Graduate Research Technical Advisement Protocol

Dear Graduate Student,

Thanks for your interest in sharing your research idea with me. In order to ensure the successful initiation as well as the high quality of the projects born out of your research idea, I use the following protocol (I will help you out with all the steps!).

Please note that the practical details included in this protocol are to be completed over time and to the best of our ability! They are based on the experimental and quasi-experimental research studies commonly conducted in the field of Applied Linguistics and TESOL.

Start of the protocol

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1) What exact topic interests you, and how did you come to become interested in it?

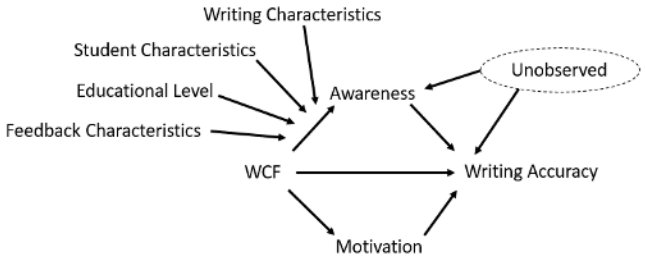
2) Is there any prior meta-analysis focused either specifically or generally on that topic?

3) What is/are the dependent variable(s) in detail? (e.g., if you say only "grammar", then what specific grammatical structures; each one can be a dependent variable)

4) What is/are the independent variable(s) in detail? (e.g., if you say only "Corrective Feedback", then what specific types of it, and pertaining to which language feature?)

5) What is/are the nuisance/confounding variable(s) in detail? (e.g., if you say only "amount of output students can produce", then how do you think that affects the effect of "Corrective Feedback"? Does it increase its effect, or it decreases its effects?)

6) Draw a conceptual model that shows the connections between the variables in steps (3) to (5).
   - Here is an example from a former student where s/he conceptualized how written correct feedback (WCF) causes improvement in writing accuracy either directly (the direct arrow) or indirectly (via awareness or motivation). The arrows falling between WCF and awareness are the often-observed confounding variables. The dotted circle encapsulates the unobserved confounding variables (e.g., detailed family-related information).



7) Which of the variables in (6) are readily measurable?

8) Which variables in (6) are NOT readily measurable, and why?

9) If (8) is applicable, are there any closely related and readily measurable variables (e.g., country of origin for L1, attention for awareness) that can take the place of the variables in (8)?

10) If answer to (9) is yes, go back and substitute the proxy/surrogate variables suggested in (9) for the NOT readily measurable variables in your conceptual model in (6).

11) If answer to (9) is no, would you like to do a measurement study to develop a scale/measure/instrument/test etc. for any of the variables in (8)?

12) Using your conceptual model, what RQs do you have in mind?

13) What research design is conducive to answering those RQs?

14) In your design, would you be willing to provide those initially assigned to a control group with one of your treatments and if possible, collect data on it?

15) Would you be willing to pre-register your study, its design, and materials?

16) Per your design, run a participant planning protocol to get an estimate of how many participants you need to recruit for your study groups.

17) Per your design, plan for a method of participant recruitment (I will provide you with several options). This has a significant bearing on the cost of your study (see [18]).

18) Per your design, run a cost estimate protocol to get an estimate of how much implementing your treatment and collecting data from the number participants determined in (16) approximately cost in each study group.

19) Prepare a document discussing what your study is generally meant for, and the method of how participants can be recruited (see [17]) and assigned to a study group (see [20]), plus any possible incentives you may be able to provide to those agreeing to participate (we may need this content for the consent forms, IRB, ads, and memoranda of understanding if applicable)

20) Plan for the method of assigning students/classrooms/centers/schools etc. to groups per your design (e.g., purely based on randomness or by preset criteria, both). I will provide you with several other options tailored to each research context.

21) Record the number of participants assigned to each study group and **record this date**.

22) After assignment, **immediately** plan to collect as many background variables (proficiency [possibly broken down to skills], age, gender, activities that overlap with your treatment [e.g., participants taking another language class], L1 background etc.) from participants as possible to allow for a **rich description** of who they are, what kind other potential participants outside of the study they can represent, and how their characteristics are distributed across the study groups.

23) Does your design allow for students of one study group to be exposed to/in contact with students of any other study group? (see [31] below)

24) Does your assignment plan ensure equivalence among different study groups' members on the nuisance/confounding variable(s) stated in (5)?

25) Define your treatment protocol in as much operational detail as possible.

26) Determine who will deliver your treatment protocol.

27) Collect background information about those delivering your treatment protocol (e.g., if teachers: their age, gender, educational qualification, years of experience)

28) Develop a rating scale (each item scaled from 0 to 5) that measures the degree of full/faithful implementation of your treatment protocol by those who deliver it (e.g., teachers).

29) Train an adequate number of informants/observers to measure the implementation of your treatment protocol using your scale in (28).

30) Collect background information about the observers in [29] (their age, gender, educational qualification).

31) If answer to (23) was yes, ask the the study teachers to track students' movement from one study group to any other study group during the treatment sessions (at the very least if that has occurred a lot, a little, or never).

32) Ask treatment deliverers (e.g., teachers) to record the **number**, the **date**, and the study group (e.g., classroom) that any **new** student(s) joined after initial assignment of your study groups.

33) If (32) was applicable, collect the same variables as those in (22) and determine how far into the study the new students joined the classroom(s)?

34) Is there any reason to believe any of the new students joined the classroom because they knew a study was underway in that classroom?

35) Is there any reason a participant may drop out of your study specifically due to your treatment (English Language Learners avoiding a "yet another English language program" to enhance their English, those disliking writing avoiding a writing treatment etc.)?

36) If answer to (35) is yes, what additional incentives/measures can minimize this type of drop out (if there is any go back and add that to your treatment protocol in [19])?

37) Record the number of participants dropping out of your study overall relative to those initially assigned, as well as those dropping out of each of your study groups as your study proceeds.

Further decisions from this point on are specific to each research project.

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End of the protocol