**Flow Chart for Articles You Read**

**Provide the full reference for the article:**

**Your Name(s):**

|  |
| --- |
| **BOX 1: Research Questions & Objectives** |
| 1. **State the author’s research question(s) *in your own words.*** I suggest a numbered list. Note that some authors will never state an explicit research question. If that is the case, see if you can create a statement of the research question. Often, authors will say things like “This research explores…” However, do NOT invent a question for the author. You must judge the article based on what the author wanted to know – not what you *think s/he should want to know.* This is the ***broad question.*** The objectives will be narrower and more specific. You may find the question(s) and objective(s) early in the introduction, at the end of the introduction, or in the methodology section. |
| 1. **Topic: What does the author want to add to what we know about the *topic of the research*?** I suggest a numbered list 1, 2, 3. |
| 1. **Explanation: What does the author want to add to our *ability to explain the phenomenon of interest*?** Again, a list is fine. |
| 1. **Theory: What does the author want to add to the *development of theory*?** List probably will not work here. |

|  |
| --- |
| **BOX 2: Theoretical Constructs & Linkages Explored in the Research** |
| 1. ***IF* the author uses a theoretical framework, state the constructs (concepts) in the theory that are used in the study. Indicate which linkages between these constructs are explored in the research.** If the author provides no theoretical perspective, you probably need to select a different article to analyze. However, you also have to understand that the author is writing for a *researcher audience.* Therefore, s/he will probably ***not*** spell out the theory in detail because authors assume you know something about the theory if you are reading the article. You are an informed reader. In short, do not look for something like “My theory is X and here are the constructs I used in this research.” It will rarely be stated that way. **If there is NO theoretical basis for the research, state this clearly and leave this row (B) blank. But make absolutely sure there is no theory involved.** |
| 1. **Does the author state research or what are sometimes called general or working hypotheses?** These are ***NOT*** ***statistical hypotheses.*** Often they are something like “We hypothesized that resilience [a theoretical construct] would be greater in families with dense social networks [another theoretical construct]. That is, these statements are often statements of ***relationships between theoretical constructs that the authors expect to observe.*** |
| 1. **Interventions or Treatments.** There may be none, especially in descriptive studies. There is always a treatment in a true or quasi-experiment. |

|  |
| --- |
| **BOX 3: Variables & Level of Measurement** |
| **NOTE Give the level of measurement for EACH variable:** There are four levels of measurement, nominal, ordinal, interval and ratio. For all practical purposes in our work, interval and ratio data are equivalent levels of measurement. Most narrative data (like answers to questions in a focus group) are nominal, but such data may be transformed into other levels of measurement (by counting how many people used the term “terrible” to describe an event, for example). |
| 1. **List the comparison groups and explain how each group is defined. State these in your own words**. |
| 1. **List and define in your own words the dependent or outcome variables.** These variables represent what the author wants to explain or predict. Behavior change is a common outcome variable. Change in knowledge is another. These variables are usually identified clearly and explicitly. |
| 1. **List and define in your own words the independent or predictor variables (NOT the same as the comparison groups).** Independent or predictor variables are usually of two types. Some may be ***descriptive variables*** that do not represent a construct in the theory. Examples are demographic variables like age or ethnicity. Others are variables that represent theory-based constructs of interest like self-confidence to represent perceived behavioral control in the theory of planned behavior. You often will have to look at tables of statistical tests or read the results section of a qualitative analysis in detail to identify these variables, but authors may define them clearly in the methods section of the report. |

|  |
| --- |
| **BOX 4: Sampling**  **Do NOT attempt to complete this box without the document “Basics of Sampling” at hand. It will be harder and will take much longer than needed without the guide. Don’t waste your time. Use the guide.** |
| 1. **List and define the theoretical population(s). These are “almost” the same thing as the population of interest, but not quite.** |
| 1. **What is the accessible population?** |
| 1. **Is there a sampling frame? If so describe it (them).** |
| 1. **How was sample size determined and what is the size of the sample?** If there are comparison groups, give this information for each group. |
| 1. **What are the selection or screening criteria?** Many (perhaps most) studies use some additional screening criteria. This does ***NOT*** make the sample a “purposive” or “judgmental” sample. It is simply a way to reduce non-experimental variance or establish comparison groups. For example, I might exclude international students in a study about how well high school prepares students for study at UF because international student probably did not attend a US high school and I am specifically interested in the US high school system. |
| 1. **Name the specific sampling approach used (e.g., systematic random sample, volunteer sample, etc.). If a purposive sample was taken, name the specific type of purposive sample – e.g., maximum variation purposive sample.** |
| 1. **What was the response rate?** Note that in most studies at least a few people who were contacted to participate in the study say no, cannot be contacted, etc. Some authors fail to explain the response rate. If that is the case, say so. |
| 1. **Were replacement procedures used?** Some researchers use replacement procedures to make sure that the calculated (required) sample size was met. This does not mean that the response rate was 100%. You might need 200 people for a study. Half of the people contacted say no—but through replacement you finally get 200 people who say yes. In that case, 400 were contacted, but 200 said no and the response rate is 50%. |

|  |
| --- |
| **BOX 5: Data Collection Procedures** |
| **Explain very briefly how the data were collected.** Examples are internet questionnaire or focus group. What was the level of data collected (nominal, ordinal, interval, ratio)? |

|  |  |  |
| --- | --- | --- |
| **BOX 6: Statistical Data Analysis**  **Complete ONLY if the article uses statistical tests.**  **Descriptive statistics of the sample are NOT statistical data analysis.** | | |
| 1. **Make a NUMBERED LIST of the statistical hypotheses.** Statistical tests ***always test some hypothesis,*** but the authors may not state all hypotheses clearly in the text. They assume that you will understand the implicit hypotheses. If an article uses any statistical tests, you ***must state the underlying statistical hypothesis, even if the authors do not.*** For example, if the author uses a t-test to compare two groups, even if s/he does not say it, the underlying hypothesis is that the two groups differ with regard to the variable used in the test. State the statistical hypotheses ***in your own words***. There may be **many hypotheses.** I suggest you list one hypothesis per row below and add rows as needed. | **Specific statistical test(s) used to test each hypothesis.** | **Results of the test (e.g. significant at 0=0.05, etc.)** |
|  |  |  |
| 1. **Describe any additional (unplanned, post-hoc) statistical analyses performed.** As researchers conduct analyses, they sometimes add statistical procedures because they see a trend or an artifact in the data that they want to explore. Typically, there are no **stated** hypotheses for these analyses, but in some cases, there are. State the hypothesis, indicate the test that was used and give the result for each test. | | |
|  |  |  |
| 1. **What were the key (most important) results of this study?** Make a bullet list. Focus on key results. State them in your own words. These are NOT a repetition of the results of specific statistical tests. They are the overall findings. | | |

|  |
| --- |
| **BOX 7: Qualitative Data Analysis**  **Complete ONLY if the article uses qualitative data analysis** |
| 1. **Explain how the data were analyzed in your own words.** |
| 1. **How were the results presented? (a table, a model/diagram, lengthy quotations, for example)** |
| 1. **What were the key results?** |
| 1. **Were any procedures used to ensure rigor in data analysis and interpretation?** |
| 1. **What were the key (most important) results of this study?** Make a bullet list. Focus on key results. State them in your own words. These are NOT a repetition of the results of specific statistical tests. They are the overall findings. |

|  |
| --- |
| **BOX 8: Conclusions** |
| **This is NOT the same thing as results.** Results are specific to a study. Conclusions are the broader implications of the research. The conclusions typically directly address the author’s stated research objectives. As you examine the conclusions, organize them by the three types of objectives you identified at the beginning of this form. Do **NOT** repeat any results here. |
| **Topical Objective(s).** |
| **Explanatory Objective(s).** |
| **Theoretical Objective(s).** |