

## OBJECTIVES OF RESEARCH

Zoology makes a huge impact on our world through the scientific study of the evolution, anatomy, physiology, behaviour, habitats, and health of animals and humans. It includes diverse approaches such as electron microscopy, molecular genetics, and field ecology.

By studying animals we develop a better understanding of how we, ourselves, function and interact with the world around us. The search for answers to our questions puts us in the incredible position of being able to affect change, empower better choices, and develop solutions for a stronger, healthier world.

**Defining a clear research question, aim and objectives is a crucial step in any research project.**

The **research question** formulates a research problem that you want to investigate. The scope of the question is informed by your research aim and your research objectives.

A **research aim** expresses the intention or an aspiration of the research study; it summarises in a single sentence what you hope to achieve at the end of a research project. Your aim should be specific and phrased in such a way that it is possible to identify *when* it has been achieved.

**Research objectives:** outline the specific steps that you will take to achieve your research aim. Objectives define the what, why, who, when and how questions. You should check your objectives regularly during your research project to ensure you are staying focused, and decide if you need to review or revise them. Once you have defined your objectives, consider whether each is possible and if the number of objectives is realistic.

**Research aims: Your research aims are the answer to the question, 'What are you doing?'**

1. You need to clearly describe what your intentions are and what you hope to achieve and these are your aims.
2. Your aims may be to test theory in a new empirical setting, derive new theory entirely, construct a new data-set, replicate an existing study, question existing orthodoxy, and so on. Whatever they are, clearly articulate them and do so early. Definitely include them in your introduction and, if you're smart, you'll **write them in your abstract**.

3. Be very **explicit**. In the opening paragraphs, say, in simple terms, **‘the aim of this thesis is to...’**

4. Think of your aims then as a statement of intent. They are a **promise to the reader** that you are going to do something. You use the next two hundred pages or so to follow through on that promise. Because they serve as the starting point of the study, there needs to be a flow from your aims through your objectives to your research questions and contribution and then into the study itself. If you have completed your research and found that you answered a different question, make sure your original aims are still valid, If they aren’t, refine them.

### **Research objectives:**

Your aims answer the question, ‘What are you doing?’ The **objectives are the answer to the question, ‘How are you doing it?’**

Research objectives refer to the goals or steps that you will take to achieve your aims.

When you write them, **make sure they are SMART.**

1. **Specific:** talk in a precise and clear way about what you are going to do.
2. **Measurable:** how will you know when you have achieved your aim?
3. **Achievable:** make sure that you aren’t overly ambitious.
4. **Realistic:** recognise the time and resource constraints that come with doing a PhD and don’t attempt to do too much.
5. **Time constrained:** determine when each objective needs to be completed.

You need to be as explicit as possible here. Leave the reader in no doubt about what you will do to achieve your aims. Step by step. Leave no ambiguity. At the same time, be careful not to repeat your methods chapter here. Just hint at your methods by presenting the headlines. You’ll have plenty of space in your methods discussion to flesh out the detail.

### **What is the difference between research aims and objectives?**

The aims of a study describe what you hope to achieve. The objectives detail how you are going to achieve your aims. Let’s use an example to illustrate.

#### **Aim:**

1. To investigate the menace of mosquitoes in Tirunelveli district.

#### **Objectives:**

1. Conduct a survey of local mosquito populations.
2. To enumerate different species of mosquitoes in various places.
3. To examine and record the biting behaviour of mosquitoes at time intervals, both day and night.
4. To collect data from Primary Health Centres on various mosquito born diseases in Tirunelveli.