Lesson 10: Market Research

Overview

Question of the Day: How can we use existing apps as inspiration for our own apps?

In this lesson students research apps similar to the one they intend on creating to better understand the needs of their users. Students work within their teams to search the Internet for other apps, then evaluate the ones they find interesting. By the end of the lesson, each team will have a clearer idea about the type of app they want to create and further refine who their target users are. Each team will maintain a list of citations for all the apps they examined for use in their final presentation.

Purpose

This lesson is the primary opportunity students have to get user input into the original conception of their app. By looking at apps similar to the ones they have proposed needing they may be inspired to change the structure of their app or may even identify an aspect of their problem they had previously ignored. In later lessons students will test out prototypes of their app to perform further refinements.

Assessment Opportunities

1. **Evaluate a design based its ability to meet target user's needs**

   Activity Guide: The "liked" and "didn't like" columns of the chart should clearly relate back to the user needs as described in the "Who is the target user" column.

2. **Evaluate the purpose and impact of a computational artifact**

   Activity Guide: The apps and descriptions identified in the first column of the chart should show a relationship to the team's original app topic from the previous lesson, and the second column should identify how the apps meet the target group's needs.

Standards

Full Course Alignment

CSTA K-12 Computer Science Standards (2017)

- **IC** - Impacts of Computing

Objectives

Students will be able to:

- Evaluate a design based its ability to meet target user's needs
- Evaluate the purpose and impact of a computational artifact

Preparation

- Arrange classroom seating for teams of 4-5 students
- Print one copy per team of the activity guide

Links

Heads Up! Please make a copy of any documents you plan to share with students.

For the teachers

- **CSD Unit 4 - The Design Process** - Slides

For the students

- **Market Research** - Activity Guide

Agenda

Warm Up (5 minutes)
- **Getting Prepared**
- **Journal**

Activity (35 minutes)
- **Finding Similar Apps**
- **Brainstorming App Ideas**

Wrap Up (5 minutes)
- **Journal**

Teaching Guide

Warm Up (5 minutes)

Getting Prepared

Distribute: Make sure each team has their materials available, especially the Team Contract they created yesterday.

Group: Have the students sit at their team tables. This will be the default seating arrangement for the rest of the unit.

Journal

Prompt: Today we will be looking at similar apps that might already exist for the topic and users we brainstormed yesterday. Before we go look online, What type of apps do you predict you'll find when we do our research?

Discuss: Give groups a minute to journal individually, then brainstorm in their groups. Ask someone from each group to share with the class.

Discussion Goal

Goal: This is a quick, low-stakes brainstorm that asks students to bring in their own experiences with apps and imagine what apps might already exist for their same topic and user. Ideally, as groups share out, heading from other groups will inspire new ideas their group hadn't considered.

Remarks

> Today you will work in your teams to research any similar apps that might already exist for your topic as a form of inspiration. This will also help narrow-in on the type of user you would like to design your app for, and the type of app you will be making. It's okay to get inspired by the apps you see and borrow some of their ideas for your app, but we are not yet planning out the individual screens of what the app will look like - that happens in a later lesson.

Question of the Day: How can we use existing apps as inspiration for our own apps?

Activity (35 minutes)

Distribute: Hand out one copy of the activity guide to each team.

Teaching Tip

Reducing Printed Materials: This Activity Guide can be completed online or as a journal activity.

Market Research Activity Guide

Finding Similar Apps

Display: Read through the instructions on the Market Research activity guide. Every student is expected to find at least one app for the team to analyze. Give students time to research individually first, then time to share the apps they found in their teams. They should make special note if there are any features of the apps they found that they might “borrow” for their own app.

Researching Apps: Here are a few places for students to search:

- **Code.org Public Gallery**
- Mobile app classes or competitions such as:
  - **Apps for Good**
  - **Technovation**
- Mobile app stores like Apple App Store or Google Play
- General web search using Google or Bing
  - Try phrases like “app competition” or “apps for social good”
  - Include your state name for local ideas or competitions

Circulate: Monitor teams as they look for apps and complete the first page of the activity guide. This activity may start off quietly as students research on their own, but will gradually build to team conversations as they share the apps with their teams. Make sure teams are recording the name and location of the app they research, so they can later create a citation in their final presentation.

Assessment Opportunity

As students fill out the chart, circulate to ask them questions about why they chose those particular apps, and how they identified the app's target users. Make sure students are thinking about the target users as well as the general app topic. As they fill out the "liked" and "didn't like" columns, ensure that they are doing so from the perspective of their identified user group's needs, rather than their own personal preferences.

Brainstorming App Ideas

Display: Have teams transition to the second page of the activity guide and read the instructions. Inspired by their research, teams should have roughly 10 minutes to share specific ideas for the apps they want to make and the features the app should have. There is space for them to write down these ideas as team members propose them. As they generate ideas, they should also record the apps they discovered that inspired their ideas.

Circulate: Monitor students as they complete their brainstorm, ensuring all voices are heard in their discussions. Their goal today is to start getting more specific with the app the team wants to design, including the features the app should have. Emphasize that they will have time in the next lesson to

make a final choice, plus time in future lessons to design the app.

Teaching Tip

Brainstorming: This brainstorming activity can also be done with Post It notes similar to yesterday's activity. Students can write down their ideas as they have done in previous grouping exercises, then as a team select the top 3-6 ideas and record them on their activity guide.

Collect: Either collect the materials from each team or have students store their market research activity guide in the same place as their team contract so they can be accessed later.

Wrap Up (5 minutes)

Journal

Prompt: What is one feature you are excited for your app to have?

Discuss: Have students journal individually, then share in their groups. Ask one person from each group to share with the class.

Discussion Goal

Goal: This prompt is meant to generate shared excitement for the ideas they've generated so far, and build momentum for the next few lessons as they begin designing their user interface for their app. There are no right or wrong answers - it's more important for each student's voice to be heard within their group as they share the features they're excited for.