

DP Psychology

Preparing students for their IA



Table of Contents

Your Role as the Teacher	3
The Role of the Student	4
Preparing for the IA	6
The Structure of the IA	8
Lesson Plans & Activities	9
Conclusion	17
Reflection	18
Resource 1: Student-Conducted Observations	
Resource 2: Research Activities	
Resource 3: Enrichment Activity Planning	
Resource 4: IA Checklist Activity	

Your Role as the Teacher

As teachers, we have a responsibility to ensure that each student's work is academically honest, and there are some ways we can do this.

First, we must explicitly teach students what academic honesty is. Then throughout the internal assessment process as part of our authentication, we need to check in with students and discuss their work. These discussions will help us see whether each article was selected by the individual student, that the source and publication date are accurately recorded.

The IA has both individual and group work elements. Students work in a group (minimum size 2, maximum size 4) to plan and conduct a psychological investigation. This must be an experiment with one independent variable and one dependent variable. Data analysis, the formulation of the conclusions and the writing up of the report must, however, be carried out independently from the group. Teachers will provide advice on the suitability of a group's proposed project.

Teachers also must give at least 20 hours of in-class work time for students to work on their IA.

Your role is to guide, facilitate, support, and ensure academic integrity throughout this process. Students have the opportunity to investigate an issue that is relevant and interesting to them.

The Role of the Student

Both HL and SL students are required to replicate a published study as closely as possible, given their limited time and resources.

Students are expected to align their methodology with proper experimental procedures.

Working with a partner (groups of two to four), students will operationally define the independent and dependent variables, determine the experimental research method, recruit and randomly assign participants (following ethical guidelines), arrange/produce testing materials, and execute the study. Independently, students will report the findings, draw conclusions, and evaluate the hypothesis/theory.

Students often wonder if the findings of their research fail to reject the null hypothesis (that is, they are not able to support the theory) or if their findings differ from the outcome of the original study, that they will score poorly. This is not accurate.

The focus of the IA rubric centers on appropriate investigative procedures, careful attention to methodology, and accurate understanding of reporting results. As in the real world, sometimes the results of a study do not generate data to support a theory, that is okay. The IA is simply the chance for students to show that they know how to correctly plan, execute, report, and evaluate an experimental study.

My notes



Preparing for the IA

Teachers can prepare students for the IA experience by providing opportunities to design investigations and develop investigative skills, collect and analyze data, formulate conclusions, and then evaluate and communicate findings. By collaborating with other students, students will more quickly acquire the skills they need.

Throughout DP courses teachers explicitly plan to teach a range of generic skills, known as ATL skills. There are: thinking, research, self-management, communication and social skills. In preparation for the IA, students need to have had an opportunity to develop generic or cross-disciplinary skills, in addition to a range of discipline-specific skills.

The IA encourages student thinking skills by encouraging them to assess appropriate designs to address specific research questions. Research skills can be honed by encouraging students to formulate hypotheses based on an analysis of background psychology research. In addition, research skills should incorporate an awareness of ethical practices in research. Self-management skills can be demonstrated by adherence to design principles and deadlines. Communication and social skills can be developed through collaboration with other students on a project but also in interactions with research participants.

At what point in your psychology course will you carry out the IA?

Are there any key topics that should have been covered before?

Topics in the research methods unit provide opportunities for students to develop research awareness, whereas the study of the core material can lead to a range of interesting research questions. Most teachers plan the IA after key topics have been taught in the first half of year 2.

The Structure of IA

The written report should include the following components:

Introduction

Exploration

Analysis

Evaluation

References

An appendices section is recommended

The 20 hours of in-class work does not include the time taken to prepare the report. Because of this, teachers should plan for the internal assessment at the beginning of their course, so they give students enough time in class to execute this project.

Lesson Plans & Activities

Teachers can prepare students for the IA experience by providing opportunities to design investigations and develop investigative skills, collect and analyze data, formulate conclusions, and then evaluate and communicate findings. By collaborating with other students, students will more quickly acquire the skills they need.

Here are some learning activities and lesson plans to help you plan. Read through each type of activity. Then find the printable in the Resources section.

Student Conducted Observations

Student-conducted observations and experiments are learning activities I've used in my class to address design, investigation and prediction skills.

After my students have completed the Research Methods unit, I have them plan a group observation, in which they include a hypothesis and procedure; after we begin the Cognitive Psychology unit, I have them plan a group experiment, where they include a hypothesis, IV, DV and the procedure of their experiment.

These learning activities emphasize student learning and understanding of research design, investigation and prediction skills in preparation for their IAs.

In the resources section, find:

- A worksheet on Guidelines for Student Conducted Observations.

Simple Experiments

I use simple experiments, like The Stroop Effect because it is easy to conduct and gives my students the opportunity to work with data as a class.

Below is an example of what has worked well in my class, perhaps you can modify the activity or think of something similar to do with your own students.

We conduct [The Stroop Effect](#) as a class.

Then we discuss whether we want to use the mean, mode or median. (Mean should be used)

Then we conduct standard deviation using one of the online calculators like:

<https://www.mathsisfun.com/data/standard-deviation-calculator.html>

We also conduct inferential statistics using one of the online calculators like:

<https://www.socscistatistics.com/Default.aspx> (Sign T-Test)

We also create a graph of the research using an online site like: <https://nces.ed.gov/nceskids/createagraph/>

As homework, I have students use this information to write up a conclusion stating the mean, standard deviation and inferential statistics findings; as well as stating whether their data was significant and can reject the null hypothesis. They also include a correctly labeled graph of the mean for the class experiment.

The next day of class, we compare the class data to the original Stroop Effect experiment.

<http://psychclassics.yorku.ca/Stroop/>

The Stroop Effect experiment is a classical study, (1935), and it can be hard for students to read; therefore, going through it as a class is very helpful and also demonstrates how to read such a document.

All of this is done to assist students in preparing for their IAs.

A Bank of Case Studies

One of the best tips, particularly at the start of the 20, timetabled IA hours is to ensure that you have a bank of studies ready in case students are still unsure what topic to pursue after doing their research. This can help inspire them by giving them a directed choice. The more studies you have, the better - I have about 20 in my bank of studies. 20 is about the right amount as it gives students more choice but doesn't overwhelm them. More of the studies in my bank are memory experiments as in my experience such experiments are quicker and easier to carry out.

Popular choices include [Loftus and Palmer's study on leading questions](#), the [levels of processing studies by Craik and Lockhart](#), [Baddeley's research on semantic and acoustic encoding](#) in short- and long-term memory and [Peterson and Peterson's research on duration in short-term memory](#).

However, as I said, it is useful to give the students a range of choices, so studies such as those by Stroop on automatic and controlled processing are also viable. Also, the effects of schemas on cognitive processing can be successfully adapted to IA projects.

Ultimately, the idea with the bank of studies is to provide a quick backup tool to help students with their choices and to provide options that are manageable. Nevertheless, there is scope for you to include studies that you particularly favor as it is important to have some personal choice on the teacher's part.

Research Activities

I use research activities to have students identify and practice articulating issues related to the IA including methodological issues, research design limitations, and ethical considerations.

The overall aim of the activity is intended to help students identify and articulate central issues that they will encounter as part of their IA design. The activity allows students to practice methodological issues, research design limitations, and ethical considerations.

In the resources section, find:

- An example of a research activity you can use in your classroom.

Enrichment Activity Planning

Enrichment activity planning help students begin to undertake the IA process, including scaffolding the organization of the major components.

In the resource section, you will find:

- A sample that you can use in your classroom to do this type of planning with your students.

IA Checklists

Using an IA checklist that students can use before they submit their document is a great way to help your students stay organized, give them a chance to self-reflect, and give them the opportunity to ensure they have everything they need before they submit their IA.

In the resource section, you will find:

- An IA Checklist you can use with your students.

Conclusion

The IA can be a stressful time for students, so it's important the teacher is knowledgeable and organized.

Make sure in your lesson/curriculum planning you devote whole class days reviewing the IA, having them work in class and giving students time to meet with you if needed. Give them time before/after school, during their lunch periods to meet with them.

Continue to ask them how it's going, and how you can help them. Get to know them, find out if they are working, what responsibilities they have, extra-curricular activities, their challenges in getting this done and work out time management plans with them.

Teacher Reflection

What type of preparation will the teacher need to do in order for the IA to go smoothly for all students?

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

My notes



My notes



Resources

Find all the printables that were discussed in this Print and Go Pack by downloading the individual files in this Pack.



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