

Chapter 1 : - Steps for Planning, Conducting and Analyzing an Experiment | STAT

*Planning and conducting applied research [Chris O Andrew] on www.nxgvision.com *FREE* shipping on qualifying offers.*

Learn about the need for effective advocacy research, and gain skills in conducting such research, in order to be able to back up your statements with facts and statistics. What do we mean by conducting research? Why should you do advocacy research? When should you do advocacy research? How do you conduct research? There are all kinds of advocacy. Your goal may be to raise the profile of an issue, to provide for the needs of a particular segment of your community, to protect citizens from physical or economic harm, to stem a disease before it becomes epidemic in the area, or to expose and oust a corrupt official, among others. You may be concerned with human services, health care, education, the environment, economic development, political issues, human rights, or the overall physical, social, and economic health of your community. You may be trying to influence legislators and other policy makers, to hold officials and corporations accountable for their actions, to change the behavior or methods of health and human service providers, or to increase cultural awareness and competence among all members of the community. How many working people in your community have no health insurance? What exactly is that company dumping into the river, and what effects does it have? How do you know that the grant-funded program you want to continue has been effective? Where are you going to get the material for that fact sheet you need for the public meeting on Friday? That could mean anything from combing through piles of documents in the stacks of a library to taking photos and talking to witnesses. Some of your searching may be tedious, and some may be exciting, but all of it will involve work. The word "research" often conjures up images of someone sitting in a library squinting at a large book with very small print, or hovering over a beaker of nasty-looking liquid in a chemistry lab. The question may be relatively simple: What percentage of people who visit the community health clinic have no other way to get medical treatment? It may also be extremely complex: Different kinds of questions require different kinds of answers, and different kinds of answers require different kinds of research to ferret them out. Knowing what you need is the first step. What effects does it have on humans? Why use this method instead of that one? Why ban this substance in food products? Research encompasses all these methods and more. What kind of research you should do depends on what and what kind of information you need. Research can help you toward this goal in several ways: Research gives your advocacy substance. Your research adds facts and statistics to your belief and passion. Research gives you new information to help make your case. It will also help you determine how much funding is needed, approximately how long it will take to see results, and the likely consequences of doing nothing. As this item indicates, your research will probably serve multiple purposes. It may help you plan and design your effort as well as advocate for it. As an advocate, you have to know exactly what to advocate for. What affects the issue in an experimental situation? The answers to these and similar questions will put you in a position to choose and advocate for strategies that are apt to be effective. Research can provide you with anecdotes and examples to use. While statistics are most convincing in certain situations, one actual example is often more powerful than reams of data, because it makes the issue immediate and real. Research can confirm what you were already sure of. Research allows you to make cost-benefit arguments. Research will tell you the costs of both alternatives and the success rates of both at keeping people from returning to jail. The math works this way: Research gives you credibility. If you do your research well, it identifies you as a serious advocate who does the groundwork before you try to convince people of your position. It will make people more willing to listen to you, and to believe what they hear. Research can short-circuit the opposition. Research sets you up as the expert on the issue. If you become known as the one with the right answers, people - legislators and other officials, concerned groups, the general public - will come to you with their questions and concerns. Any advocacy requires some basic research, but there are times when research is particularly valuable. To show the need for the legislation. Federal funding for AIDS research increased when advocates were able to demonstrate that the disease had reached epidemic proportions, and that it affected not only gay men, but other segments of the population as well. Similarly,

adult literacy advocates in Massachusetts were able to secure a commitment to adult education and an increased funding appropriation when they presented legislators with a list of more than 13, people on waiting lists for programs around the state. To show public support for proposed legislation. If you can demonstrate - through surveys, interviews, or other means - that the public backs your effort, it puts you in a much stronger position. What percent of teens drop out of high school in the community, and how does that compare to other, similar communities? Have there been increases in homelessness over the past year, or the past several years? Are there more homeless families than there were? Has youth violence increased in the community, and, if so, who are its victims? Mark Twain said that "there are lies, damned lies, and statistics. If there has been a five-year upward trend in homelessness, for instance, one group may state that and stop there, while another may point out that the trend in fact peaked three years ago, and has been heading downward since. So two groups, using the same statistic, can come to different conclusions: You should never have to argue about whose numbers are "right. Even one is too many, and we have

When important programs or services or whole groups of people are under attack Some examples: Food stamps and fuel assistance programs are often characterized by opponents as "unnecessary. Immigrants may be blamed for employment shortages, when in fact those shortages are usually the result of economic trends and factors that have little to do with immigration. Furthermore, many immigrants take jobs that employers have difficulty filling - low wage, dirty, and physically demanding migrant labor, for example. Your research can demonstrate that those who accuse immigrants of responsibility for unemployment actually have no argument. When government officials are corrupt or otherwise guilty of wrongdoing Research can serve to find the proof that exposes corrupt, dishonest, or unethical officials. From the small town treasurer who helps herself to a few thousand dollars from municipal funds to Richard Nixon, whose coverup of the Watergate break-in cost him the Presidency, officials who violate the law are generally caught by careful research rather than by some dramatic event. When government or another entity is lying to the public At some times, there are things the public, even in a democratic society, should not know. If, in World War II, the press had routinely published the locations of Allied ships, for instance, the enemy would have been extremely pleased - and the ships in question would have been sunk. When the government or another entity lies to the detriment of the public good, however, or to protect itself politically, that is another matter. Cigarette manufacturers for years produced phony scientific studies that "proved" that smoking was harmless and non-addictive, while reputable scientists invariably found the opposite. During the Reagan administration in the U. Ultimately, Watt became such a political liability that he had to be replaced. Had no one bothered to check his accuracy, he could have continued to misrepresent environmental issues for political reasons, at the expense of the public interest. Looking into the effects of proposed government policies can save citizens from unfortunate social or economic consequences Research into the relationships among corporations, accounting firms, and Wall Street analysts could perhaps have saved investors from such financial disasters as the collapse of Enron, one of the largest American corporations. Many thousands of middle-income citizens lost their retirement money in that debacle, either directly or through pension fund investments. How do you do research? There may be many possibilities for assistance out there. Academics or other experts. Depending on what you need to find out, help may be as close as the relevant department of a local university. If, for instance, you need to understand the chemistry of a pollutant, a chemistry grad student or professor may be more than willing to help. Libraries are obviously great sources of information, and librarians are usually both eager and able to help. They, too, may be able to save you enormous amounts of time. Many of the biggest news stories of past decades - the questions about American intelligence gathering before the Sept. Most reporters would love the chance for a big story, and they have vast information resources available. If you suspect that someone might be violating professional ethics, find out whether that profession has a formal code of ethics, and study it carefully. Consult an attorney or legislator, a science teacher, your brother-in-law - whomever you can find that actually knows about the area you need to understand. Some common reasons for advocacy research: To call public attention to an issue. In this case, you might look for information statistics or anecdotes that will help people understand how the issue relates to their community. To demonstrate public support for an issue. A survey could show that the community overwhelmingly supports funding for a new school, for instance. To guide your advocacy efforts.

Survey results that tell you what the public, or particular segments of the public, actually think about an issue will help you decide how to approach it. This is a situation in which your research must be, as we mentioned before, impeccable.

Chapter 2 : Applied Research

3 Applied Research Design A Practical Approach Leonard Bickman Debra J. Rog The chapters in this Handbook describe several approaches to conducting applied social research, including experimental studies (Boruch, Weisburd, Turner, Karpyn).

Scientific research involves a systematic process that focuses on being objective and gathering a multitude of information for analysis so that the researcher can come to a conclusion. This process is used in all research and evaluation projects, regardless of the research method scientific method of inquiry, evaluation research, or action research. The process focuses on testing hunches or ideas in a park and recreation setting through a systematic process. In this process, the study is documented in such a way that another individual can conduct the same study again. This is referred to as replicating the study. Any research done without documenting the study so that others can review the process and results is not an investigation using the scientific research process. The scientific research process is a multiple-step process where the steps are interlinked with the other steps in the process. If changes are made in one step of the process, the researcher must review all the other steps to ensure that the changes are reflected throughout the process. Parks and recreation professionals are often involved in conducting research or evaluation projects within the agency. These professionals need to understand the eight steps of the research process as they apply to conducting a study.

Identify the Problem
The first step in the process is to identify a problem or develop a research question. The research problem may be something the agency identifies as a problem, some knowledge or information that is needed by the agency, or the desire to identify a recreation trend nationally. In the example in table 2. This serves as the focus of the study.

Review the Literature
Now that the problem has been identified, the researcher must learn more about the topic under investigation. To do this, the researcher must review the literature related to the research problem. This step provides foundational knowledge about the problem area. The review of literature also educates the researcher about what studies have been conducted in the past, how these studies were conducted, and the conclusions in the problem area. In the obesity study, the review of literature enables the programmer to discover horrifying statistics related to the long-term effects of childhood obesity in terms of health issues, death rates, and projected medical costs. In addition, the programmer finds several articles and information from the Centers for Disease Control and Prevention that describe the benefits of walking 10, steps a day. The information discovered during this step helps the programmer fully understand the magnitude of the problem, recognize the future consequences of obesity, and identify a strategy to combat obesity.

Clarify the Problem
Many times the initial problem identified in the first step of the process is too large or broad in scope. In step 3 of the process, the researcher clarifies the problem and narrows the scope of the study. This can only be done after the literature has been reviewed. The knowledge gained through the review of literature guides the researcher in clarifying and narrowing the research project. In the example, the programmer has identified childhood obesity as the problem and the purpose of the study. This topic is very broad and could be studied based on genetics, family environment, diet, exercise, self-confidence, leisure activities, or health issues. All of these areas cannot be investigated in a single study; therefore, the problem and purpose of the study must be more clearly defined. This purpose is more narrowly focused and researchable than the original problem.

Clearly Define Terms and Concepts
Terms and concepts are words or phrases used in the purpose statement of the study or the description of the study. These items need to be specifically defined as they apply to the study. Terms or concepts often have different definitions depending on who is reading the study. To minimize confusion about what the terms and phrases mean, the researcher must specifically define them for the study. The concept of physical health may also be defined and measured in many ways. By defining the terms or concepts more narrowly, the scope of the study is more manageable for the programmer, making it easier to collect the necessary data for the study. This also makes the concepts more understandable to the reader.

Define the Population
Research projects can focus on a specific group of people, facilities, park development, employee evaluations, programs, financial status, marketing efforts, or the integration of technology into the operations. For example, if a researcher wants to examine a specific group of people in the community, the

study could examine a specific age group, males or females, people living in a specific geographic area, or a specific ethnic group. Literally thousands of options are available to the researcher to specifically identify the group to study. The research problem and the purpose of the study assist the researcher in identifying the group to involve in the study. In research terms, the group to involve in the study is always called the population. Defining the population assists the researcher in several ways. First, it narrows the scope of the study from a very large population to one that is manageable. This helps ensure that the researcher stays on the right path during the study. Finally, by defining the population, the researcher identifies the group that the results will apply to at the conclusion of the study. This narrower population makes the study more manageable in terms of time and resources.

Develop the Instrumentation Plan The plan for the study is referred to as the instrumentation plan. The instrumentation plan serves as the road map for the entire study, specifying who will participate in the study; how, when, and where data will be collected; and the content of the program. This plan is composed of numerous decisions and considerations that are addressed in chapter 8 of this text. In the obesity study, the researcher has decided to have the children participate in a walking program for six months. The group of participants is called the sample, which is a smaller group selected from the population specified for the study. The study cannot possibly include every 10-year-old child in the community, so a smaller group is used to represent the population. The researcher develops the plan for the walking program, indicating what data will be collected, when and how the data will be collected, who will collect the data, and how the data will be analyzed. The instrumentation plan specifies all the steps that must be completed for the study. This ensures that the programmer has carefully thought through all these decisions and that she provides a step-by-step plan to be followed in the study.

Collect Data Once the instrumentation plan is completed, the actual study begins with the collection of data. The collection of data is a critical step in providing the information needed to answer the research question. Every study includes the collection of some type of data—whether it is from the literature or from subjects—to answer the research question. Data can be collected in the form of words on a survey, with a questionnaire, through observations, or from the literature. In the obesity study, the programmers will be collecting data on the defined variables: The researcher collects these data at the first session and at the last session of the program. These two sets of data are necessary to determine the effect of the walking program on weight, body fat, and cholesterol level. Once the data are collected on the variables, the researcher is ready to move to the final step of the process, which is the data analysis.

Analyze the Data All the time, effort, and resources dedicated to steps 1 through 7 of the research process culminate in this final step. The researcher finally has data to analyze so that the research question can be answered. In the instrumentation plan, the researcher specified how the data will be analyzed. The researcher now analyzes the data according to the plan. The results of this analysis are then reviewed and summarized in a manner directly related to the research questions. In the obesity study, the researcher compares the measurements of weight, percentage of body fat, and cholesterol that were taken at the first meeting of the subjects to the measurements of the same variables at the final program session. These two sets of data will be analyzed to determine if there was a difference between the first measurement and the second measurement for each individual in the program. Then, the data will be analyzed to determine if the differences are statistically significant. If the differences are statistically significant, the study validates the theory that was the focus of the study. The results of the study also provide valuable information about one strategy to combat childhood obesity in the community. As you have probably concluded, conducting studies using the eight steps of the scientific research process requires you to dedicate time and effort to the planning process. You cannot conduct a study using the scientific research process when time is limited or the study is done at the last minute. Researchers who do this conduct studies that result in either false conclusions or conclusions that are not of any value to the organization. The above excerpt is from:

Chapter 3 : Planning and conducting a dissertation research project – University of Leicester

difference between basic and applied research lies in the time span between research and reasonably foreseeable practical applications. Exploratory research: a new problem can be structured and identified.

Steps in Planning and Conducting Research. Sir Isaac Newton explained gravity and planetary orbit. Louis Pasteur said the tiny bacteria can cause disease. Benjamin Franklin claimed that lightning All of these greats had something in common. They used scientific research to learn about the world. They took the knowledge they had acquired from others, came up with new ideas of their own, and tested them. These are all essential parts of what is called the scientific method. If we know how to conduct research, we can go about answering questions about the nature of the environment, medicine, human beings, animals, and a host of other topics. Conducting research helps us figure out cause and effect relationships. For example, which environmental conditions Which fertility treatments will help the most women get pregnant? Which cancer medicine shrinks tumors with the fewest side effects? Understanding research methods also makes us better consumers of research. What do you want to learn about? What relationship do you suspect there may be between phenomena? Select and define variables. Between which specific variables would you like to find a relationship? What population are you interested in studying? How can you observe the phenomenon in a controlled setting? Plan and conduct the research. What are the specific steps you will Analyze results and draw conclusions. How can you use your data to bolster or revise your hypothesis? How can you tell others what you have done, so that they can repeat and strengthen your results, or learn from your mistakes? The first step in research is to choose a topic and a general research design, which means figuring out what you want to learn about. Some of the most common types of research designs are observational, correlational, and experimental. Observational studies allow you to merely examine the nature of a particular construct, that is a variable that you are interested in. For example, you might be interested in determining what percentage of the population abuses alcohol. Correlational studies allow you to examine the relationship between two or more different constructs. For example, you might want to know whether alcohol use increases as depressed mood increases. Experimental studies allow you to examine the causal effects of one variable on another variable. For example, you might want to study whether drinking alcohol causes your motor reflexes to become slower. Next, identify your variables. A variable, sometimes known as a construct, is a special topic of interest that varies from person to person. A person can score high on your variable, or they can score low on your variable. Some examples of variables that are studied in the social sciences are intelligence, aggression, There are going to be some people who are extremely intelligent, some people who are of average intelligence, and some people who are of low intelligence. Next, you will need to ask a question that is scientific in nature. In other words, ask about the relationship between one variable and another. You could choose to ask questions such as, what is the impact of depression on family relationships. What is the impact of racial prejudice on juror perceptions? Or what is the impact of anxiety on memory? When creating your study, it is important to choose a topic that you can actually measure. If you were a botanist, it would be fairly easy to measure the effect of watering a plant on the plant's growth by controlling the amount of water you give the plant. Other studies, such as those in the social sciences, can be more complicated. Some populations, or constructs, need special considerations in order to be measured. One example of that would be if you were interested in examining how brain activity plays a role in depression. You would first need to make sure that you have a way of measuring brain activity before starting the study. Another example of that would be if you were interested in racial attitudes of jury members. You would want to have participants who are actual jurors, but that might not always be possible. An analog situation is essentially when you ask your participants to pretend that they are in a particular situation. So you might ask your participants to imagine that they are members of a jury, and to listen to the case before them, and then to answer a series of questions. What you might want to do, in these cases, And you could really, if you put enough money and time into it, you could really make your laboratory look very realistic. This is a hypothesis. A hypothesis is a prediction about how your variables of interest will relate to each other. Hypotheses should be based on previous research. And you want to now come along and

run an actual experiment to look at the causal relationship between these two things. So you want to ask the question, if people are anxious will that A hypothesis takes the form of an if then statement. In a correlational study, in which we are just observing, you may predict that if a certain condition exists, then it is more likely, or less likely, for some other condition to exist. In an experiment, you will be looking for cause and effect. So your hypothesis will be along the lines of, if a certain action or circumstance is imposed, then a certain outcome will take place. **Select and Define Variables.** Selecting and defining your variables is one of the most important steps in the research process, because choosing good variables, and good definitions of those variables, may make the difference between finding interesting results, and not finding anything useful. All experiments are made up of two different types of variables, independent variables, and dependent variables. The independent variable is a variable that is active in your research study. So for example, you could be interested in studying So you can bring people into the lab, and induce a mood in them-- a positive mood or a negative mood-- maybe through having them watch sad or happy movie clips. Your independent variable would be the mood state that you were inducing in your participants. In contrast, the dependent variable is a passive variable. So to use our example, the recall of the list of words, or the number of words that they can remember, is your dependent variable. All experiments must have at least one independent variable that would have at least two different levels. In our example, it would be the positive versus the negative mood. In addition, all studies need to have at least one dependent variable. All variables can be expressed in two different ways, conceptually or operationally. When you want to be more specific, you look at the operational definition of your variable. Intelligence, which is a variable, is really a conceptual variable. Remember, conceptual variables are general. Operational definitions are specific. Your independent variable, which you manipulate, can be applied at two or more levels. If you include only two levels-- for example, if you have participants in your study on sleep deprivation-- In this case, it will appear that there was a clear effect of sleep deprivation on depressed mood. Participants who got no sleep at all are in a depressed mood. If you include three or more levels-- for example, no sleep, four hours of sleep, and eight hours of sleep-- then you may end up with a non-linear relationship, which could tell you something more complex about the relationship between sleep and depression. The next step is to choose your participants. Who will be part of your study? There are many different populations that researchers can draw from. Some of the examples would include high school students, college students, patients in mental health setting, or prisoners. Your sample is a subset of the population that you want to study. So for example, one researcher may be interested in prisoners, another researcher may be interested in psychiatry in patients, yet another researcher might be interested in infants. Now once I have established that, I need to select my sample, which is a subset of the population. Say I select a sample of prisoners. One thing that I need to take into consideration is the idea of selecting a random sample. And what that means is that every single person in that population of prisoners-- that means every prisoner in the world-- has an equal chance of ending up in my study, ending up in my sample. And this is an ideal in research. The potential problem is that I may be answering questions about prisoners in Pennsylvania.

Chapter 4 : Practical Research: Planning and Design (Subscription), 11th Edition

Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.

There present number of motives behind it due to which the readers stop reading the eBooks at their first most attempt to make use of them. Yet, there exist some techniques that can help the readers to truly have a nice and effectual reading experience. A person ought to adjust the suitable brightness of screen before reading the eBook. Due to this they suffer from eye sores and head aches. The very best alternative to overcome this serious problem would be to decrease the brightness of the displays of eBook by making specific changes in the settings. It is suggested to keep the brightness to possible minimal level as this can help you to raise the time that you can spend in reading and give you great comfort onto your eyes while reading. A great eBook reader should be set up. It will be helpful to really have a great eBook reader in order to have a great reading experience and high quality eBook display. You can also make use of complimentary software that may offer the readers with many functions to the reader than only an easy platform to read the wanted eBooks. You can also save all your eBooks in the library that is additionally supplied to the user by the software program and have a good display of all your eBooks as well as get them by identifying them from their particular cover. Aside from offering a place to save all your valuable eBooks, the eBook reader software even offer you a lot of characteristics in order to improve your eBook reading experience in relation to the traditional paper books. You may also enhance your eBook reading encounter with help of options supplied by the software program including the font size, full screen mode, the particular number of pages that need to be shown at once and also alter the color of the backdrop. You should not use the eBook continually for many hours without rests. You should take appropriate breaks after specific intervals while reading. Continuous reading your eBook on the computer screen for a long time without taking any break can cause you headache, cause your neck pain and suffer from eye sores and in addition cause night blindness. So, it is critical to provide your eyes rest for a little while by taking breaks after particular time intervals. This can help you to prevent the problems that otherwise you may face while reading an eBook continuously. While reading the eBooks, you need to prefer to read large text. It is proposed to read the eBook with huge text. So, raise the size of the text of the eBook while reading it on the screen. Even though this may mean you will have less text on each page and greater number of page turning, you will have the ability to read your desired eBook with great convenience and have a great reading experience with better eBook screen. It is proposed that never use eBook reader in full screen mode. It is suggested not to go for reading the eBook in fullscreen mode. Although it may look simple to read with full-screen without turning the page of the eBook fairly often, it place ton of pressure on your eyes while reading in this mode. Always favor to read the eBook in exactly the same span that would be similar to the printed book. This really is so, because your eyes are used to the span of the printed book and it would be comfy for you to read in exactly the same manner. By using different techniques of page turn you can also boost your eBook experience. Check out whether you can turn the page with some arrow keys or click a particular part of the display, apart from using the mouse to handle everything. Prefer to make us of arrow keys if you are leaning forward. Lesser the movement you need to make while reading the eBook better is going to be your reading experience. This will definitely help make reading easier. By using all these effective techniques, you can surely enhance your eBook reading experience to an excellent extent. This advice will help you not only to prevent particular dangers that you may face while reading eBook frequently but also ease you to take pleasure in the reading experience with great relaxation. The download link provided above is randomly linked to our ebook promotions or third-party advertisements and not to download the ebook that we reviewed. We recommend to buy the ebook to support the author. Thank you for reading.

Conducting Applied Research. IDM Researchers Will Provide Customized Targeting for Business Attraction Regional Workforce Assessment and Planning.

Once you suspect that you are procrastinating, it can be helpful to review what you are expecting of yourself, and check that those expectations are realistic. This is where planning is vital. Realistic planning To improve the prospect of completing on time, and avoiding procrastination, you need to: Your research plan should also include information about what equipment you will need to complete your project, and any travel costs or other expenses that you are likely to incur through the pursuit of your research. You should also think about whether you are dependent on any one else to complete your project, and think about what you are going to do if they are unable to help you. Once you have created your plan it is a good idea to show it to someone else. Ideally you will be able to show it to a member of academic staff or bring it to the Learning Development, but talking it over with a friend may also help you to spot anything that you have forgotten or anywhere that you have been unrealistic in your planning. Being organised and methodical while conducting your research The role of the supervisor Although a dissertation is an opportunity for you to work independently, you will usually be allocated a member of academic staff as a supervisor. Supervisors are there to help you shape your ideas and give you advice on how to conduct the research for your dissertation. They are not there to teach you the topic you have chosen to investigate: They are, however, one of the resources that you can call on during your research. Academics are busy people, so to get the most out of your supervisor you will need to be organised and to take responsibility for the relationship. To ensure that you get the most out of your supervisor you need to: This could include your research plan, early results of your data collection or draft chapters; turn up on time to each meeting you have arranged. Do not assume that your supervisor is available at all times to see you; at the end of each supervision agree some action points for you to focus on before the next time you meet; and keep a record of what you decide in supervision sessions. If you are not happy with the way you are being supervised, explain why to your supervisor or discuss the issue with your personal tutor. Undertaking a literature survey Regardless of whether you have been given a dissertation topic or you have developed your own ideas, you will need to be able to demonstrate the rationale for your research, and to describe how it fits within the wider research context in your area. To support you in doing this you will need to undertake a literature review, which is a review of material that has already been published, either in hard copy or electronically, that may be relevant for your research project. Key tools that are available to help you, include: It is a good idea to make an appointment to see the librarian specialising in your subject. An information librarian should be able to give you advice on your literature search, and on how to manage the information that you generate. You will probably generate more references than you can read. Use the titles and abstracts to decide whether the reference is worth reading in detail. Be selective by concentrating on references that: Once you start reading, ensure that you think about what you are trying to get out of each article or book that you read. Your notes should enable you to write up your literature search without returning to the books you have read. Refer to the guides *Effective Note Making* , *Referencing and Bibliographies* , and *Avoiding Plagiarism* , for further help with note-making. Collecting data For most research projects the data collection phase feels like the most important part. However, you should avoid jumping straight into this phase until you have adequately defined your research problem, and the extent and limitations of your research. If you are too hasty you risk collecting data that you will not be able to use. Consider how you are going to store and retrieve your data. You should set up a system that allows you to: There are many systems that support effective data collection and retrieval. These range from card indexes and cross-referenced exercise books, through electronic tools like spreadsheets, databases and bibliographic software, to discipline-specific tools. You should talk about how you plan to store your data with your supervisor, an information librarian, or a study adviser in the Learning Development. As you undertake your research you are likely to come up with lots of ideas. It can be valuable to keep a record of these ideas on index cards, in a dedicated notebook, or in an electronic file. They may be useful as ideas in themselves, and may be useful as a record of how your thinking

developed through the research process. Pilot studies A pilot study involves preliminary data collection, using your planned methods, but with a very small sample. It aims to test out your approach, and identify any details that need to be addressed before the main data collection goes ahead. For example, you could get a small group to fill in your questionnaire, perform a single experiment, or analyse a single novel or document. When you complete your pilot study you should be cautious about reading too much into the results that you have generated although these can sometimes be interesting. The real value of your pilot study is what it tells you about your method. Was it easier or harder than you thought it was going to be? Did it take longer than you thought it was going to? Did participants, chemicals, processes behave in the way you expected? What impact did it have on you as a researcher? Spend time reflecting on the implications that your pilot study might have for your research project, and make the necessary adjustment to your plan. Even if you do not have the time or opportunity to run a formal pilot study, you should try and reflect on your methods after you have started to generate some data.

Dealing with problems Once you start to generate data you may find that the research project is not developing as you had hoped. Do not be upset that you have encountered a problem. Research is, by its nature, unpredictable. Think about what the problem is and how it arose. Is it possible that going back a few steps may resolve it? Or is it something more fundamental? If so, estimate how significant the problem is to answering your research question, and try to calculate what it will take to resolve the situation. Changing the title is not normally the answer, although modification of some kind may be useful. If a problem is intractable you should arrange to meet your supervisor as soon as possible. Give him or her a detailed analysis of the problem, and always value their recommendations. The chances are they have been through a similar experience and can give you valuable advice. Never try to ignore a problem, or hope that it will go away. Finally, it is worth remembering that every problem you encounter, and successfully solve, is potentially useful information in writing up your research. Rather, flag up these problems and show your examiners how you overcame them.

Reporting the research As you conduct research, you are likely to realise that the topic that you have focused on is more complex than you realised when you first defined your research question. The research is still valid even though you are now aware of the greater size and complexity of the problem. A crucial skill of the researcher is to define clearly the boundaries of their research and to stick to them. You may need to refer to wider concerns; to a related field of literature; or to alternative methodology; but you must not be diverted into spending too much time investigating relevant, related, but distinctly separate fields. Starting to write up your research can be intimidating, but it is essential that you ensure that you have enough time not only to write up your research, but also to review it critically, then spend time editing and improving it. The following tips should help you to make the transition from research to writing: In your research plan you need to specify a time when you are going to stop researching and start writing. You should aim to stick to this plan unless you have a very clear reason why you need to continue your research longer. Take a break from your project. When you return, look dispassionately at what you have already achieved and ask yourself the question: Ask them whether you still need to collect more data. Remember that you can not achieve everything in your dissertation. The companion study guide *Writing a Dissertation* focuses on the process of writing up the research from your research project.

Summary Think carefully about your topic and ensure that it is sufficiently focused. Devote time to planning and stick to your plan. Work closely with your supervisor and respect the time and advice that they give you. Be organised and take detailed notes when you are undertaking your literature survey and data collection. Make a clear decision about stopping data collection. Move positively into writing-up your research. Allocate enough time to reviewing and editing your writing. Remember that you cannot achieve everything in your dissertation, but you can critically appraise what you have done, and outline ideas for further, relevant research.

Chapter 6 : Steps of the Research Process - Excerpt

The National Centers for Planning conduct applied, policy-relevant research to identify, evaluate, develop, and disseminate best practices that address critical issues for the planning profession. Green Communities.

Chapter 7 : Applied Social Research - NA Hall, Ralph Hall - Google Books

Enter your mobile number or email address below and we'll send you a link to download the free Kindle App. Then you can start reading Kindle books on your smartphone, tablet, or computer - no Kindle device required.

Chapter 8 : Research And Development (R&D)

A psychologist conducting applied research might tackle the question of what type of programs can be implemented to reduce violence in school settings. However, researchers also suggest that basic research and applied research are actually closely intertwined.

Chapter 9 : Steps in Planning and Conducting Research - SAGE Research Methods

Focused attention on how to organize and conduct research can increase the efficiency of the research process and its outcomes. The second edition of "Research Methodology in Applied Economics" provides time-tested guidelines to instruct graduate students in the research process.