP and DP)	After understanding the issue from the viewpoint of the target audience , it would be advantageous to get to know the required functionalities of the solution as per the target audience's needs . This would also help me gain an insight into possible mediums for the solution.	2 hours to create and share the survey
3.	Appropriate digital mediums for the solution (Website, App, etc)	Secondary + Analysis of existing solutions	Researching about the digital mediums + researching about existing solutions	After identifying the functionalities , I would finalise the most appropriate digital medium for creation the solution by connecting with my client and analysing existing solutions.	15 minutes (max.) to interact with client + 2 hours for research and product analysis
4.	Features required, especially considering the digital medium chosen	Secondary + Analysis of existing solutions	Researching about existing solutions	Next , I would finalise the features required keeping in mind the chosen digital medium . These features would also comply with the required functionalities .	2 hours for research and product analysis
5.	User Interface, User Experience and Designing	Primary + Secondary + Analysis of existing solutions	Survey with target audience + researching about existing solutions	Lastly, I would need to research on various aspects of the UI such as the colour palette so that it appeals to the target audience .	2 hours to create and share the survey + 2 hours for research and product analysis

1.5

Primary Research									
Question	Relevance, Results and Data								
Q1. Do you face challenges while trying to obtain answers that comply with IB expectations to your doubts and questions ? (Especially post school hours)	<p>RELEVANCE: This helps me understand whether or not IB students actually face challenges while trying to get appropriate answers to their doubts and questions post school hours. This would help me determine whether an effective solution to curb the issue is needed or not further hinting towards the possible features needed.</p> <p>FINDINGS: 88.9% of all people conveyed that they face challenges while trying to obtain accurate IB specific answers to their doubts.</p>  <table border="1"> <caption>Survey Results for Q1</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>88.9%</td> </tr> <tr> <td>No</td> <td>8.9%</td> </tr> <tr> <td>Maybe</td> <td>2.2%</td> </tr> </tbody> </table>	Response	Percentage	Yes	88.9%	No	8.9%	Maybe	2.2%
Response	Percentage								
Yes	88.9%								
No	8.9%								
Maybe	2.2%								

<p>Q2. Do you often face unclarity in concepts and topics that are exclusive to IB, due to not being able to obtain IB specific guidance/support? (Especially post school hours)</p>	<p>RELEVANCE: This helps me determine if the inaccessibility to appropriate answers (or academic guidance) to doubts results in making IB students face unclarity and confusion in concepts, which may have a negative impact on their performance in assessments as well.</p> <p>FINDINGS: 77.8% of the people voted 'Yes' conveying that they face unclarity in topics and confusion in concepts due to not obtaining accurate answers to their doubts and questions.</p>	 <table border="1"><thead><tr><th>Response</th><th>Percentage</th></tr></thead><tbody><tr><td>Yes</td><td>77.8%</td></tr><tr><td>No</td><td>16.7%</td></tr><tr><td>Maybe</td><td>6.5%</td></tr></tbody></table>	Response	Percentage	Yes	77.8%	No	16.7%	Maybe	6.5%										
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<p>Q3. Do you often face challenges connecting to other IB students from across the world, and/or IB students from your nation itself for indulging in discussions?</p>	<p>RELEVANCE: This question would be extremely beneficial in understanding whether it is hard for IB students to find others like them online, and if connecting IB students from all across the world and encouraging them to provide each other with academic support would be helpful or not. For instance, if the majority of them select 'Yes', it would mean that connecting IB students has a significant potential to make them academically support, guide and help each other as well.</p> <p>FINDINGS: 66.7% of the people conveyed that they face challenges while trying to connect with other IB students. This means that majority of people do not have access to platforms that have communities of IB students possibly because they are unorganized, cluttered, and made for small groups of people (such as communities on social media).</p>	 <table border="1"><thead><tr><th>Response</th><th>Percentage</th></tr></thead><tbody><tr><td>Yes</td><td>66.7%</td></tr><tr><td>No</td><td>22.2%</td></tr><tr><td>Maybe</td><td>11.1%</td></tr></tbody></table>	Response	Percentage	Yes	66.7%	No	22.2%	Maybe	11.1%										
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Maybe	11.1%																			
<p>Q4. Which of the following functionalities in a digital product do you think would help curb the above issue(s)?</p>	<p>RELEVANCE: This would help me understand what IB students want in a solution to curb the problems identified in the previous 3 questions: Lack of Collaboration with other IB students and challenges in obtaining appropriate IB specific answers to doubts/questions.</p> <p>FINDINGS: 2 of the most voted categories were as follows; 79.3% of the people wanted the ability to connect with other IB students to ask each other questions and 69% of the people wanted the ability to categorise all doubts/questions of users into IB criterions, subjects and grades so that they can be filtered/searched for easily.</p>	 <table border="1"><thead><tr><th>Functionality</th><th>Count</th><th>Percentage</th></tr></thead><tbody><tr><td>Ability to connect with other IB students to ask each other questions</td><td>23</td><td>79.3%</td></tr><tr><td>Ability to categorise all doubts/questions of users into IB criterions, subjects and grades</td><td>20</td><td>69%</td></tr><tr><td>Ability to connect with IB specialised tutors (ability for IB students to ask questions)</td><td>17</td><td>58.6%</td></tr><tr><td>Ability to upload your resources/notes</td><td>14</td><td>48.3%</td></tr><tr><td>Specifically: ability to connect with past/graduated IB student</td><td>1</td><td>3.4%</td></tr></tbody></table>	Functionality	Count	Percentage	Ability to connect with other IB students to ask each other questions	23	79.3%	Ability to categorise all doubts/questions of users into IB criterions, subjects and grades	20	69%	Ability to connect with IB specialised tutors (ability for IB students to ask questions)	17	58.6%	Ability to upload your resources/notes	14	48.3%	Specifically: ability to connect with past/graduated IB student	1	3.4%
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Secondary Research	
Question	Relevance, Results and Data
<p>Q1. What is the most appropriate digital medium to fulfil the function of "question-and-answer posting" as well as "categorizing questions"? Moreover, what are the features that are essential to include keeping in mind the medium and its functions?</p>	<p>A website has a much wider reach than a native app, social media page, or social media community because it is available on all devices and can be easily shared by users and be accessed with the help of any search engine.</p> <p>Furthermore, a social website is the most suitable option as it allows users to connect, communicate, share information. Social websites serve as a platform which can people use to connect with other people who share similar personal or career content, interests, activities, backgrounds or real-life connections. A successful Q&A social website should have an activity feed, ability to follow or join topics/subjects, share questions, post answers, edit user profile, and have an editable profile page. Moreover, it may also have the ability for users to edit shared content after posting.</p>
<p>Q2. What is the most appropriate UI theme for a site for IB students?</p>	<p>5 colours in the classroom that may boost productivity include red, yellow, orange, green and blue. Out of these, blue is the colour which IB students associate themselves with the most due to the fact that the IB logo is a shade of blue. Hence, the website could and should revolve around the shades of blue.</p>

1.6

Analyzing the generic strengths and limitations of online collaborative sites for students:

Strengths of Online Collaborative Sites for Students:

- Enhance Collaboration: Online collaborative sites facilitate communication and collaboration among students, allowing them to work together more effectively and efficiently.
- Improve Communication: These sites allow students to communicate with their peers in real-time, irrespective of their location or time zone.
- Foster Creativity: Online collaborative sites provide students with a platform to express their ideas and creativity, leading to increased participation and engagement in group projects.
- Easy Access to Resources: These sites provide easy access to resources such as project files, research materials, and other study materials, making it easy for students to collaborate and work together.
- Facilitate Peer Review: Online collaborative sites make it easy for students to review and critique each other's work, allowing for constructive feedback and improved learning outcomes.

Limitations of Online Collaborative Sites for Students:

- Technology Issues: Online collaborative sites rely heavily on technology, and any technical issues such as internet connectivity, server downtimes, and software glitches can hamper collaboration and learning.
- Limited Personal Interaction: Online collaborative sites cannot replace the personal interaction and face-to-face communication that is possible in traditional classroom settings.
- Dependence on Digital Literacy: Students need to be digitally literate to effectively use online collaborative sites. Those who lack technological skills may find it challenging to collaborate online.
- Privacy and Security Concerns: Online collaborative sites often require students to share their personal information, which can raise privacy and security concerns.
- Potential for Academic Dishonesty: Online collaborative sites can increase the risk of academic dishonesty, as it may be difficult to verify the originality of work submitted online.

In summary, while online collaborative sites provide many benefits for students, they also have their limitations. It is essential to consider these limitations and weigh them against the benefits when incorporating online collaborative sites into educational practices.

2

2.1

Design Specifications:

When designing a website for students, it is essential to consider the readability, accessibility, and user-friendliness of the design. Here are some possible design specifications for the colour and font of a website made for students:

- Colour Scheme:

1. Use a colour scheme that is visually appealing, but not too bright or distracting.
2. Choose colours that are easy on the eyes and do not strain the eyesight.
3. Consider using colours that are consistent with the school's branding or theme.
4. Use a limited colour palette, with no more than 3-4 colours, to avoid overwhelming the user.

- Font:

1. Use a font that is easy to read, such as Arial, Verdana, or Helvetica.
2. Avoid using cursive or ornate fonts, as they can be difficult to read, especially for dyslexic students.
3. Choose a font size that is large enough for easy reading, with a minimum of 16px.

4. Use different font sizes and weights to differentiate between headings, subheadings, and body text.
- **Contrast:**
 1. Ensure that there is sufficient contrast between the background and text to make it easy to read.
 2. Avoid using light text on a light background or dark text on a dark background, as it can make it difficult to read.
 3. Use high contrast for important information and low contrast for less important information.
- **Accessibility:**
 1. Ensure that the website is accessible for all users, including those with disabilities.
 2. Use ALT tags for images to provide a text alternative for visually impaired users.
 3. Ensure that the website is keyboard accessible for users who cannot use a mouse.
 4. Use a high-contrast mode for users with visual impairments.

In summary, when designing a website for students, it is essential to choose a colour scheme and font that are visually appealing, easy to read, and accessible to all users. By considering these design specifications, the website can be user-friendly and help students engage more effectively with the content.

Possible elements and functionalities:

- **Search bar:** A search bar helps users find the information they need quickly and easily. Users should be able to search for questions by keyword or topic.
- **Categories:** Questions should be organized into categories to make it easier for users to find relevant information.
- **Ask a question:** Users should be able to ask a question on the site. This functionality should include a form that prompts the user to enter their question, category, and any other relevant information.
- **Answer a question:** Users should be able to answer questions on the site. This functionality should include a form that prompts the user to enter their answer, any relevant links or sources, and their credentials or expertise on the topic.
- **Voting system:** A voting system allows users to upvote or downvote questions and answers. This helps to prioritize the most relevant and useful content and makes it easier for users to find the best answers.
- **Commenting:** Users should be able to comment on questions and answers. This functionality allows for additional discussion and clarification on a particular topic.
- **Moderation:** Moderation is essential to maintain the quality of content on the site. Moderators should be able to delete inappropriate or spammy content, and users should be able to report inappropriate content.
- **Notifications:** Users should receive notifications when their question is answered, when a comment is posted on their question or answer, and when someone upvotes their question or answer.
- **User profiles:** User profiles allow users to provide information about themselves, including their credentials or expertise, and their activity on the site.
- **Analytics:** Analytics can help site owners track user activity, popular topics, and engagement rates. This information can be used to optimize the site and improve the user experience.

2.2

Interaction with Client for Design Ideas:

Me: Can you tell me which of the five design options we presented you with you are leaning towards?

Client: I really like the fifth design option. The navigation bar is very intuitive and user-friendly. The post layout is simple yet elegant, and the header is nicely designed. The features seem to be well-organized and I like the overall functionality of the site.

Me: Great, I'm glad to hear that you like the fifth design option. Can you tell me a bit more about why you find the navigation bar appealing?

Client: Sure, I like how the navigation bar is easily accessible from any page on the site. The different sections are clearly labeled and it's easy to find what you're looking for. I also appreciate the search bar, which makes it easy to quickly find specific topics or questions.

Me: That's a good point. And what do you think about the post layout?

Client: I really like the clean and simple layout of the posts. The use of white space and typography makes it easy to read and navigate. The featured image is also a nice touch and adds visual interest.

Me: I see. And how about the header and the features?

Client: I think the header is nicely designed and fits the theme of the site well. It's not too distracting but still catches your attention. As for the features, I like how they are displayed in a clear and concise way. The ability to upvote and downvote answers and questions is a great feature, and the ability to mark questions as solved is also very helpful.

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