

The Case for Curiosity

Sherry Franklin, Daniel Schwarz, Mary Braggs
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Time Frame 130-175 minutes

Essential Question(s)

How do we become better writers and researchers?

Summary

High school is an excellent place for students to begin honing their research and writing skills. Practicing these skills enables students to become better writers and thinkers. This activity could easily apply to clubs that have a project component which may require research, such as robotics club or a business club, to support a student project. After learning about research techniques, students will have the opportunity to participate in a "scavenger hunt" as they search for resources. They will then practice writing an outline for a research paper, and they will work with a partner to review the work they have done.

Learning Goals

- Students identify skills needed in order to conduct thorough research and to write effective papers.
- Students determine which research and writing techniques work best for them as they research and write about a subject that interests them.
- Students create an outline as they conduct their research and prepare to write a paper.

Attachments

- Activity Slides—The Case for Curiosity.pptx
- Planning The Perfect Paper Handout—The Case for Curiosity - Spanish.docx
- Planning The Perfect Paper Handout—The Case for Curiosity - Spanish.pdf
- Planning The Perfect Paper Handout—The Case for Curiosity.docx
- Planning The Perfect Paper Handout—The Case for Curiosity.pdf
- Research Scavenger Hunt Note Catcher Handout—The Case for Curiosity - Spanish.docx
- Research Scavenger Hunt Note Catcher Handout—The Case for Curiosity - Spanish.pdf
- Research Scavenger Hunt Note Catcher Handout—The Case for Curiosity.docx
- Research Scavenger Hunt Note Catcher Handout—The Case for Curiosity.pdf

Materials

- Activity Slides (attached)
- Planning the Perfect Paper Handout (one per student)
- Research Scavenger Hunt Note Catcher (one per student)
- Computers, tablets, or smartphones with internet access
- Small slips of paper (one per student)
- Pens or pencils
- Paper

25 minutes

Engage

Use the attached **Activity Slides** to guide the activity. After you have displayed the title of the activity in **slide 2**, proceed to **slide 3**. This slide has intentionally been left blank, so that you can insert a link to an engaging video that is relevant to the club you are supervising.

Teacher's Note: Choosing the Right Video

When choosing a video for students to watch, consider the following factors:

- Is the video **relevant** to the subject matter discussed in your club?
- Will students find the subject matter **relatable**?
- Is it a **high-quality** video? Are the graphics good and is the text shown in the video free of typos?
- Does the creator of the video use **humor** and/or evoke **emotion**?
- Is the video **short** (under 5 minutes)?
- Is the video easy for students to **understand**?
- Does it tell an **engaging story**?

If you were able to check these boxes, you have selected an excellent video to share with students. As an example, consider watching the linked video. If you supervise a robotics club, you may want to share this with students.

Display **slide 4**. After watching the video, have students take out a sheet of paper and take 2-5 minutes to write responses to the following prompts in a modified 3-2-1 activity:

- What are **3** things that fascinated you in this video?
- What are **2** things you are interested to learn more about?
- What is **1** question you would ask the maker of the video in order to learn more about the things you're wondering about?

Take 5 minutes to ask students to share their responses to the 3-2-1. Make sure to move in order from the 3's to the 2's and finally to the 1's.

After a few students have shared some 1's, explain to them that they have already begun the research process without realizing it. They have encountered new information that has piqued their curiosity, and they have asked a single question with an answer that will enable people to draw new conclusions about a particular topic.

Ask students to take a few more minutes to reread the question they have written and to consider how, if at all, they would rephrase it if they wanted to write a research paper addressing this question. Call on a few volunteers to describe how they went about rephrasing their questions.

Display **slide 5**. Introduce students to the essential question. After you have explored the question, display **slide 6** and go over the learning objectives with students.

75 minutes

Explore

Teacher's Note: Preparing for the Scavenger Hunt

In the first portion of the Explore, you will be preparing students for a research scavenger hunt. During this activity, students will have the option of traveling either to your school's library or a community library. Once there, you will ask them to find a set number of printed and digital resources. Ideally, this activity will take place at the start of the next meeting of your club. However, depending on how frequently your club meets and how long each session of your club typically lasts, you may want to do the scavenger hunt earlier on and adapt the instructions to better suit your needs and the needs of your students.

Prior to the scavenger hunt, you will want to spend roughly half an hour reviewing research techniques with students. You want to first make sure that students understand the different types of questions they will need to ask over the course of their research.

Begin by asking students what they think makes a good research question. After you have taken a few minutes to hear their responses, display **slide 7**.

Introduce them to types of questions highlighted in the Stoplight Questions strategy. Instruct them to write down their research questions on a slip of paper. Once they have done so, collect the slips from students, and read each question for them. After reading an individual question, ask students to identify that question as ***red, yellow,*** or ***green,*** and to justify their choices. For ***red*** and ***yellow*** questions, ask students what they think it would take to turn those questions ***green***. For ***green*** questions, ask students why they regard them as high-quality research questions.

Once this class discussion has ended, display **slide 8**. Encourage students to revisit their research questions and take a few minutes to edit their questions so that they are better designed to guide the readers of their planned papers toward new conclusions on a variety of subjects.

Next, you will want to make sure that students recognize the difference between primary sources and secondary sources, and that they understand that it will be important to consult multiple examples of both as they attempt to answer their questions in writing. Display **slide 9** and share with students the brief video that will allow students to understand the differences between primary and secondary sources.

The last thing you will want to do prior to embarking on the scavenger hunt is to provide students with the criteria they will need to assess the credibility of the sources they will be locating. Display **slide 10** and introduce students to A-CLAP. Tell students that they should keep this handy acronym in mind as they encounter each resource at the library. Remind students to ask themselves with each resource they examine:

- Is the **author** listed, and if so, what are their qualifications?
- How **current** is the source?
- What is the author's **leaning**; do they present information in an objective manner?
- Is the source **accurate**?
- What is the **purpose** of the source?

When you are ready to begin the scavenger hunt, display **slide 11** before heading to the library. Tell students that they will have 30-45 minutes to find 3-5 printed media sources (at least one of each: books, magazine/newspaper articles) in the library catalog that they would use to answer their research questions. They will also need to find 1 or 2 digital media sources (i.e., Internet articles, blog posts) they would like to use.

Once you arrive at the library and are ready to begin the hunt, pass out a copy of the **Research Scavenger Hunt Note Catcher** to each student. Make sure to go over each of the columns (Author(s), Published Date, Article/Book/Website Titles, Notes, A-CLAP), so that students know what to write in each. As students hunt for sources, feel free to let them work in groups or on their own. Regardless of how they choose to work, make sure to check on students as they research, and be ready to answer any question they might have throughout the process.

30 minutes

Explain

Teacher's Note: Timing

Depending on when you decide to send students on the Scavenger Hunt, the Explain portion of the activity should ideally be started at the beginning of either the second or third session of the club to which you are devoting the exploration of research and writing skills.

Display **slide 12** and pass out the **Planning the Perfect Paper handout**. On both the slide and the handout, you will find a list of research and writing skills that were recommended by college and career coach Bill Leamon on p. 39 of his book, *College Success 101*. Take a few minutes to review these recommended skills with students. Ask students whether they have used any of these skills in the past and to imagine scenarios in which they might be able to use them in the future. Also, make sure to reassure students that they will only focus on the first three listed skills during this activity.

Advise students that they will create an outline that will help them organize ideas for their hypothetical papers. Before they begin to do so, display **slide 13**. They will watch a short video that will help them understand how to create the outline that works best for them.

Once students have watched the video, display **slide 14**, and make sure students have a good understanding of how a quality research paper should be structured. They will want to keep this structure in mind as they prepare to write their outlines.

Have students take out a piece of paper. At the top of the paper, they should write out the research question they have come up with. Beneath that question, they will have about 15 minutes to put their outlines together individually. As they are writing, feel free to walk around the room. Be prepared to answer any questions that students might have.

Optional Technology: Google

Google Docs and Google Drawings both contain features that students could use to organize their outlines. This will give them options for voice and choice in the creation of their outlines. Google could be used in lieu of students writing out their outlines on sheets of paper.

45 minutes

Extend

After students have finished writing their outlines, split them into pairs. Display **slide 15**. Run through the listed instructions. Explain to students that they have 5-10 minutes to read through their partner's outline. Let them know also that they are to try out an activity called Partner Speaks. As they read through their partner's outline, they keep the research question listed at the top in mind and check to see if each section of the outline succeeds in answering that question. They also check to see if their partner has succeeded in creating an outline that will enable them to write a paper with a good introduction, body, and conclusion.

After the review session has ended, have students turn to their partners and spend another 5-10 minutes answering the first three questions listed in slide 15. Each student will share with their partner if they think the outline will help them write a good research paper and if it succeeded in answering the research question. They will also provide their partner with constructive criticism, as they will highlight what they liked about the outline and what their partner could do to improve it (e.g., additional resources consulted, focus on additional ideas, etc.) in order to more adequately address their research question.

Next, devote 10-15 minutes to having each partner stand up in front of the class to answer the remaining two questions on slide 15. They will share their partner's research question with the class and explain what they have learned after reading their partner's outline. They will also summarize the topic of their partner's proposed paper to the rest of the group.

Teacher's Note: Reassuring Students

Make sure students remember that writing a paper is not easy. They should not feel upset or ashamed if they have trouble writing an outline, or if they find that the outline they have written does not adequately address their research question. Let students know that this is the purpose of Partner Speaks. Students are working in pairs to provide sound advice that will help each other improve their research and writing skills so that they will be well prepared for college. Consider encouraging students to take notes as they listen to the feedback of their partner, along with the feedback other partners are sharing with each other. You may want to ask students to spend an additional 5 minutes or so at the end of the Partner Speaks activity to make revisions to their outlines based on the feedback that has been provided.

10 minutes

Evaluate

Display **slide 16**. Explain to students that they will conclude this activity by completing a 5-10 minute Quick Write exercise during which they will write the first paragraph of their hypothetical papers.

Let students know that writing the first paragraph can often be the most challenging part of writing a paper. Reassure them that they should not worry. The object of a Quick Write is to write freely without worrying about grammar or what other people might think. If they had just a few minutes to share with someone why a topic interests them and why they think it is important for them to understand why their research question is worth asking, what would they write? Tell students that the Quick Write will be their chance to answer that question.

Teacher's Note: Planning for the Future

Let students know too that perhaps, later on in high school or college, they may have a chance to further pursue this research question in one of their courses, and they will have already begun a great deal of the preparation for a potential paper. For this reason, you may want to have students save their work to Google Drive, so that they can consult their outlines and introductory paragraphs later on.

After students have taken a few minutes to write their introductory paragraphs, either on pieces of paper or on their computers, review their Quick Writes and outlines as assessments and return them to students at a later date.

Research Rationale

Regardless of the focus of the extracurricular activity, club participation can lead to higher grades (Durlak et al., 2010; Fredricks & Eccles, 2006; Kronholz, 2012), and additional benefits are possible when these clubs explore specific curricular frameworks. Club participation enables students to acquire and practice skills beyond a purely academic focus. It also affords them opportunities to develop skills such as self-regulation, collaboration, problem-solving, and critical thinking (Allen et al., 2019). When structured with a strong curricular focus, high school clubs can enable participants to build the critical social skills and "21st-century skills" that better position them for success in college and the workforce (Allen et al., 2019; Durlak et al., 2010; Hurd & Deutsch, 2017). Supportive relationships between teachers and students can be instrumental in developing a student's sense of belonging (Pendergast et al., 2018; Wallace et al., 2012), and these support systems enable high-need, high-opportunity youth to establish social capital through emotional support, connection to valuable information resources, and mentorship in a club context (Solberg et al., 2021). Through a carefully designed curriculum that can be implemented within the traditional club structure, students stand to benefit significantly as they develop critical soft skills.

Resources

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