Welcome to the Purdue OWL

Contributors: Dana Lynn Driscoll, Allen Brizee.
Summary:

Primary research involves collecting data about a given subject directly from the real world. This section includes information on what primary research is, how to get started, ethics involved with primary research and different types of research you can do. It includes details about interviews, surveys, observations, and analysis.

What is Primary Research and How do I get Started?

Primary research is any type of research that you go out and collect yourself. Examples include surveys, interviews, observations, and ethnographic research. A good researcher knows how to use both primary and secondary sources in her writing and to integrate them in a cohesive fashion.

Conducting primary research is a useful skill to acquire as it can greatly supplement your research in secondary sources, such as journals, magazines, or books. You can also use it as the focus of your writing project. Primary research is an excellent skill to learn as it can be useful in a variety of settings including business, personal, and academic.

But I'm not an expert!

With some careful planning, primary research can be done by anyone, even students new to writing at the university level. The information provided in this handout will help you to get started.

What types of projects or activities benefit from primary research?

When you are working on a local problem that may not have been addressed before and little research is there to back it up.

Example: you are conducting research on a proposed smoking ban in Lafayette, IN. Little information has been published about the topic other than a few editorials and letters to the editor in the local paper. You can conduct primary research in the form of surveying individuals in the surrounding community and local decision makers to gain more information.

When you are working on writing about a specific group of people or a specific person.

Example: if you are writing about the activities of the Purdue Football team one of the best ways to learn about the team is to go talk to them and observe their behavior.

When you are working on a topic that is relatively new or original and few publications exist on the subject.

For example, if you wanted to write on the connection between the Purdue University Glee Club performance locations and estimated attendance of events, you would have to determine this yourself through primary research methods.

You can also use primary research to confirm or dispute national results with local trends.

For example, if you are writing about people's opinions on Social Security reform, you could conduct a local survey and see how your local results compare to a nationwide survey conducted by the New York Times.

What types of primary research can be done?

Many types of primary research exist. This guide is designed to provide you with an overview of primary research that is often done in writing classes.

Interviews: Interviews are one-on-one or small group question and answer sessions. Interviews will provide a lot of information from a small number of people and are useful when you want to get an expert or knowledgeable opinion on a subject.

Surveys: Surveys are a form of questioning that is more rigid than interviews and that involve larger groups of people. Surveys will provide a limited amount of information from a large group of people and are useful when you want to learn what a larger population thinks.

Observations: Observations involve taking organized notes about occurrences in the world. Observations provide you insight about specific people, events, or locales and are useful when you want to learn more about an event without the biased viewpoint of an interview.

Analysis: Analysis involves collecting data and organizing it in some fashion based on criteria you develop. They are useful when you want to find some trend or pattern. A type of analysis would be to record commercials on three major television networks and analyze gender roles.

Where do I start?

Consider the following questions when beginning to think about conducting primary research:

- What do I want to discover?
- How do I plan on discovering it? (This is called your research methods or methodology)
- Who am I going to talk to/observe/survey? (These people are called your subjects or

participants)
- How am I going to be able gain access to these groups or individuals?
- What are my biases about this topic?
- How can I make sure my biases are not reflected in my research methods?
- What do I expect to discover?

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Ethical Considerations in Primary Research

Primary research is conducted all of the time--journalists use it as their primary means of reporting news and events; national polls and surveys discover what the population thinks about a particular political figure or proposal; and companies collect data on their consumer base and market trends. When conducting research in an academic or professional setting, you need to be aware of the ethics behind your research activity.

Here are some specific points to consider:

- You should have the permission of the people who you will be studying to conduct research involving them.
- Not all types of research require permission—for example, if you are interested in analyzing something that is available publicly (such as in the case of commercials, public message boards, etc) you do not necessarily need the permission of the authors.
- You don't want to do anything that would cause physical or emotional harm to your subjects. This could be something as simple as being careful how you word sensitive or difficult questions during your interviews.
- Objectivity vs. subjectivity in your research is another important consideration. Be sure your own personal biases and opinions do not get in the way of your research and that you give both sides fair consideration.
- Many types of research, such as surveys or observations, should be conducted under the assumption that you will keep your findings anonymous. Many interviews, however, are not done under the condition of anonymity. You should let your subjects know whether your research results will be anonymous or not.
- When you are doing research, be sure you are not taking advantage of easy-to-access groups of people (such as children at a daycare) simply because they are easy to access. You should choose your subjects based on what would most benefit your research.
- Some types of research done in a university setting require Institutional Board Approval. This means that your research has to be approved by an ethics review committee to make sure you are not violating any of the above considerations.
- When reporting your results be sure that you accurately represent what you

observed or what you were told. Do not take interview responses out of context and do not discuss small parts of observations without putting them into the appropriate context.

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Common Pitfalls of Primary Research

There are a few issues that researchers must confront all of the time. Here are some of the most common ones:

Over generalizing your results

It is impossible to make sweeping generalizations about groups of people based solely on a few interviews, observations, or surveys. You can find general patterns or trends, but should never assume that what you have found is what exists or what will always exist. In fact, it is hard to make concrete generalizations about any occurrence that relates to people because people themselves are dynamic and situations are always changing.

Biased methodology

If you create a biased survey or ask biased questions, you'll get biased results. See the "creating good survey and interview questions" section for tips on how to make your questions non-biased.

Correlation does not imply causation

Remember that just because two results have a relationship between them does not necessarily mean that one causes another to occur. For example, although video games and violent behaviors are shown to have a link, it has not been proven that video games cause violent behavior (instead, it could be that individuals who are predisposed toward violent activity are drawn to violent video games).

Not considering other related factors

It is very difficult to be able to study all the factors that relate to a specific group of people, an event, or an occurrence. Even so, if you do not include these factors within your primary research, they should still be considered when you begin to analyze your data. For example, if you are studying the parking issue on campus and look at the amount of cars being parked on campus vs. the student population, you are omitting other factors like the amount of commuter students, the number of faculty who drive, accessibility of public transportation, as well as many other factors.

Being able to know what data is valid

Some participants in your research may not take it seriously and will provide silly, inaccurate answers or engage in purposely aberrant behaviors. This most likely occurs with surveys that individuals complete but occasionally can occur during interviews or even with observations. These answers can throw off your entire research project, so it is very important that you examine your surveys or interviews for this type of erroneous information. If you find information that is highly questionable, it is best to not include it in your analysis of results.

Reported behavior vs. actual behavior

What people report as their behavior might not actually be how they behave. People will often report their own behavior in a more positive light than it may actually be. For example, if you are surveying college students about their study habits, they may report that they study for more hours than they actually do.

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Interviewing

Interviewing is a great way to learn detailed information from a single individual or small number of individuals. It is very useful when you want to gain expert opinions on the subject or talk to someone knowledgeable about a topic.

Types of Interviewing:

Several different types of interviews exist. You should choose one based on what kind of technology you have available to you, the availability of the individual you are interviewing, and how comfortable you feel talking to people.

Face to Face Interviews: Face to face interviews are when you sit down and talk with someone. They are beneficial because you can adapt your questioning to the answers of the person you are interviewing. You will need recording equipment for the interview, and it is highly recommended that you bring two recording devices with you in case one fails.

Phone Interviews: Phone interviews can be used when you need to interview someone who is geographically far away, who is too busy to meet with you to talk, or who does not want to use Internet technology. You have to purchase a special recording device for use with most phone systems.

Email Interviews: Email interviews are less personal than face-to-face or phone interviews, but highly convenient for most individuals. You may not get as much

information from someone in an email interview because you are not able to ask follow-up questions or play off the interviewee's responses. However, email interviews are useful because they are already in a digital format.

Chat/Messaging Interviews: It is also possible to interview someone via an instant messaging service such as MSN Messenger, ICQ, or AOL Instant Messenger. These interviews allow you to talk to people at great distances and give you the benefit of adapting your questioning based on the responses you receive. Some people are not fluent at typing, however, so you may not get as lengthy responses from this option.

Setting up an interview

When setting up an interview, be sure to be courteous and professional. Explain to the person being interviewed who you are, what you want to talk them about, and what project you are working on. Don't be discouraged if not everyone you contact is willing to be interviewed.

Interview do's and dont's

When conducting interviews…

- **Do** be careful of the types of questions you ask. See the "Creating good survey and interview questions" section for more information.
- **Do** start the interview with some small talk to give both yourself and the person you are interviewing a chance to get comfortable.
- **Do** bring redundant recording equipment in case something happens to one of your recording devices.
- **Do** pay attention to what is being said during the interview and follow up responses that sound interesting.
- **Do** come to the interview prepared. You should learn as much as you can about the person you are going to interview before the interview takes place so that you can tailor your questions to them.
- **Don't** pester or push the person you are interviewing. If he or she does not want to talk about an issue, you should respect that desire.
- **Don't** stick to your questions rigidly. If an interesting subject comes up that relates to your research, feel free to ask additional questions about it.
- **Don't** allow the person you are interviewing to continually get off topic. If the conversation drifts, ask follow-up questions to redirect the conversation to the subject at hand.

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Surveying

Surveying is a great way to discover what a large amount of people think about a particular issue or how a group of people report their behavior. Surveys can be done on a large range of topics and can be conducted relatively easily.

Things to consider when conducting surveys:

Who are you planning on surveying? Decide what group you are going to focus on surveying based on who you have access to and what your research is focused on.

How many people are you going to survey? You want to choose a target number of surveys to conduct. You don't want too few surveys because you won't have enough answers to support any generalizations or findings you may make. At the same time, you do not want too many surveys because you will be overwhelmed with analyzing your data.

How are you going to survey people? You can choose to conduct your survey in person (i.e. walk up to people and ask them questions); on paper (i.e. hand out surveys and ask people to return them); or even via the Internet. The survey method should be chosen based on the length of your survey and types of questions.

How long is your survey going to be? The answer to this question depends on what information you are attempting to discover and how much you want to find out. Longer surveys sometimes involve the same question asked in multiple ways to see if people are consistent in their answering strategies. For your first survey, however, it is better to keep things simple. Short questions are usually more effective than longer ones.

What type of questions are you going to ask? Do you want open-ended questions or closed questions? Open-ended questions are questions that allow the participant any type of response. An example of an open-ended question is: How are you feeling today? A closed question is one with a set of possible responses or yes/no responses. An example is: Did you feel that the new campus regulation about parking was fair? While closed questions are much easier to analyze they do not provide the rich responses you may get with open-ended questions. Ultimately, what type of question you ask depends on what you want to discover.

What questions are you going to ask? Carefully consider the wording of your questions. Please see the "Creating Good Interview and Survey Questions" section for more detailed information about creating good survey questions.

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Creating Good Interview and Survey Questions

If you are conducting primary research using surveys or interviews, one of the most important things to focus on is creating good questions.

When creating questions you want to avoid:

Biased questions

Biased questions are questions that encourage your participants to respond to the question in a certain way. They may contain biased terminology or are worded in a biased way.

Biased question: Don't you agree that campus parking is a problem?
Revised question: Is parking on campus a problem?

Questions that assume what they ask

These questions are a type of biased question and lead your participants to agree or respond in a certain way.

Biased question: There are many people who believe that campus parking is a problem. Are you one of them?
Revised question: Do you agree or disagree that campus parking is a problem?

Double-barreled questions

A double-barreled question is a one that has more than one question embedded within it. Participants may answer one but not both, or may disagree with part or all of the question.

Double-barreled question: Do you agree that campus parking is a problem and that the administration should be working diligently on a solution?
Revised question: Is campus parking a problem? (If the participant responds yes): Should the administration be responsible for solving this problem?

Confusing or wordy questions

Make sure your questions are not confusing or wordy. Confusing questions will only lead to confused participants, which leads to unreliable answers.

Confusing questions: What do you think about parking? (This is confusing because the question isn't clear about what it is asking--parking in general? The person's ability to park the car? Parking on campus?) Do you believe that the parking situation on campus is problematic or difficult because of the lack of spaces and the walking distances or do you believe that the parking situation on campus is ok? (This question is both very wordy and leads the participant.)
Revised question: What is your opinion of the parking situation on campus?

Questions that do not relate to what you want to learn

Be sure that your questions directly relate to what it is you are studying. A good way to do this is to ask someone else to read your questions or even test your survey out on a few

people and see if the responses fit what you are looking for.

Unrelated questions: Have you ever encountered problems in the parking garage on campus? Do you like or dislike the bus system?
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Observing

Observations are a type of primary research that involves spending time watching people or other creatures interact with each other and the world around them. Observations are used in nearly every scientific field and can be incredibly useful in gathering information.

Types of Participation

Before observing, consider how you as an observer may alter the event being observed.

- How fully will you participate in the event?
- Will you simply sit, watch, and take notes with no interaction?
- Will you interact with the participants?
- Will you become a participant yourself?

These different choices can radically change what you end up observing. The mere presence of an observer may alter the events--and if you interact with participants, you further risk changing what takes place. The other side to this is that by not participating in an event, you may not gain a complete understanding of that event.

How to Observe

When observing, it is especially important to separate observations from your feelings or reactions to observations. A good way to do this is to take your observations in a double-entry notebook. A double-entry notebook has two columns, one for what is directly observed and one is for what the observer interprets from the events. Here is an example:

Observation: The teacher walks around the circle and speaks to each student individually.

Interpretation: The teacher seems to want to make sure that each student understands the assignment.

If you are observing a group that is not found in public (such as a group of card players, a sports team, or a special-interest group), it may be wise to plan to spend multiple sittings with the group. This will allow the group some time to adjust to your presence (and hence, for you to get more accurate observations).

Recordings vs. Note-taking

How will you be observing? Will you be taking notes in a notebook? With a laptop? Will you be recording your observations in some way (with a digital camera, video camera, digital recorder, etc?

How you choose to observe is another important consideration that can affect the quality and results of your observations. Remember that you cannot capture everything that takes place with a recording or by even by taking detailed notes.

What to Observe

Observational skills require some practice! The key to being a good observer is to pay attention to the details of a situation, write as much as you can, and write it as detailed as possible.

Before you observe, you should consider how you will focus your observations--because you can't focus on everything!

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Analysis

Analysis is a type of primary research that involves finding and interpreting patterns in data, classifying those patterns, and generalizing the results. It is useful when looking at actions, events, or occurrences in different texts, media, or publications. Analysis can usually be done without considering most of the ethical issues discussed in the overview, as you are not working with people but rather publicly accessible documents. Analysis can be done on new documents or performed on raw data that you yourself have collected.

Here are several examples of analysis:

- Recording commercials on three major television networks and analyzing race and gender within the commercials to discover some conclusion.
- Analyzing the historical trends in public laws by looking at the records at a local courthouse.
- Analyzing topics of discussion in chat rooms for patterns based on gender and age.

Methods

Analysis research involves several steps:

- Finding and collecting documents.
- Specifying criteria or patterns that you are looking for.
- Analyzing documents for patterns, noting number of occurrences or other factors.

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Analyzing Your Primary Data

Now that you've collected your primary data, its time to figure out what that data means and what you can learn from it. The keys when analyzing your data is to pull out information that is the most pertinent to your writing, information you can highlight and discuss, and information that will support your claims (if you are making any).

Interviews

Interviews are fairly easy to analyze, as you simply have to go back through the answers you received and decide how to use them within your writing. You can group the answers into categories and create a chart of how those answers may best fit within your paper or article.

If you recorded the interview with a tape or digital recorder, you may want to listen to it and type a transcript of the interview. Since transcription is a tedious process, only use this option if you need to.

Surveys

When analyzing surveys, you want to get the raw data into form that you can manipulate. If you were using a numerical system or yes/no answer system for your survey, you may find it helpful to enter the results into a spreadsheet program such as Microsoft Excel. If the survey was an open-ended question style, see if you can fit your answers into categories of responses.

Observations

Observations are more difficult to analyze because when you are taking notes, you often write down everything that you see. Start by organizing your notes into categories or by some criteria. Once you have everything organized, see if you can make some generalizations about what you have observed.

Over-generalizing your results

Your first attempts at primary research will most likely include small groups of people

and may not be representative of the population as a whole. It is important to remember not to over-generalize your findings--in other words, don't assume that your findings are necessarily true of every person within the group or every person in a society.

Triangulation of Data

One of the benefits of combining primary research with secondary research is in the area of data triangulation. Data triangulation is when a piece of data, a finding, or a generalization is able to be verified with several different research methods. This helps add to your credibility and makes your findings stronger.

For example, you are studying binge drinking on campus. You find national averages that indicate that 45% of college students binge drink nationwide. You conduct your own research at the Purdue campus. You find that 47% of the individuals you surveyed drink; you also interview a counselor on campus who reports that approximately 1/3 of the students who he sees suffer from a drinking problem. Thus, your results from an interview with an expert and your own survey support the national averages.
