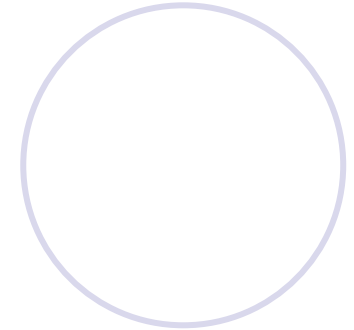
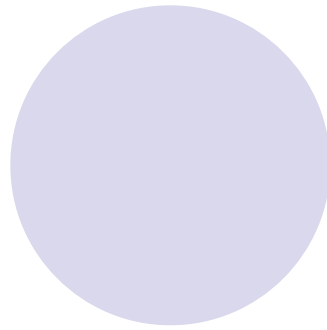
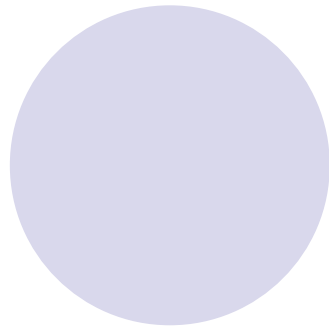


# THE CHARACTERISTICS OF SCHOLARLY RESEARCH



# What is authentic, scholarly research?

- A process of collecting, analyzing and interpreting information in order to increase our understanding of a problem (topic).
- We communicate what we discover to an audience—an authentic audience who would benefit from the findings or research.
- We create new knowledge or answer a question that was previously unanswered.
  - For example, a student who reads many sources about diabetes, designs a story board based on this information, and then creates a film about what he/she has read, is not doing authentic, scholarly research. Producing the film may demonstrate the student's creativity and skills, and the information in the film may summarize the main points of diabetes, but he/she has neglected to create any new knowledge. The audience for the film could have informed itself without the student's assistance simply by reading a book, visiting an Internet site or looking at another film.

*Research must begin with an unanswered question or an unsolved problem, not just a topic of interest.*

- The world is full of unanswered questions and unresolved problems. By asking questions, we ignite a chain reaction, which leads to research.
  - *Collecting the facts of Jefferson's life doesn't solve a problem. These facts are readily available to anyone in a range of formats. Determining Jefferson's view of an ideal university and then comparing that view to the stated ideals of the University of Virginia today would assist their administrators, instructors, and students to (1) assess how history has affected the evolution of the University (2) determine whether Jefferson's ideals align with decisions and policies.*



*Research must have a goal in mind.*

- Researchers seek not just to educate themselves but to solve problems. Researchers need to be able to state clearly what problem they will solve.
- If your problem already has a solution, why would you research it? Would you research a cure to a disease that already had a cure? As well, who will your research benefit? Who will be the audience you will enlighten? Who will benefit from the research of your “problem”?

*Research must be systematic and organized. Researchers need to plan extensively to collect, record, and interpret data. Research requires time.*

- Research is not a blind excursion into the unknown, with the hope that the data necessary to answer the question at hand will somehow fortuitously turn up. It is, instead, a carefully planned attack, a search-and-discover mission that is outlined in advance. Therefore, in addition to identifying the specific goal of your research, you must also identify HOW you propose to reach your goal. You must answer the following questions:
  - Where is the data?
  - Does any data already exist, and does it address the research problem?
  - If the data to solve your problem exists, do you have access to it?
  - What will you do with the data once you have it in your possession?
- Each of these questions must be answered early on to determine if you even have a chance to solve/answer your problem.


*Researchers develop hypotheses and theories, testing their validity as they gather data that either supports or does not support these hypotheses. These hypotheses are perpetually refined or replaced with new ones. Hypotheses guide the research process.*

- *If a student sets out to research whether caffeine consumption is a health problem for teenagers, the student will start with certain hypotheses that will guide the research plan.*
  - *S/he may theorize that the proliferation of Starbucks and other coffee houses has increased coffee drinking among teens.*
  - *S/he may theorize that teens consume more caffeine from coffee than from soft drinks.*
  - *S/he may theorize that affluent teens consume more caffeine than other teens because of the high prices of coffee.*
- *As the student gathers data, s/he may discover weak or strong supports for the hypotheses. As hypotheses are tested, the research plan will need to be adjusted.*



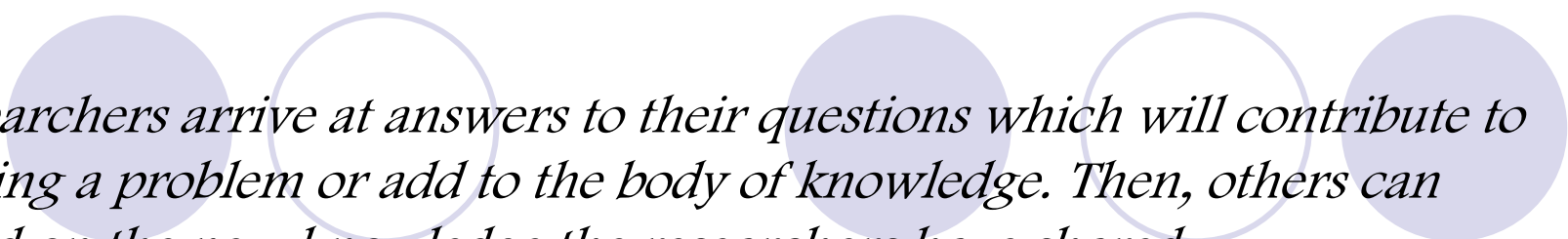
# A word about hypotheses...

- You go home after dark, open the front door, and reach inside for the switch that turns on a nearby table lamp. Your fingers find the switch. You flip it. No light. At this point, you begin to construct a series of reasonable guesses—hypotheses—to explain the lamp’s failure:
  - The bulb has burned out.
  - The lamp is not plugged into the wall outlet.
  - A late afternoon thunderstorm interrupted the electrical service.
  - The wire from the lamp to the wall outlet is defective.
  - You forgot to pay your electric bill.
- Each of these “guesses” sends you in a particular direction to research in order to solve the problem. You need to “research” to gather information to solve the problem and fix it. In other words, you look for data that will support one of your hypotheses and simultaneously allow you reject others. So,
  - You replace the bulb. The lamp fails to light. (Hypothesis 1 is rejected.)
  - You see that the cord is indeed plugged in. (Hypothesis 2 is rejected)
  - You look and see that all of your neighbors have electricity. (Hypothesis 3 is rejected)
  - You lift the electrical cord, and the lamp briefly flickers. The connecting cord is defective. (Hypothesis 4 is supported.)
  - You don’t need to address hypothesis 5 because #4 solved the problem.
- In research, hypotheses are generally accepted or rejected.



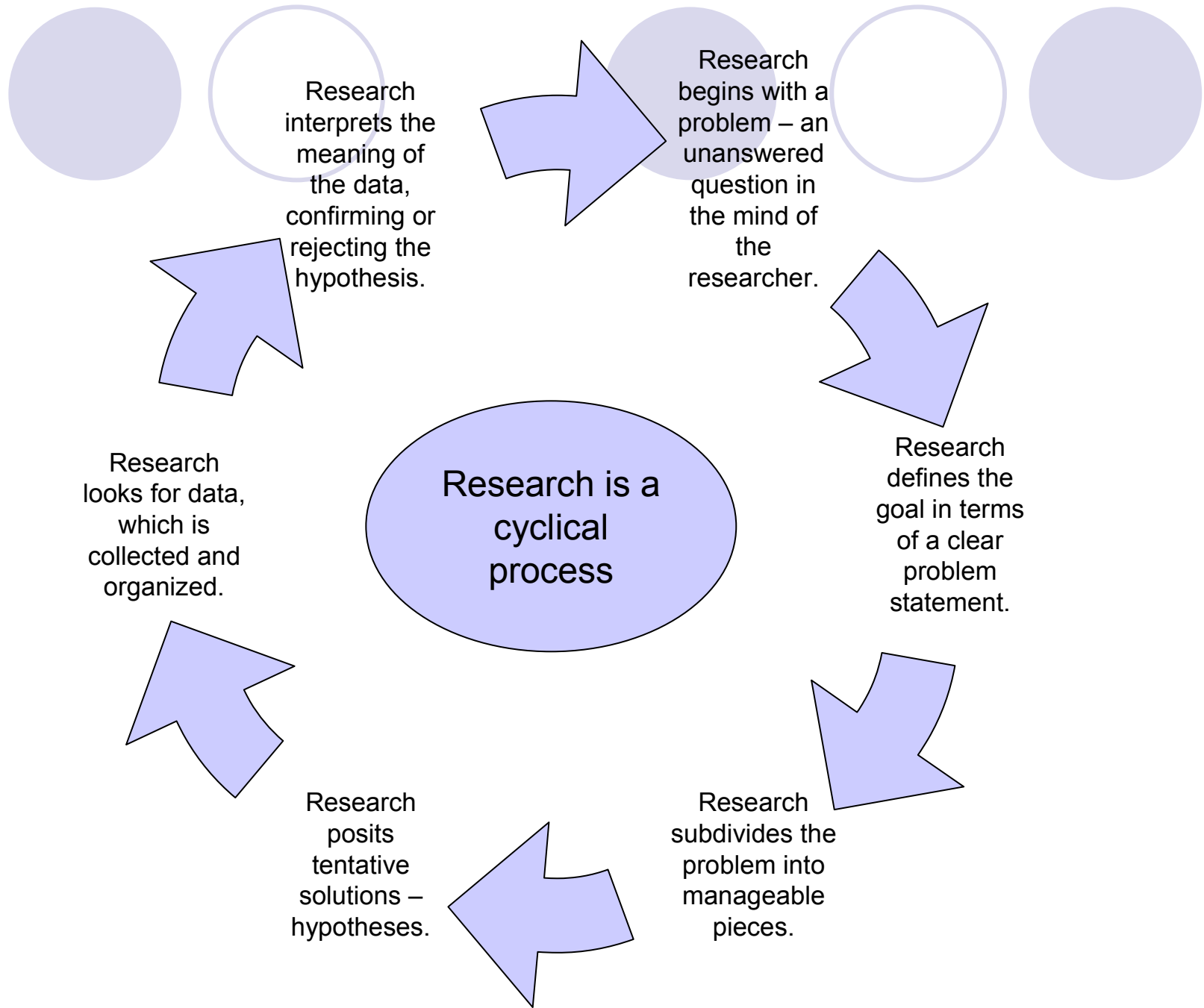
*Researchers examine their own assumptions and focus them explicitly, so others can accept or question the validity.*

- The assumptions that we make must be valid or else the research that we do is rendered meaningless.
- *If a student researches the strategies a first-grade teacher could use to decrease bullying in classrooms, the student assumes that first-graders are able to recognize bullying when they see it.*



*Researchers arrive at answers to their questions which will contribute to solving a problem or add to the body of knowledge. Then, others can build on the new knowledge the researchers have shared.*

- Answers to research questions need to be shared with others. Researchers are part of a community that is literally growing knowledge. The knowledge researchers grow by collecting data, examining phenomena, asking questions, forming and refining hypotheses should then have an application that makes it meaningful or useful to others.
  - “Why does this matter to someone other than you?”



# Research Reports vs. Research Papers

- Reports are generally a description of a topic. The writer is presenting some else's ideas.
  - Topic: “Pollution in our Hometown River”
- Papers (like our synthesis paper) involve proving a theory, taking a stand, and discussing relationships in the data.
  - Topic: “Pollution in our Hometown River: The Long-Term Effects of Excess Nutrients on the Health of Howard County Drinking Water”