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# Research Aims and Objectives: How They Align with Research Questions

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Reviewed by Eunice Rautenbach, DTech · November 2026

## Abstract

A research proposal is usually expected to state a research aim, research objectives and research questions, and the completed study is judged against them. The three are often confused because they describe the same study from different angles, and a common weakness is a set in which each statement is sound on its own but the three do not point the same way. This article defines each element: the aim as the overall goal of a study, the objectives as what the study must establish to meet that aim, and the research questions as what the study will find out. Each definition is illustrated with extracts from completed theses in nursing, business and natural resources, including one that maps every objective to the chapter that delivers it. The article then compares the three elements, distinguishes parallel from nested structures for pairing objectives with questions, sets out a five-step procedure for drafting a set, and closes with a test for alignment. It is intended for students and early-career researchers preparing a proposal, and for the educators who teach research design.

**Keywords:** research aims and objectives; research aim; research objectives; research questions; difference between aims and objectives; research proposal; golden thread; open educational resource

**Suggested citation:** Jansen, D. (2026). *Research aims and objectives: How they align with research questions*. Grad Coach. https://doi.org/10.5281/zenodo.24198441

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## 1. Introduction

The research aims, objectives and questions are among the first parts of a research proposal that a supervisor reads, and they are the standard against which an examiner or committee measures the findings at the end. They are set at the start of a study, and later decisions follow from them, including the choice of population, setting, data and time period (Doody & Bailey, 2016). If they are vague, or do not agree with one another, the whole study begins to drift: the literature review loses its focus, and the conclusion cannot state what the study set out to show.

The difficulty is seldom a single weak statement. More often, the aim, the objectives and the questions each make sense alone but do not point in the same direction. This article explains each element in turn, illustrates it with extracts from four completed theses, and sets out a procedure for writing a set that aligns. Section 2 introduces the three elements together. Sections 3 to 5 define the aim, the objectives and the research questions. Section 6 compares them, Section 7 describes how to write them, and Section 8 discusses how to check their alignment.

## 2. The Golden Thread

Together, the research aim, the research objectives and the research questions form what is often called the golden thread of a dissertation, thesis or research paper. They belong together because **each states something different about the study**, and the three statements must agree:

- The **aim** states what the study sets out to achieve overall.
- The **objectives** state what the study must establish to get there.
- The **research questions** state what the study will find out.

Put this way, it is clear why the three are so often confused. They describe the same study from three angles, so they share most of their words.

The thread is set at the proposal stage and then runs through every chapter. The literature review, the research design and the analysis are each chosen because they help to answer the research questions, and the conclusion is judged on whether they were answered. The golden thread therefore also sets the **focus and scope of the project**: it marks off an area narrow enough to be studied in depth, and the boundaries it draws are the study's delimitations.

The thread is also a test of relevance. Material whose place in a study is uncertain can be judged by asking whether it helps to meet an objective or to answer a research question. If it does neither, it can probably be cut.

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Figure 1 shows the whole thread: the three statements at the top, and below them the six chapters, each labeled with the task the three statements give it.

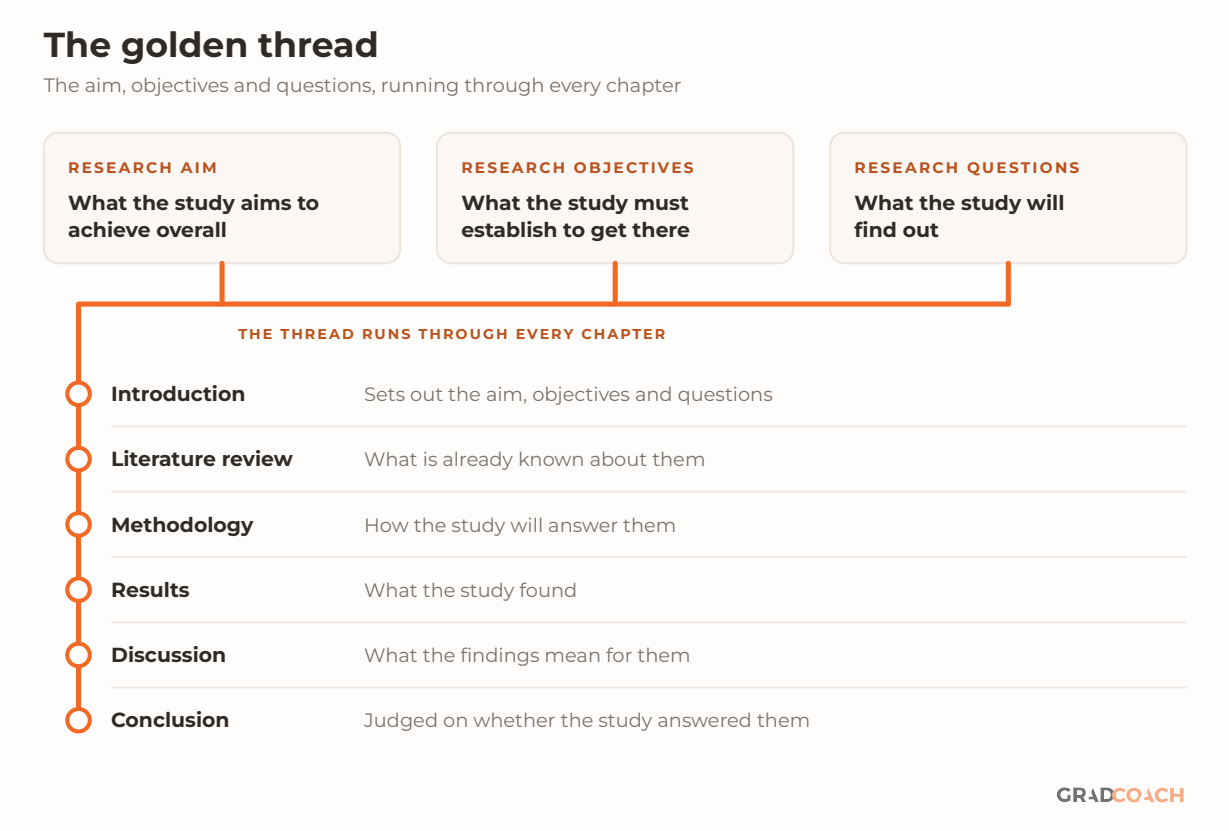



**Figure 1.** The golden thread: aim, objectives and questions run through every chapter.

Read from top to bottom, the figure shows that each chapter's task is set by the three statements at the top. A chapter that cannot be linked to any of them is drifting from the study's purpose.

## 3. Research Aims

A research aim is a statement of **the broad, overarching goal of a study**. It says what the study is trying to achieve and in what setting, without describing how. Thomson (2025) describes the aim as the destination of a project, and as the one-sentence answer a researcher gives when asked what their research is about.

Most studies have a single aim. Thomson (2025) puts it as "just one main research aim (or maybe two or three if you're working on a particularly complex project)" (para. 4), and the University of Sheffield (n.d.) likewise advises a single aim for most projects. As for form, the Sheffield guide notes that the convention is an infinitive verb, "to" followed by an action: to measure, to investigate, to compare.

### 3.1 Examples of research aims

In practice, most aims open with "This study aims to…" or "The aim of this study is to…", or begin directly with the infinitive. The following aim, from a qualitative doctoral thesis in nursing, shows the usual form. It names whom the study is about and the two things it seeks to

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understand:

> This study aims to explore the lived experiences of nurses who have witnessed end-of-life dreams and visions (ELDVs) in dying patients and how these experiences impact their personal and professional lives.
>
> Herron (2025, p. 5)

The aim names **exactly whose experience the study is concerned with**: nurses who have witnessed these dreams and visions, rather than nurses in general. It then names two things to learn about that experience: what it is like, and how it affects the nurses' lives. The verb "explore" and the phrase "lived experiences" indicate a qualitative study before the method has been described. A well-drafted aim allows a reader to tell whom the study is about and, broadly, what kind of study it is.

A doctoral thesis in business shows a second form: a single sentence that names a broad topic and then adds a stated emphasis. The study is a quantitative survey of collection-and-delivery points (also known as pickup points: places where shoppers collect or return their online orders):

> The primary aim of this study is to investigate the factors influencing consumer adoption of Collection-and-Delivery Points (CDPs) in Vietnam, with an additional focus on the role of trust, particularly Emotional Trust (EMT).
>
> Luong (2025, p. 6)

This aim is **broad by design**: "investigate the factors" does not say which factors, or how they will be measured. That is the task of the objectives. What the aim does fix is the topic, the setting (Vietnam) and the one thing the study cares about most (trust).

## 4. Research Objectives

Research objectives take the aim and make it **practical and checkable**. Several sources, including the University of Sheffield (n.d.) guide and Thomson (2025), describe objectives as the specific steps taken to achieve the aim. An objective works best, however, when it also names what the step will establish. "To interview managers" is a step. "To identify the barriers managers face" states what the interviews are for, and it makes clear when the objective has been met.

Objectives are often built on an action verb, such as identify, measure, compare or evaluate, which keeps them tangible and achievable (Thomson, 2025). Thomson also offers a test: an objective is something that can be checked off as done "at a specific point in my research" (para. 11), whereas a statement that is done only when the whole project is complete is more likely to be the aim.

Objectives are also often checked against the SMART criteria, commonly expanded as specific, measurable, achievable, realistic (or relevant) and time-bound. The acronym comes from a short management article by Doran (1981, as cited in Swann et al., 2023), in which the letters stood for specific, measurable, assignable, realistic and time-related. The criteria have since been interpreted in many different ways, and Doran himself noted that not every objective will meet all five

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(Swann et al., 2023). The check is therefore a useful prompt for vague objectives rather than a rule: a qualitative objective will not produce a number, and a time limit usually belongs in the project plan rather than in each objective.

Finally, not every task in the project is an objective. The University of Sheffield (n.d.) points out that a step that every project must take, such as investigating the context of the problem, is not an objective.

### 4.1 Examples of research objectives

The full set of objectives behind the business doctorate's aim in Section 3.1 is reproduced below. Objectives 1 and 2 concern the existing literature, objectives 3 to 6 the study's own data, and objective 7 the practical use of the findings:

> Research objective 1: To critically discuss past research about CDPs.
>
> Research objective 2: To identify future research about consumers' adoption intention towards CDPs.
>
> Research objective 3: To identify key factors influencing consumers' adoption intention towards CDPs.
>
> Research objective 4: To identify key factors influencing consumer trust in CDPs, including both Cognitive Trust (COT) and Emotional Trust (EMT).
>
> Research objective 5: To examine the mediating role of Emotional Trust (EMT) in shaping adoption intention.
>
> Research objective 6: To explore the moderating effects of consumer demographics and purchasing behaviours on trust formation and adoption.
>
> Research objective 7: To provide practical recommendations for logistics service providers and policymakers to enhance CDP adoption in Vietnam.
>
> Luong (2025, p. 6)

Objectives 3 to 6 carry most of the weight: each names **one thing the study will establish**, and together they cover the aim's "factors" and its "additional focus" on trust. Objectives 1 and 2 are literature objectives. Some programs expect one; others treat reviewing the literature as part of every project rather than an objective of a particular study, so a program's handbook should be checked before one is included. Objective 7 then turns the findings into recommendations for the organizations that operate and regulate these services.

The thesis then takes a step that any study can adopt. Directly after the list, it maps each objective to the chapter that delivers it, first in prose and then in a table (Luong, 2025, pp. 6–7, Table 1.1). Figure 2 redraws that map: each column is a chapter, listing the objectives it delivers.

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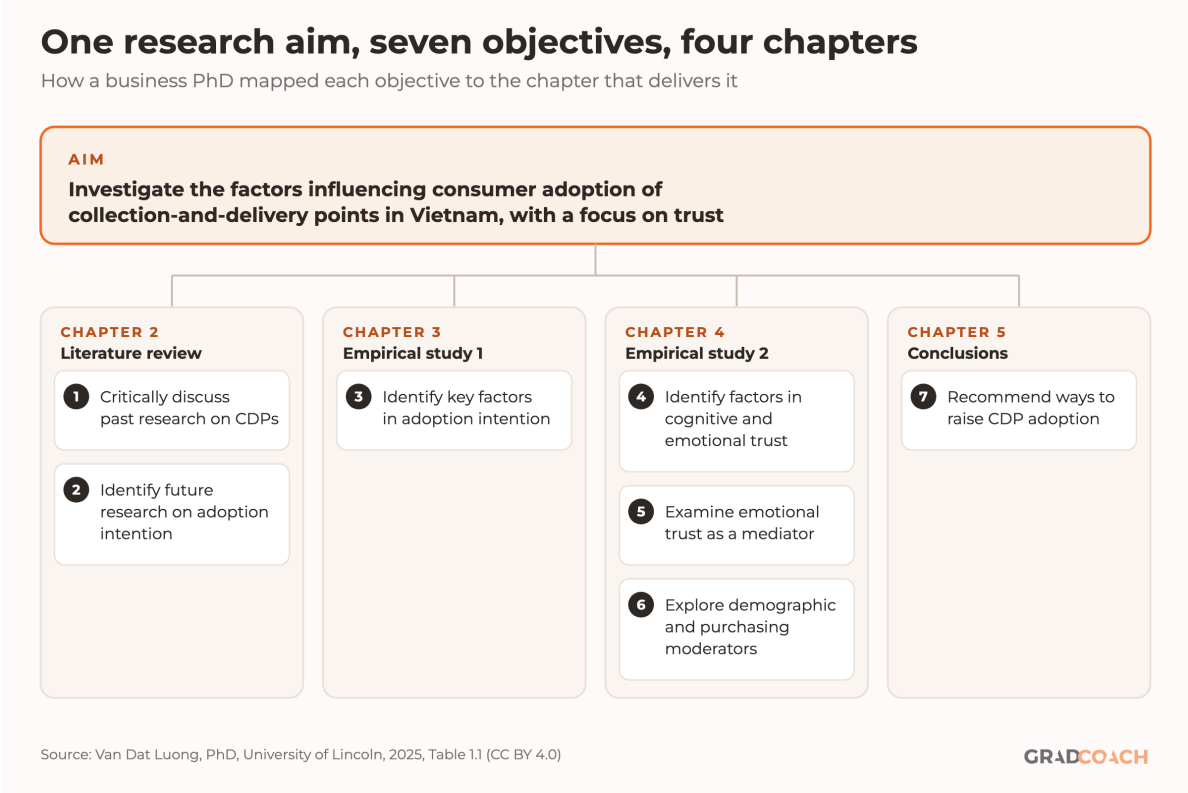



**Figure 2.** Seven objectives mapped to their chapters. Adapted from Luong (2025), CC BY 4.0.

The same map is a useful check on any set of objectives before a proposal is submitted. It exposes **commitments that the study will not fulfill**: an objective with no chapter, or no analysis within a chapter, is one that the study will never be able to claim it has met.

## 5. Research Questions

Research questions are **the specific questions a study sets out to answer**, and in many respects they are the core of the whole document. They are usually stated in the introduction chapter (some theses restate or refine them at the end of the literature review) and answered in the analysis, discussion and conclusion chapters.

They also drive most of the decisions that follow. In the literature review, a source earns its place if it helps to answer one of them. In the methodology, **the wording of the question points to the method**: questions about experiences or meanings usually call for a qualitative approach, and questions about how much, how often, or whether two things are related usually call for a quantitative one. Barroga and Matanguihan (2022) draw the same line: quantitative research questions concern the relationships among variables, the characteristics of variables to be measured, or differences between groups, whereas qualitative research questions explore a central phenomenon and present the varied perspectives of participants.

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### 5.1 Examples of research questions

Many theses pair one overarching question with a set of narrower ones. The following doctoral thesis in business, a qualitative case study of corporate governance reform in Nigeria, does exactly that, and its first four subordinate questions each take up one part of the main question:

> How and why corporate governance change emerge [sic] in Nigeria and what are the key mechanisms underlying the evolutionary process?
>
> 1. How did a corporate governance change emerge and evolve and what are the key drivers?
>
> 2. What are the processes through which corporate governance changes are institutionalised across Nigeria?
>
> 3. What are the key contextual mechanisms and interaction that contributed to the implementation of corporate governance reforms in Nigeria at multiple layers of context?
>
> 4. What roles do institutional entrepreneurs play in the institutionalisation of corporate governance change?
>
> 5. What are the practical implications of this research?
>
> John (2023, p. 11)

The overarching question asks "how and why", which suits the qualitative case study that the thesis conducts, and the first four subordinate questions **divide it into four parts**: how the change emerged, how it became embedded, what shaped it and who drove it. The thesis states that it addresses them in Chapters 4 to 6 (John, 2023, p. 11): two analysis chapters, followed by a chapter that summarizes and concludes the thesis. The questions therefore also organize the chapters. A main question that is too large to answer in one step can be divided in the same way, with one subordinate question for each part of the answer.

It is also instructive to set a research question beside the aim from which it came. The main research question of the nursing doctorate whose aim is quoted in Section 3.1 reads:

> What is the lived experience of nurses witnessing an end-of-life dream and vision of a dying patient?
>
> Herron (2025, p. 7)

The question keeps the aim's exact subject and its phrase "lived experience", so **the two visibly describe the same study**. It carries only the first half of the aim, however.

The second half of the aim, how the experiences affect nurses' lives, has no research question of its own. It appears only among what the thesis lists as sub-questions, which are worded as interview prompts ("Tell me…", "Share…"; Herron, 2025, pp. 7–8). One of them asks "how has it affected your personal life and professional career?" (Herron, 2025, p. 8). An interview prompt is a data collection tool, not a research question. Where part of an aim matters enough to be stated, **it needs a research question of its own**.

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## 6. Aims, Objectives and Questions Compared

In brief, **the aim is the destination**, and the objectives are what the study must establish to reach it. The research questions then state what the study will find out; they can mirror the objectives or sit above them. Table 1 compares the three.

**Table 1.** Research aims, objectives and questions compared.

| Element | What it states | How it is usually written |
|---|---|---|
| Research aim | The overall goal of the study | One sentence: "This study aims to..." |
| Research objectives | What the study must establish to meet the aim | Several statements, each opening with a verb: "To identify...", "To compare..." |
| Research questions | What the study will find out | Questions that the findings answer: "How do...?", "What are...?" |

Objectives and questions can relate in two ways. In a **parallel** structure, each objective is its question restated as a statement, one to one: "To identify the key factors influencing adoption" and "What factors influence adoption?" are one commitment in two grammatical forms.

In a **nested** structure, each question sits above one or more objectives, and each objective is a piece of work on which the answer to that question depends (Section 8 gives an example). Either structure works.

Some programs ask for both objectives and questions, and some for only one, so a program's labels should be followed and the content kept consistent. Some programs also borrow the vocabulary of grant writing. Thomson (2025) notes that some fields use "specific aims" that "function more like what I've called objectives" (para. 10). The National Institute of Neurological Disorders and Stroke (n.d.), part of the US National Institutes of Health, publishes guidance on writing specific aims for grant applicants. It suggests adding bullet points under each aim to refine the objectives. Where a handbook uses the term "specific aims", it is worth confirming where it expects the objectives to sit.

## 7. Writing Aims, Objectives and Questions

When the aim, objectives and questions are drafted from the beginning, the following five steps give a workable order:

1. **Start from the research problem.** The aim is a response to the problem, so the problem statement is written first, followed by one sentence stating what the study will do about it.
2. **Write the aim as one sentence.** It names the topic, the population or setting and the broad purpose, and leaves out methods.
3. **Break the aim into objectives.** The guiding question is what must be established for the aim to be met, and each answer is written as "To" followed by a verb. Thomson (2025) puts the usual number at "often somewhere between three and five" (para. 4), although it varies with field and scope.

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4. **Pair objectives and questions.** The pairing can follow a parallel structure (each objective rewritten as the question it answers) or a nested one (the questions first, then the objectives on which each depends). If a program asks for questions only, only the questions are kept.
5. **Map each objective to a chapter.** As in the business doctorate in Section 4.1, every objective should have a chapter, or an analysis within one, that delivers it.

Two errors are common at step 3. The first is **an objective that is really an aim**: Thomson's (2025) example is an objective beginning "to understand the complex interplay between…", which she suggests is probably an aim. The second is an objective that names a step without saying what it is for, such as "to interview 20 managers" rather than "to identify the barriers managers face".

Once these are corrected, the set should be agreed with the supervisor or advisor **before any data are collected**. An objective changed after data collection may leave the researcher explaining why the data do not quite fit it.

## 8. Checking Alignment

Alignment is the purpose of the golden thread. If the aim and the research questions do not agree, **the project pulls in two directions** at once, and a supervisor or examiner is likely to notice.

One-to-one pairing is the cleanest form of alignment: Grad Coach's annotated research proposal example traces a master's proposal whose six questions and six objectives pair off exactly. Alignment does not require it, however, and some theses use the nested structure instead.

The following master's thesis in natural resources, a study of smallholders in Nepal, is one of them: it pairs each of its research questions with its own objectives. The extract gives the first question and its two objectives. EI stands for ecological identity, the degree to which people view themselves as an integrated part of their natural environment:

> Research Question 1: Using an existing method for assessing EI, to what extent and in what ways do Nepalese smallholders view themselves as members of an integrated social-ecological system?
>
> Research Objective 1: Explore possible patterns or correlations between EI and other traits held by study participants.
>
> Research Objective 2: Uncover potential drawbacks of existing scholarly methods for assessing and describing EI.
>
> Hughes (2024, p. 4)

Here the objectives are not the question restated. Each is **a piece of work on which the question depends**: one looks for patterns in the data, and the other tests the measurement method itself. The test of alignment is the same whichever structure is used. Every objective should serve a question, and every question should have at least one objective behind it.

Before a proposal is submitted, the aim, objectives and questions can be set out on one page and read in order. If a key term appears in one statement and disappears from the others, or a question has nothing beneath it, **the set needs revising until the three match**. Several rounds of revision are normal, and the aim may need adjusting once the objectives have been written.

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## 9. Conclusion

A research aim states the overall goal of a study in one sentence, and most studies need only one. Research objectives state what the study must establish to meet the aim; each opens with a verb and names what its step is for, not only the step. Research questions state what the study will find out, and their wording often points to the methodology. Objectives and questions may pair one to one or nest, but every question needs at least one objective behind it, and every objective needs a chapter that delivers it. Because the aim, objectives and questions set the scope of every later chapter, they are best agreed with a supervisor before any data are collected.

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## References


Barroga, E., & Matanguihan, G. J. (2022). A practical guide to writing quantitative and qualitative research questions and hypotheses in scholarly articles. *Journal of Korean Medical Science*, 37(16), Article e121. https://doi.org/10.3346/jkms.2022.37.e121

Doody, O., & Bailey, M. E. (2016). Setting a research question, aim and objective. *Nurse Researcher*, 23(4), 19–23. https://doi.org/10.7748/nr.23.4.19.s5

Herron, S. L. (2025). *The lived experience of nurses witnessing end-of-life dreams and visions of dying patients* [Doctoral dissertation, University of Massachusetts Amherst]. ScholarWorks@UMass Amherst. https://doi.org/10.7275/c7j9-hj06

Hughes, J. (2024). *Reframing ecological identity: Ecological management practices and social-ecological systems resilience in the mid-hills of Nepal* [Master's thesis, Cornell University]. Cornell eCommons. https://doi.org/10.7298/d5gb-cy60

John, J. C. (2023). *Exploring the dynamics of corporate governance change: A multi-level study of processes and mechanisms in corporate governance reforms in Nigeria* [Doctoral dissertation, University of Lincoln]. University of Lincoln Research Repository. https://doi.org/10.24385/lincoln.24874533

Luong, V. D. (2025). *Factors influencing e-commerce consumer's adoption intention towards collection-and-delivery points (CDPs): The case of Vietnam* [Doctoral dissertation, University of Lincoln]. University of Lincoln Research Repository. https://doi.org/10.24385/lincoln.30655538

National Institute of Neurological Disorders and Stroke. (n.d.). *Writing specific aims*. National Institutes of Health. Retrieved November 11, 2026, from https://www.ninds.nih.gov/funding/preparing-your-application/preparing-research-plan/writing-specific-aims

Swann, C., Jackman, P. C., Lawrence, A., Hawkins, R. M., Goddard, S. G., Williamson, O., Schweickle, M. J., Vella, S. A., Rosenbaum, S., & Ekkekakis, P. (2023). The (over)use of SMART goals for physical activity promotion: A narrative review and critique. *Health Psychology Review*, 17(2), 211–226. https://doi.org/10.1080/17437199.2021.2023608

Thomson, P. (2025, November 1). *Research aims vs. objectives – what's the difference?* Patter. https://patthomson.net/2025/11/01/research-aims-vs-objectives-whats-the-difference/

University of Sheffield. (n.d.). *Aim and objectives*. Technical report writing for engineers. Retrieved November 11, 2026, from https://mee.group.shef.ac.uk/Report_writing_website/2.13.html


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