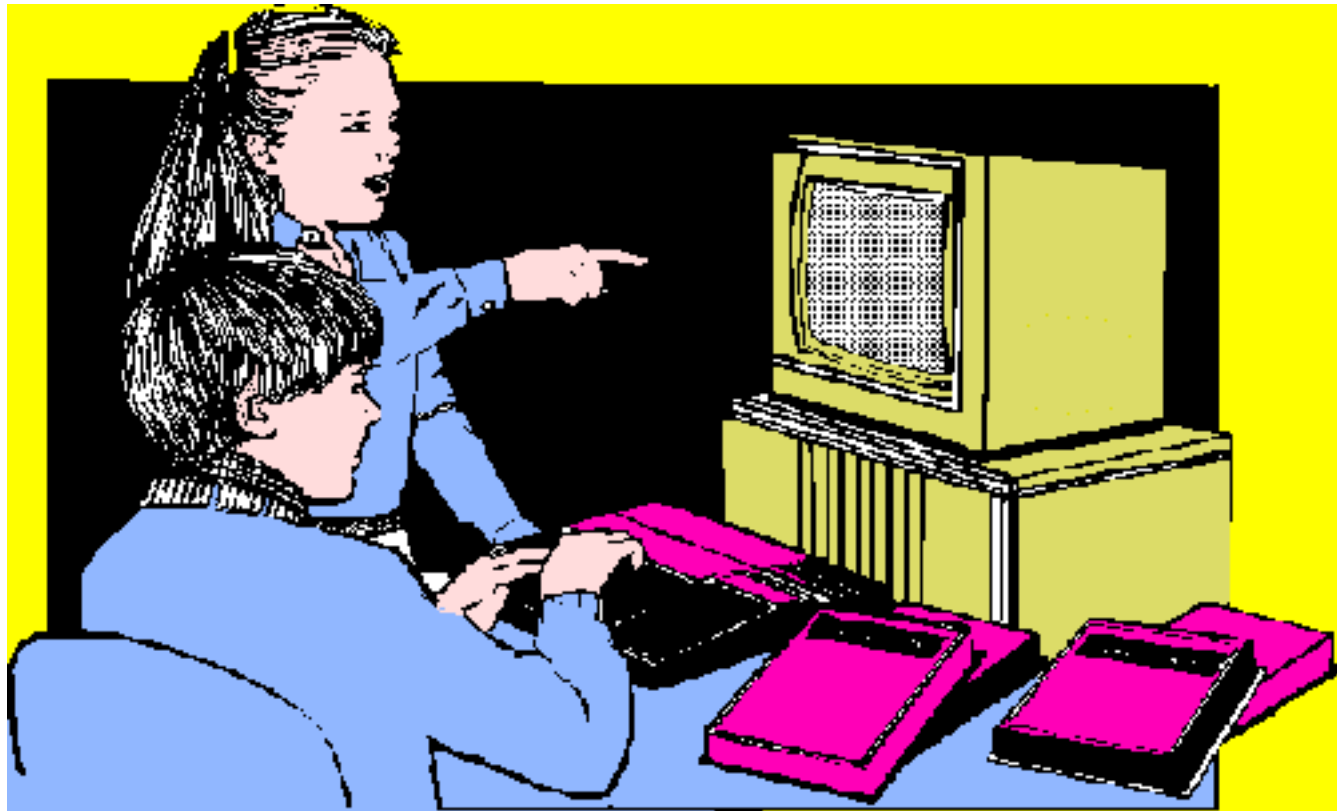


Student: Production Activities



Brainstorming

Activity Summary:

Brainstorming is a useful way of getting started on generating new ideas. It can be done as a class, in small groups, or by individual students. Once students are familiar with the process, they can use this technique on their own when they are stuck, revising their work, or moving on to a new phase.

Materials:

- Place for recording ideas where all can see (chalkboard, dry-erase board, chart paper, or a wall with stickies)
- Notebooks, Design/Idea Books, or Journals for keeping notes

What To Do:

1. Brainstorming begins with an idea-generating session. Students should generate as many ideas as possible, without evaluation or censorship. Quantity of ideas at this stage is more important than quality. Students should be encouraged to include wild ideas, new and different approaches, ideas that build on previous suggestions, and suggestions that have worked for them in the past. One person should be designated to record the ideas as they are given, preferably in a place where the whole group can read them. This session usually lasts about 5 to 10 minutes but may go for as long as 20 minutes.
2. In the same groups, or as a whole class, the students discuss the ideas generated and work to create a condensed list or a plan for moving forward. They can use questions such as the following to guide their discussion:
 - What does our list tell us about how we see this subject?
 - Are there areas or interests that are conspicuously absent from this list?
 - Do the ideas fit within our constraints (resources, time, access)?
 - Can new ideas be generated by looking at and discussing this list?
 - How should we go about selecting from this list?

Students may wish to sort the ideas by placing them into categories. De Bono suggests the following three: those of immediate usefulness, areas for further exploration, and new approaches to the topic.

3. Each group should keep a set of notes for future reference and follow-up. These notes can also help the teacher follow the progress of the group or individual students. If students are keeping Journals or Design/Idea Books, this would be a good time to ask for entries. In their journals, students might reflect on the process and the outcome of this exercise or respond to specific prompts from the teacher. For example, teachers might ask students to explain how they went about selecting a working set of ideas from their initial list, or to choose one idea and describe how they might envision carrying it out. In their Design/Idea Books, they could record the ideas generated;

their plan for going forward; ideas generated by this exercise that they may want to return to later in the project or use in a future project; and questions for the teacher, classmates, and mentors.

Notes to Teachers:

- Brainstorming can be used throughout the project when students are beginning a new phase or when individual students or groups feel stuck and in need of new ideas. It is a good tool for group facilitators, who can use it to focus the group or generate new ideas.
- There are many assessment opportunities in brainstorming sessions for students as well as teachers. It is a good time for groups or individual students to reflect on what to do next; and for students, in written assignments or notebook entries, to reflect on the groups and the projects, and to ask questions of the teacher.

<<http://pblmm.k12.ca.us/PBLGuide/Activities/brainstorm.html>> Adapted with permission from San Mateo County Office of Education.

Variations:

The following pages provide activities that use brainstorming.

Choosing a Topic

Activity Summary:

The purpose of this activity is to help students "warm up" by generating a number of ideas before choosing a topic. In this exercise the students and teacher establish an understanding of what's important in a topic choice, brainstorm and discuss topic ideas, and explore several suggestions for making the project relevant to real-world situations.

Materials:

- Materials for taking notes during the brainstorming session (such as chart paper, white board, chalkboard, or stickies)
- Brainstorming Activity
- Other relevant student work: Design/Idea Books, Project Journals
- For a discussion of balancing constraints and negotiables in topic selection, visit Forum piece: Constraints and Negotiables.

What To Do:

1. As a class, discuss the project constraints, such as subject or curriculum requirements, media or format requirements, the scheduled time frame, and the scope of the project.
2. The next step is to generate many ideas by brainstorming. For this session, students can work in their project groups, in groups of students working on individual projects, or as a whole class. The Brainstorming Activity has suggestions on organizing this activity and the ensuing discussion.
3. Finally, whether they are working individually or in groups, students select a topic. Below are several issues for teachers to consider as they help students with this process:
 - Once a list is generated, students may still have a hard time actually selecting a topic. They may need help identifying which topics/questions are the most meaningful to them and should be encouraged to think about how they can add something of themselves to the project. (How students selected their topic can be an interesting assessment question for a teacher/student conversation or a journal prompt.)
 - Teachers will want to maintain a comfortable balance between the project's constraints and the students' negotiables (i.e., what the students have to do and what they get to do) as students suggest unusual topics and creative approaches to the subject.
 - The way students frame their topics can have an impact on how they conduct their research, the perspectives they present, their analyses, and their conclusions. By framing their topics as questions, students can begin to think about where they are going with the subject and articulating what they find interesting about it. (Also see the Activity Variation below.)

Notes to Teachers:

- As they embark on researching their subject, students should be encouraged to refine or broaden their chosen topics. Some students may find that they need to reframe their topic questions; others may want to completely change their subject. Frequent and early feedback from peers, teachers, and mentors will help students to make the needed adjustments and work within the constraints of the project and their topic.
- Students can make connections between their projects and real-world practices by exploring how their topic is addressed by professionals in the field; by researching and implementing the production practices of professionals in their chosen media field; by selecting a topic that addresses a current or "unanswerable" question (also see the Activity Variation below); and by preparing a project for an "authentic" audience with a real interest in or practical use for the material (e.g., a book for second-grade readers, a lesson on environmental science for ninth graders, a presentation for a community organization).

Variations: "Unanswerable Questions"

Many real-world media presentations address topics that have no concrete answers. In this activity variation, students are encouraged to address questions in their projects without clear-cut answers and that require examining and presenting different perspectives. For example, a student who is interested in Mars might ask the question "Is there life on Mars?" instead of pursuing a straight informational search on the planet or explaining a scientific question with a clear-cut answer. Below are a series of questions for student and teacher discussions designed to familiarize students with the "practice of not knowing" and help them translate their own interests into "unanswerable" questions.

- How many subjects can you think of that have been researched and reported on that have no real answers or final conclusions? Try making a list.
- Why is it interesting and valuable to examine an unanswerable question?
- How is the unknown dealt with differently in textbooks, documentaries, and sensational TV shows? Try comparing and contrasting several examples (such as a PBS documentary or an episode of *Unsolved Mysteries*).
- What are some different ways of presenting questions that are unknown? How are content and style affected? Should the unknown parts be depicted dramatically or matter-of-factly? What perspectives should be included?
- Try brainstorming a list of current or unanswerable questions. Are these topics you are interested in? Try taking your own interests and reframing them as unanswerable questions.

<<http://pblmm.k12.ca.us/PBLGuide/Activities/ChoosingTopic.html>> Adapted with permission from San Mateo County Office of Education.

Constraints and Negotiables

Balancing between constraints and negotiables means, in Judy Logan's words, deciding what they have to do and what the students get to do. In every class, or for every project, there are different rules, conventions, goals, and outcomes; and every group of students brings different expectations, experiences, and demands. The balance between the "have to's" and the "get to's" in each class will influence both the process and the product. And although much of this balance is worked out between students and teachers without formal or deliberate negotiations, it might be worthwhile to examine the balance as an explicit part of the planning process.

Consistency and uniformity in student projects -- that is, high on "have to's" and low on "get to's" -- may be either the desired outcome or a necessity for many classes. Constraints may be related to limited time and equipment, curricular content or requirements, the type of product being produced, or the function of the activity. However, when diverse results and strong student expression are part of the goal, then increasing the role of "get to's" is necessary. But diversity and self-expression also require encouragement and a broad assessment plan.

Getting students to think creatively, expand their imagination, and explore new topics requires careful preparation. Topic selection may begin with activities in media literacy that examine the effectiveness and the message of current media samples or that draw attention to different ways of telling a story. Brainstorming topic possibilities as a class or in groups and discussing the range of topics related to the curriculum may generate new ideas for students. Students might also benefit from thinking about subjects from the perspective of other disciplines before choosing an approach.

Accepting different types of projects, with different scopes and different formats, requires that a flexible assessment system be in place, and that it be well understood by all. One possibility would be for the class to create a rubric based on their knowledge of media literacy and the particular curriculum requirements (the "have to's") while leaving implementation of the agreed-upon goals open to interpretation (the "get to's"). Multiple forms of assessment over the course of the project will allow for on-going feedback and a focus on the planning, design, and construction process as well as the final product. Accepting multiple revisions of plans and designs will also give students the opportunity to explore previously unfamiliar ground.

<<http://pblmm.k12.ca.us/PBLGuide/ThoughtPieces/Constraints.html>> Adapted with permission from San Mateo County Office of Education.

Beginning Research

Activity Summary:

Once students have chosen project topics, whether working in groups or independently, they may have trouble getting started on the research. This exercise will help them prepare a plan for researching their topics using brainstorming, group discussions, and progress updates (both oral and written). Teachers and peers will have the opportunity to review research plans and provide valuable feedback to the students. Teachers and students will also have documentation of students' early plans, for future comparisons, with their updated or final research plans to assess student progress.

Materials:

- Writing materials and paper for the brainstorming session
- Brainstorming Activity
- Notebooks, Design/Idea Books, or Journals for keeping notes
- Access to research materials (such as books, journals, newspapers, videos, the Internet, etc.)
- Access to people (such as mentors, professionals, community groups, librarians, etc.)

What To Do:

1. This activity should begin with a class discussion on research. Below are some suggested questions to ask students.
 - What is research? What is a research plan? What does research mean and involve in different professions? What are some research activities students are already engaging in?
 - What resources are available to the students in the school and in the community? What additional resources can they think of?
 - What are some specific research requirements they will need to meet for this project? What is a primary source? How many do they need? How many different sources and perspectives do they need to include (triangulation)? Are they required to interview someone?
2. Next, students brainstorm a list of research ideas. (Brainstorming Activity suggests ways to organize this exercise.) For this session, students could work in their project groups, in groups of students working on individual projects, or as a whole class. Students should be encouraged to think of new approaches to research, and there should be time for each project to be addressed.
3. In the discussion period following the brainstorming session, students or project groups create written plans for conducting their research. Even though their plans may change as they learn more about their subjects and become more familiar with the available resources, this plan will help them get started and serve as a guide. The following questions should be part of this discussion:
 - Are we getting more than one perspective on the subject?
 - What are the advantages of primary sources and secondary sources?

- Are we using enough/too many different sources?
 - Who else can we talk to about this topic?
 - Have we considered sources on the Web, in books, in newspapers, in journals, anywhere else?
 - How reliable are our resources?
 - Are we straying too far from our topic?
 - Are we asking the right questions?
 - How much work can we get done each day/week?
 - How will we know when we have enough information?
4. Peers and teachers can review or critique research plans using the questions above, and add additional suggestions or leads on research opportunities. Students/groups should feel free to narrow or refine their topics as they go.
 5. Students/groups should chart the progress of the research by keeping records of research ideas, their research plans, the research they have done, their bibliographies, and changes along the way in how they address their topics. These could be entries in Design/Idea Books or kept in a separate research notebook.

Notes to Teachers:

- As they begin researching their projects, students should be encouraged to refine or broaden their chosen topics. Some may find that they are asking the wrong questions, others may want to completely change their subject. Frequent and ongoing feedback from teachers and other students will help students make needed adjustments to their plans and help them stay within the constraints of the project and their topic.
- Teachers and students can compare student's notes (or entries in Design/Idea Books and Journals) as well as early drafts of the research plan with later work when assessing student progress.
- This activity does not need to be done by the whole class at the same time. To reduce problems of limited computer access, part of the class could begin this activity while others are engaged in learning a new technology.

Variations:

- There are several formats for students' presenting their research findings other than their final project. Before or after the completion of their projects, students could prepare and present their research findings in the form of a research paper, an oral presentation, a poster, etc.
- Students working in video should also think about what kind of video presentation they are preparing. Three common categories of video presentation are documentary (such as *National Geographic*), investigative (such as *60 Minutes*), and entertainment. Documentary and entertainment presentations require that you know your topic well before you start; for investigative research, you learn as you go.

<<http://pblmm.k12.ca.us/PBLGuide/Activities/BeginningResearch.html>> Adapted with permission from San Mateo County Office of Education.

Rapid Prototyping

Activity Summary:

Rapid prototyping is a way of generating many different solutions in a short period of time. Often prototypes can illustrate which features of a project will work and which will not work in a short amount of time. Rapid prototyping can be thought of as brainstorming with materials.

Materials:

A variety of materials for students to quickly "mock up" a variety of different designs. Newspaper, cardboard, tape, glue, magazines, cans, toilet paper rolls, egg cartons, and so forth can all be effective, depending on the project the students are doing.

What To Do:

- Encourage wild ideas, as in brainstorming.
- Give the students 20 to 30 minutes to design.
- Give students time, after they've created a series of possibilities, to evaluate the strengths and weaknesses of each design.
- Have the students write their findings in their journals.

Notes to Teachers:

One activity you could do to illustrate rapid prototyping is to design boats using aluminum foil (an activity that engineering students do at Stanford University). Have the students quickly prototype a series of different styles, and see which ones float. Then the students might conjecture about the principles involved in building a boat that floats.

<<http://pblmm.k12.ca.us/PBLGuide/Activities/RapidPrototyping.html>> Adapted with permission from San Mateo County Office of Education.

Making a Pitch

Activity Summary:

In this exercise students make a persuasive presentation of their project plan as a way of organizing the preproduction work they've done so far, getting peer and teacher feedback, and assessing their readiness to proceed with the project.

Materials:

Students will need any notes from previous planning sessions and any initial research they've done. They may also want to have a rapid prototype for their project or an example of something they are trying to emulate.

What To Do:

1. Discuss the concept of a pitch. A pitch is a persuasive presentation of a project plan. In preparing a pitch, each production team must work together to prepare a concise and persuasive presentation that includes some or all of the following:
 - a "high concept" statement (a two-sentence summary of the message)
 - a brief outline of how they will tell their story or message,
 - a research plan and/or some initial research
 - a rapid prototype of some aspect of their project
 - an example of something they are trying to emulate
 - a rough timeline for the project
 - a list of materials and equipment
 - a description of team staff, duties, and constraints
 - a definition of the audience
 - thoughts on why the project is a good idea and should be done
2. The pitch can be presented in written form, or in a presentation to the class. Students can imitate the real-world practice of making a pitch to producers and try to enhance their presentation with visual aids, music, dramatization, and audience participation.
3. Groups present their pitch and receive feedback from the class and teacher, including specific ideas for enhancing the project and comments on the overall feasibility of the production plan. Classmates can submit their comments in written form, or verbally, if there is a good forum for constructive feedback.

Notes to Teachers:

- This is an opportunity for teachers to assess students' readiness to proceed with their projects, and provide valuable feedback. Teachers or classmates may have the duty of approving the plan that is being presented. Teachers may wish to approve the pitch with special conditions to help students stay on track (e.g., "I approve the plan under the condition that you submit a production schedule to go with it").

- Students can use their Design/Idea Books to respond to and/or incorporate the recommendations they receive from the teacher and classmates. This is a way for students to assess the weaknesses and strengths of their planning thus far.

<<http://pblmm.k12.ca.us/PBLGuide/Activities/MakingPitch.html>> Adapted with permission from San Mateo County Office of Education.

Interviewing

Activity Summary:

Interviews can provide exciting links to real-world expertise and experiences. Students can use them as a background research tool, or interviews can be incorporated into the project itself. This activity helps students plan for the interview process and assess their own efforts.

What To Do:

1. Students should begin by defining what they want out of their interview(s) and then decide on who would be an appropriate interview subject. Students may wish to gather facts, opinions, or stories from professionals, community members, family members, teachers, or other students. Keeping the constraints of the project in mind, students should be encouraged to think broadly about what types of people and information they can access through interviews. Questions for students:
 - Are we seeking information? opinions? a good story? something else?
 - How will the information from the interview fit into and add to our project?
 - Who might have the information we need?
 - Of the people we could interview, who is available and willing?
2. Keeping in mind the information they wish to elicit from the interview, students prepare a list of topics or questions. It may be appropriate to do some background research on the interviewee or the subject to be discussed. Questions should be clear and open-ended, and should include follow-up questions for gathering in-depth information.
3. If videotaping their interview, students will have additional technical considerations. The Advice on Videotaping Interviews handout provides a list of reminders for before, during, and after the interview. If they are not video- or audio-taping the interview, students should discuss and make preparations for accurately recording the interview by hand, perhaps by having more than one note-taker and reading notes back to the interviewee.
4. Following each interview, students will benefit from reflection on the interview process and assessment of their efforts. In groups, students can review notes or video footage of the interview and discuss how things went. It may also be appropriate for other groups or the teacher to review and provide feedback on the interview. Questions for students:
 - What went well during the interview process?
 - What could have gone better?
 - How can we plan to avoid the same problems in the next interview?
 - How was the interview useful to our project?

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