




**Technology for Teaching  
and Learning 2 (TTL 2)**

# **Challenge Library**

# Challenge Library

Technology for Teaching and Learning 2

Duration: 3 weeks | LO Code: TTL 2-1, TTL 2-2

<p><b>Resource 1: Webpage</b></p> <p><b>Title:</b> What is Obesity?</p> <p><b>Author:</b> BBC UK</p> <p><b>Overview:</b> This page defines and explains what obesity is.</p> <p><b>Reading time:</b> 5-10 minutes</p>  <p><b>What is obesity?</b> A person is said to be obese if they have such a high excess ... bbc/obesity</p>	<p><b>Note to the Library User</b></p> <p>About Resource 1</p> <p>This webpage provides an overview of what obesity is. This is a good place to start understanding the challenge of obesity.</p> <p><b>What I like about this resource:</b></p> <ul style="list-style-type: none"><li>• Its simple and easy to understand.</li><li>• There's an assessment part as well embedded in the webpage.</li></ul> <p><b>What I don't like about this resource</b></p> <ul style="list-style-type: none"><li>• The resource does not include the aspect of physical exercise and how it can help address obesity.</li></ul>	<p><b>Resource 2: Video</b></p> <p><b>Title:</b> I Got It! Philippines - Obesity (2014)</p> <p><b>Overview:</b> This is a video-documentary about a child and how his eating habits have led to his obesity.</p> <p><b>Viewing time:</b> 10 minutes and 13 seconds</p>  <p><b>I GOT IT - Philippines - Obesity (Season 4   2013)</b> by IGottITV YouTube</p>	<p><b>Note to Library User</b></p> <p>About Resource 2:</p> <p>If you'd like to see the human-side of obesity, this video might interest you! Follow the story of Celver (8 years old) and learn about obesity.</p> <p><b>What I like about this resource:</b></p> <ul style="list-style-type: none"><li>• Entertaining and Informative: Because of its format, docu-film, the topic of obesity is presented in an entertaining but still in an informative manner.</li><li>• Easy to understand: The video is done by Filipinos. The language used is Tagalog, with English subtitles.</li></ul> <p><b>What I don't like about this resource:</b></p> <ul style="list-style-type: none"><li>• [Spoiler Alert] Processing issues such as bullying: There's a part in the video about bullying. I wish the video also had a bit of processing on why bullying is also unhealthy.</li></ul> 
<p><b>Resource 3: Journal Article</b></p> <p><b>Title:</b> Factors Associated with Overweight and Obesity among Adults 20.0 Years and Over (2019)</p> <p><b>Overview:</b> This scientific paper explores the different factors that contribute to obesity in adults 20 years old and above</p> <p><b>Reading Time:</b> 15-20 minutes</p>	<p><b>Note to Library User</b></p> <p>About Resource 3</p> <p>Hello! If you are interested to see the scientific data on what contributes to obesity in Filipino Adults, you might want to check this resource out!</p> <p><b>What I like about this resource:</b></p> <ul style="list-style-type: none"><li>• Highly scientific: The paper explains what obesity is. The data supports the paper's claims as well.</li><li>• It's recent and updated. The paper got published in 2019</li></ul> <p><b>What I don't like about this resource:</b></p>	<p><b>Resource 4: Journal Article</b></p> <p><b>Title:</b> Estimating the Prevalence of Young Adult Obesity in Provinces in Highly Urbanized Cities in the Philippines (2016)</p> <p><b>Overview:</b> This paper explores the relationship of the number of commercial establishments and obesity in young adults in HUCs and Provinces in the Philippines</p> <p><b>Reading Time:</b> 20-30 minutes</p>	<p><b>Note the the Library User</b></p> <p>About Resource 4</p>

## Note to the Teacher

Hello Teacher! In this 3-week activity, we will challenge our students to identify real-world problems in their chosen specialization. This project aims to refine their skills in framing problems in a specific and measurable way, and to answer the following questions:

- *What is the problem?*
- *What are the givens?*
- *What are the current solutions?*
- *Why should we solve them?*

At the end of the project, our students will reflect on the experience of problem finding and framing, researching and curating resources, and building and designing their digital challenge library. It can be done through an in-class presentation or an engaging discussion.

This project can also be used as a precursor to the EdTech Design Challenge, which is also included in the TTL 2 course pack.

## Learning Outcomes

By the end of this project, learners will:

- TTL 2-1** Use ICT to develop 21st Century Skills: Information, Media and Technology Skills, Learning and Innovation Skills, Life and Career Skills, and Effective Communication Skills;
- TTL 2-2** Develop project- and problem-based, collaborative plans and activities in various subject areas using technology tools.

## Product Description

### Digital Library

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A digital library that contains resources about real-world challenges that their area of specialization can contribute solutions to. The real-world challenges are chosen by the students based on their context and the specific topic discussed in TTL 2.

The digital library will be hosted on the student's chosen platform that suits their specific context and needs such as ability, access, language, modality, etc. The resources in the digital library must be credible and properly-referenced.




Each real-world challenge contains a short write-up on why the student thinks this challenge is important and how ICT may be used to address this challenge.

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## Product Rubric

<b>Credible</b>	The resources in the challenge library all have credible sources.
<b>Meaningfully arranged</b>	The challenge library provides a learning experience that has a logical flow (e.g. chronological, expository, general to specific).
<b>Substantial amount</b>	The challenge library contains three (3) real-world challenges with at least five (5) resources exploring the background and status of the chosen real-world challenge.
<b>User-friendly</b>	The challenge library is easy to navigate and content is clearly identified and structured.
<b>Student Reflection</b>	The write-up of the real-world challenge in the challenge library articulates why the student chose that particular challenge.

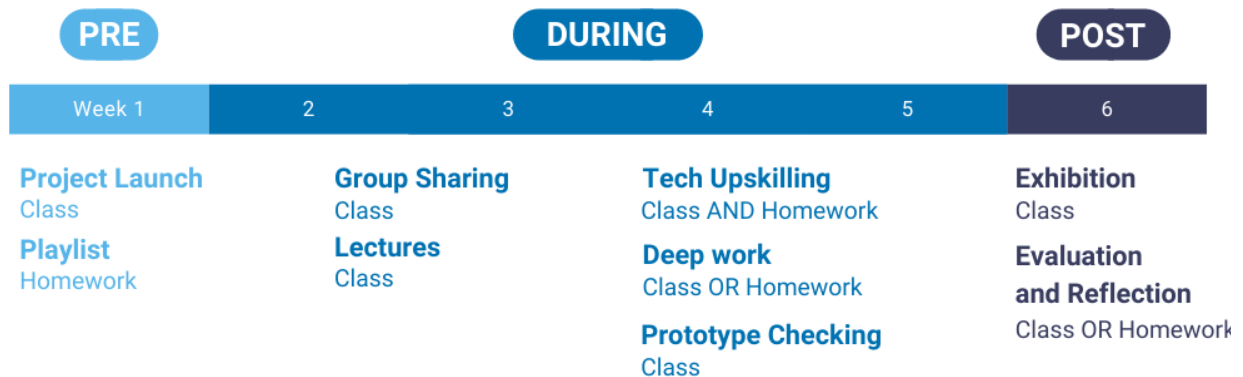
# Sample work

<p><b>Resource 1: Webpage</b></p> <p><b>Title:</b> What is Obesity?  <b>Author:</b> BBC UK  <b>Overview:</b> This page defines and explains what obesity is.  <b>Reading time:</b> 5-10 minutes</p>  <p><b>What is obesity?</b>  A person is said to be obese if they have such a high excess ...  bbc bite-size</p>	<p><b>Note to the Library User</b></p> <p>About Resource 1  This webpage provides an overview of what obesity is. This is a good place to start understanding the challenge of obesity.</p> <p><b>What I like about this resource:</b></p> <ul style="list-style-type: none"> <li>• Its simple and easy to understand.</li> <li>• There's an assessment part as well embedded in the webpage.</li> </ul> <p><b>What I don't like about this resource</b></p> <ul style="list-style-type: none"> <li>• The resource does not include the aspect of physical exercise and how it can help address obesity.</li> </ul>	<p><b>Resource 2: Video</b></p> <p><b>Title:</b> I Got it! Philippines - Obesity (2014)  <b>Overview:</b> This is a video-documentary about a child and how his eating habits have led to his obesity.  <b>Viewing time:</b> 10 minutes and 13 seconds</p> 	<p><b>Note to Library User</b></p> <p>About Resource 2:  If you'd like to see the human-side of obesity, this video might interest you! Follow the story of Celver (8 years old) and learn about obesity.</p> <p><b>What I like about this resource:</b></p> <ul style="list-style-type: none"> <li>• Entertaining and Informative: Because of its format, docu-film, the topic of obesity is presented in an entertaining but still in an informative manner.</li> <li>• Easy to understand: The video is done by Filipinos. The language used is Tagalog, with English subtitles.</li> </ul> <p><b>What I don't like about this resource:</b></p> <ul style="list-style-type: none"> <li>• [Spoiler Alert] Processing issues such as bullying: There's a part in the video about bullying. I wish the video also had a bit of processing on why bullying is also unhealthy.</li> </ul>
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<http://bit.ly/TTL2-BPEdLibrary>

Here is a [sample Challenge Library](#) by a BPed major. She used Padlet to construct her output, and added notes for the resources, giving a general overview and time allotment for each use. She also gave a brief review and highlighted what she liked and didn't like about each resource.

## Overall Learning Journey



## Detailed Learning Journey

### Project Launch

The Project Launch is done to introduce a real-world problem or situation that students can explore and try to solve. When done purposefully, the project launch motivates the students to investigate authentic real-world problems and come up with a product or solution. This is also the time to introduce and discuss what the project or product might look like through the rubrics.

### Entry Event (Inquire) | 15 to 30 minutes

- Students listen to education practitioners and their stories and experiences of addressing real-world problems through their specialization.

### Lectures (Acquire) | 20 to 30 minutes in class

- Students listen to the overview of the project, its specifications, and rubrics.
- Students learn about the target learning outcomes, the driving question, and the authentic task

### During

The next set of recommended activities are done to develop the necessary knowledge and skills to address the project's real-world problem. These activities are a mix of lectures, individual work, group activities, reflection, and feedback sessions. Feel free to add or remove activities to suit your students' context and needs. Remember to include checkpoints and feedback sessions to monitor and support student progress.

### **Group Sharing (Discussion) | 15 to 20 minutes in class**

- Students share their motivations and reasons for choosing their area of specialization.
- Students start thinking about real-world challenges and problems that their area of specialization may contribute solutions to.

### **Lectures (Acquire) | 30 to 45 minutes in class**

- Students listen to a lecture on 21st Century Skills. Students learn about the different frameworks on 21st Century Learning.
- Students learn about the importance of identifying the problem and problem framing.

### **Deep Work (Make) | in class or homework**

- Students revisit their initial list of real-world challenges and problems.
- Students practice the skill of problem finding and problem framing to better understand their chosen real-world challenges.

### **Deep Work (Collaborate) | 20 minutes in class**

- Students search and curate references and resources about their chosen real-world challenges.

### **Tech Upskilling (Practice) | 20 minutes in class, or homework**

- Students explore and practice using tech tools recommended by their teacher which can be used as a repository for their challenge library.
- Suggested Tech Tools: Webpage Creation Tool (Google Site), Social Media Sites (Facebook Page, Pinterest) Blogging Platforms (WordPress, Blogspot), Slides/Presentation (Powerpoint, Google Slides), Digital Canvas (Padlet, Mural).

### **Deep Work (Collaborate) | 30 to 45 minutes in class, or homework**

- Students build their digital challenge library by curating references and resources for their chosen real-world problem that their specialization may address.
- Students may choose any tech tool which suits their intention for the digital challenge library and follows the specified project description and rubric.

### **Prototype Check (Discuss) | 30 to 45 minutes in class**

- Students share their initial projects with each other. Students give and receive feedback on their respective challenge libraries.
- Students process and execute the feedback received.

## Post

The last set of activities serve as the project's culmination. These activities allow students to share their processes and product. This is also the opportunity to facilitate a summative assessment of the intended learning outcomes and encourage student reflection as they look back on their experience in solving real-world problems.

### **Exhibition | 15 minutes in class or homework**

- Students compile all their individual outputs in a class folder or board.
- Students take the time to browse each other's outputs.
- Students share their outputs to at least one person outside their class (ex. social media, send directly to a peer) and ask for feedback on (1) their user experience in using the challenge library, and (2) thoughts and ideas on the chosen real-world challenges.

### **Reflection | 15 minutes in class or homework**

- Students reflect on their experience from problem finding and framing, to researching and curating resources, to building and designing their digital challenge library.

## Digital Tayo Modules

The Digital Tayo modules are a great supplement to this project. Here are some lessons that we recommend, but feel free to look through the Digital Tayo website to select particular lessons that you want to use.

### [Digital Engagement Module](#)

Topic	Lesson	Description
ICT and 21st Century Skills	<a href="#">Lesson 1: Respect and Boundaries</a>	Students will better understand others' perspectives and feelings on sharing personal information online.
	<a href="#">Lesson 2: Healthy Online Relationships</a>	Students will identify qualities that constitute healthy and kind relationships, and how online behavior plays a role in both healthy and unhealthy relationships.
	<a href="#">Lesson 3: What is Verification?</a>	Students will learn what information verification is, and learn about the responsibilities that news organizations, audience members, and social media companies have in promoting a safe, truthful, and ethical media landscape.
	<a href="#">Lesson 4: The Verification Steps</a>	Students will learn about a five-step checklist they can use to verify the veracity of a news image or video. They will learn the limitations inherent in the verification process and consider different tools they can use to support their pursuit of the truth.

### [Digital Empowerment Module](#)

Topic	Lesson	Description
Defining the Advocacy	<a href="#">Lesson 1: Advocacy and Making Change</a>	Students will learn about the concept of advocacy by identifying an issue that affects their community and brainstorming two changes that they want to see in the future concerning that problem.
Online Community-building	<a href="#">Lesson 2: Building your Advocacy Network</a>	Students will learn how social networks can be leveraged to promote advocacy efforts. Students will also learn how to develop online content to spread information about a cause of interest.
Media and	<a href="#">Lesson 3:</a>	Students will learn about and identify ways in which



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**Tech  
Integration**

[Raising  
Awareness  
Through  
Media](#)

various types of media can be used to promote awareness around an issue.

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## Suggested Resources

The following are suggested resources we curated that can be used as support material for the different topics and units in the curriculum, or for the conduct of the project.

Topic	Resources
<b>Frameworks on 21st Century Learning</b> <ul style="list-style-type: none"><li>• 4Cs of 21st Century Learning</li><li>• UNESCO's 4 Pillars of Learning</li><li>• Partnerships21 (P21)</li><li>• OECD's Learning Compass</li></ul>	<a href="#"><u>What are the 4 C's</u></a> <a href="#"><u>4 C's of 21st Century Learning</u></a> <a href="#"><u>UNESCO's Pillars of Learning</u></a> <a href="#"><u>P21 Framework</u></a> <a href="#"><u>OECD's Learning Compass</u></a>
<b>Education and its Role in Society</b>	<a href="#"><u>Debating the Future of Education</u></a> <a href="#"><u>Role of Education in Society</u></a>
<b>Problem Finding and Framing Exercises</b> <ul style="list-style-type: none"><li>• Identifying a problem</li><li>• Problem Framing</li><li>• Problem Tree (Cause and Effect)</li></ul>	<a href="#"><u>How to Identify a Problem</u></a> <a href="#"><u>A Guide to Problem Framing</u></a> <a href="#"><u>Problem Tree Exercise</u></a>
<b>Collaborative Pedagogies</b> <ul style="list-style-type: none"><li>• Problem-based learning</li><li>• Project-based learning</li></ul>	<a href="#"><u>Problem-Based Learning (PBL)</u></a> <a href="#"><u>PBL Worksheets, Templates, and Videos</u></a> <a href="#"><u>Collection of PBL Projects</u></a>

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