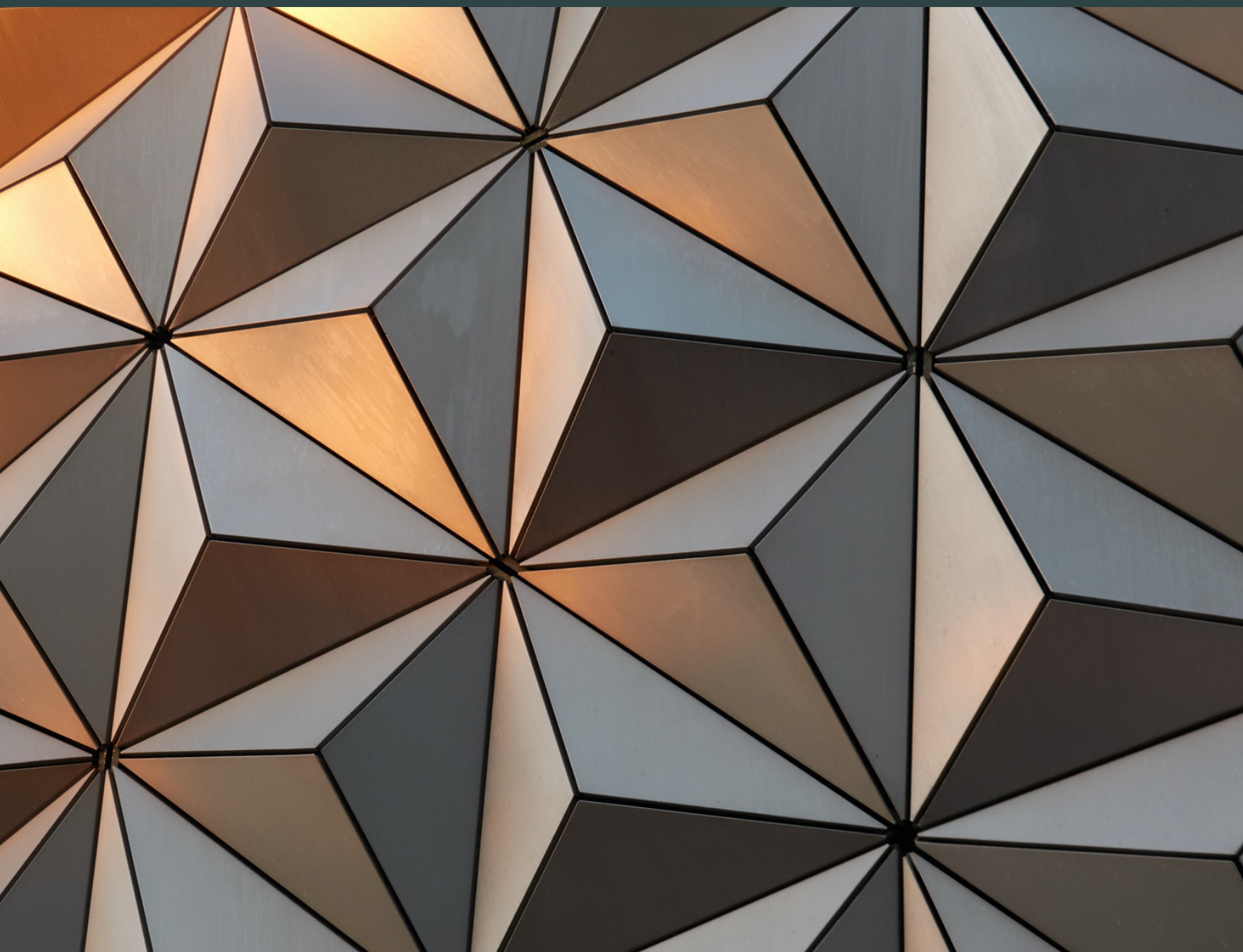
RESEARCH HANDBOOK

An Undergraduate's Guide to Research



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Greetings from the Economics Society, SRCC!

We have all written before. We have all researched a topic that interests us. However, delving into actual **academic research** is an avenue that we have probably never explored before because of lack of opportunity at school levels or simply because of the lack of need to do any research. Thus we completely understand that the ominous word 'research' may seem daunting at best and unapproachable at worst

We aim to completely dismantle any negative and false preconceived notions that you may have regarding research and guide you towards not only understanding and applying the intricacies of research but also cultivating a genuine passion and love for the same.

To facilitate us in this process we have a quote from perhaps one of the greatest researchers of all time, Albert Einstein - "If we knew what it was we were doing, it would not be called research, would it?" and something perhaps a little more substantial - this handbook

WHAT IS RESEARCH?

In its simplest form, researching means investigating systematically. How exactly do we investigate systematically?

In its simplified form, it means a systematic and in-depth investigation of a specific topic or issue, to discover new knowledge, solve problems, or develop new theories.

It involves collecting and analysing data, making observations, and testing hypotheses. Research is an essential part of the scientific method and is often used to inform policy, practice, and decision-making. All of this points to the ever-extending reach of the domains of research and how it is not limited to any one area of stud

The next question that comes into our mind is **who exactly is research for?**

Research is important for every person in some form or another. Research plays a significant role in many aspects of our everyday lives. It helps us to better understand the world around us and to make informed decisions about how to live our lives. For example, research in the fields of medicine and public health helps us to understand and prevent diseases, improve healthcare, and promote healthy livin

Research is suitable for anyone curious, analytical, and interested in discovering new knowledge or solving problems on anything under the sun.

It can be especially rewarding in that it helps people in exploring new ideas and develop strong critical thinking and problem-solving skills. Research can be conducted by individuals or teams, and can be done at any level, from undergraduate students to experienced professionals. Whether you are a student, a teacher, a scientist, or a member of the general public, there are many opportunities to get involved in research and make meaningful contributions to your field of interest.

The aim of this guide is to demystify research and help you mobilize all the resources needed to undertake academic research. The question then becomes, how on earth can we make one of the most complex, intimidating activities into something deeply profound and transformative?
But before you begin reading, it's essential to understand why you're spending time here. Research is sure as well important, prestigious and prolific.

- **Paper presentation competitions:** Arguably, the biggest benefit of research is to showcase it. The biggest benefit of DU is simply the accessibility to a huge number of paper competitions. Also, paper competitions are usually judged by a think tank or an emeritus professor. A lot of seniors have approached them for research internships - this is so much more effective than cold-mailing.

This also serves as a channel for you to connect with fellow peers. Networking and connecting with people opens up new opportunities: internships, collaborations, have fun!

- **Publications:** No work or piece of writing will be deemed worthy by external actors unless it is available in some domain. Research is a simple, yet effective shot at getting published. Hold on, what's simple is not easy. But that's what we're here for. If things go well, you can be published in research journals in college (like Artha, of Ecosoc SRCC; Strides, SRCC;) or in economic reviews/journals of other colleges (like Ashoka undergraduate economic review)

- **Cold Emailing for Internships:** A distinguishing factor, or a niche which can help you stand out from the crowd is research. Research experience shows that you demonstrate critical thinking and problem-solving abilities. It immediately sends a signal that you're adept at working on key result areas.

- **Higher Education (or low-key even helps placements):** You know the drill.

Now that you've realised the benefits of research, we're now done with the "Why Research" part. So how do you actually research now? Let's begin by understanding what to research on.

ART OF FINDING A TOPIC

This is probably 50 per cent of your work, and once done right, it will make your life much easier.

Finding the perfect question to research can be equal parts interesting and infuriating. Oftentimes, aspiring researchers give up out of frustration because even though they know what they want to research, they are likely to get stuck in conducting an effective literature review because of the swarm of information available on the internet and otherwise. You basically have to pick a needle from a haystack. Finding the resources that suit you and your research idea is a mammoth task, it, therefore, is quintessential, not just for effective literature review, but also to undertake other steps of research so that you are able to find a good research question.

Once you have that good research question, you know what to look for, where to look for it, and what to do with what you've got. Now, how do you characterize "good"?

We'll discuss with you very logical and simple steps to formulate a research question:

Manually coming up with a research question can be difficult. Even when you come up with an idea or have a concerned arena you are passionate about, developing the same into a well-structured research question takes both time and effort.

How to pick a research topic:

- Interest
- Current Affairs
- Academics
- Connecting academic courses to your interest area.

The easiest and probably the best way to see yourself through with your research project is to pick a topic from your existing area of interest/passion.

It could be literally anything under the sun, from social media, green finance to clinical psychology. Writing a research project within the realm of your interest gives you intellectual encouragement. This method of picking a niche can however be difficult to proceed with because if you don't have the requisite expertise.

As an econ student, clinical psychology or astronomy might interest you, but going out of your way to conduct in-depth research on the same can be burdening and exhausting given your existing academic priorities.

Look at the status quo, observe what you think are the first-hand problems with society and analyze them in a structured way. The best way to start is by picking up a newspaper or scrolling through the news on the internet. Reading academic articles and looking at niche academic magazines can give you a direction, and an interesting research question as well as help you choose a topic that is both relevant and prevalent in the current status quo. Current affairs not only provide insights but also help you start in the right direction.

The final way to kick off your research is to look at the academic courses you are pursuing. When you pursue a research topic from the topics within your course, (producer surplus or labor supply for instance, if you're an econ student) your literature review is streamlined and you don't have to go through the hassle of finding the required references, books and articles. You end up gaining knowledge in a subject you are pursuing academically and more often than not, you will have a certain level of expertise within the topic. You'll learn something from your course and completing your research project will then not be as exhausting or confusing.

You can also look at blending your academic topics with your interest area, for instance, the intersectionality of psychology with economics brings out some readily interesting prospects and themes.

(Intersectionality is discussed in detail later as a separate characteristic).

Developing an idea or a topic into a well-synthesized research question will require your research question to entail the following characteristics:

We start off by looking at three basic characteristics:
Relevance + Significance + Uniqueness

It is important that the topic that you choose remains relevant across time and space. Successive research work done should be able to draw from your conclusions. Writing about something extremely time sensitive, especially when it is a research project, is likely to lose its value soon. In that sense, your topic/theme should not be time-bound. Your topic should also be relevant with respect to the current landscape and status quo.

Relevance should be such that you are able to draw sufficiently from existing literature and that what you write can create value in society.

We talk about significance in both an external and personal manner. Our best work comes when we care about what we are doing, and what we are doing it for. In that sense, ensure that your research work holds significance for you, so that when you create work of significance and impact.

Uniqueness: “Ensure your research question is unique" doesn't necessarily imply that you must formulate an entirely unique research question that no one has ever thought of before. It simply implies adding a unique element to your research project that allows your research work to stand out. This could be in terms of recommendations, suggestions, data analysis etc.

This now brings us to yet another characteristic, scope: Make sure your research question has enough scope/leeway to provide you with the freedom of looking into areas hitherto unexplored and allow you to provide recommendations and/or conclusions in a way that your research work is value additive for both yourself and those reading it.

Intersectionality: This is an interesting one, (also discussed above) One way to find a topic is to look at various intersections of different topics/themes. For instance, you might be interested in football and geopolitics both. You could then easily look at how football has evolved in contemporary times due to changing geopolitical relations, or vice versa, let’s say the implications of sports (football, in our case), on geopolitics and international relations. Not only does it cater to your interests, but such a topic will also be unique too.

Niche: Intersectionality and niche complement each other.
The significance of having a niche stems from the fact that you need to reduce your research burdens to conduct a committed literature review. It is therefore important for you to focus on a subtopic within your main interest of research. It also becomes crucial to find a niche and focus on that wrt to your research question because the broader your topic of research is, the less effective your research becomes since your attention is then divided and it is harder to create any sort of impact at all.

Holistic: A well-informed research project shall be holistic in the sense that you include all aspects of your question, and that you mention the limitations of your research project. Giving a holistic overview allows both you and the reader to form well-informed opinions on the topic.

Example: Consider the following illustration. We'll show how you can execute what we've talked about till now.

Main Topic of Interest: Social Media

- Negative Effects of Social Media
  Negative Impacts
  - Negative impacts on teens
    - Changing consumption patterns (Eg., Fast Fashion)
    - Mental health problems
      - Depression, anxiety, unhealthy sleeping patterns, negative body image
      - Glorification of mental health issues
      - Cyberbullying
- Counter Arguments

Let's very briefly also talk about the difference between a research topic and a research question.

Research Topic vs Research Question:

In the simplest words, a research topic is your broad area of interest you'd like to investigate, whereas a research question has all the characteristics we discussed above. Having a research question makes your life easier. A good research question should provide you with the requisite starting point to begin your proper investigation, requisite direction and flesh out conclusions/recommendations, thus increasing the effectiveness of your research paper, as well as creating an impact.

STEPS TO RESEARCH - EMINEM

The amount of information out there explaining research is a lot. Navigating efficiently is tumultuous. However, we have (or we at least want to believe so) strategised steps for research.

The EMINEM Approach: Eminem is known for his lyrical masterpieces. Often, he systematically investigates his environment (rap battles) and researches in order to publish his piece (album). Similarly, this is your opportunity for your piece to be heard.

Disclaimer: This is in no way claiming to be the best way for research. However, what this approach does claim is effectiveness to ensure a smooth research process.

Evaluation:

The first step in conducting research is to understand the status quo. Please remember, you need to understand the way the world works. Your reader will most likely agree with a persuasive but medium impact than something ground-breaking but has loose evidence. A lot of writers often conveniently put sweeping statements (e.g. the government should invest 15% in Sector X) which reduces the credibility of their piece. Researchers should understand how specific stakeholders work. The current world is driven by actors, incentives and interests. It is important to have a good battleground for your piece.

This battleground should consist of neutral statements and observations which are not inclined towards any stance, before you transition to your argument. This will provide the credibility that you understand how the world works and that you mean business. Your piece will naturally carry a greater sense of persuasion and style.

When you are evaluating the areas for research, put a special emphasis on relevance. Your research topic should be of considerable importance. This is not just to entice your readers, but for you as an author. Why would you put in all the effort to research something which isn't exciting to you? Read research papers that captivate you from the introduction, and mimic their style for confidence.

Stakeholders: Think about this - you read an excellent article from a newspaper. This could be an Op-Ed or an expert review. If you carefully observe, the piece persuades you because it accurately describes how the stakeholders operate. You will most likely read something like:

"Currently, the government of [X] faces backlash from the minority community due to radical policies. While the agenda of the government will not change, minority leaders have tied up with the opposition parties."

In this phrase, one aspect can clearly be observed: the government has the incentive to not operate fairly because they subscribe to a radical policy. Assuming that this policy is a core ideology, it is reasonable to say that they will not forego current actions. Therefore, if I make a paper which claims that "the government now faces media attention due to backlash and thus change is bound to happen", then I am making mere surface-level statements. I need to tell the readers why the media attention faced by the government will be such a grave matter that the government will be ready to forgo a core policy. This approach convinces readers easily.

In the process of evaluation, it is also important to evaluate your strengths and weaknesses. That is, a research question can be answered from multiple perspectives and dimensions.

If you don't necessarily understand the intricacies of a particular perspective, it will be difficult for you to go ahead with your research,

For example, if you are talking about the economic landscape of the country, it is important that you have an understanding of the current relevant policies. If you are strong at climate change or business or even a niche like green bonds, feel free to tie up some relevance with these tangents, provided you have read similar papers.

Mechanisation:

The biggest benefit researchers have in this current period is the abundance of quality papers. The biggest regret any researcher can possibly have is to put in all the effort to answer a research question only to later realize that a similar paper has achieved the same objective as yours. Another big regret any researcher could have is to put in all the effort to scrounge for resources, to link one piece of evidence with the another-only to find that a recent paper already did the work for you.

The point of reading research papers is that they have already done the work for you. If the literature review is the hardest part, then most of it has automatically been done by recent papers. Yay, because now you get to put very less time into finding the appropriate literature.

An important question then becomes: how do you select among the qualitative literature you amass? Again, you know the drill; the answer lies in relevance. Just by reading the first two paragraphs, you will have a good idea about what the burden of the paper is. If your research question has the same foundation or fundamental ideas, then go ahead and use that paper. If you find the relevance to be less - see where the gap lies. Continue looking for top-tier qualitative papers from related and similar areas first, to gather a greater sense of existing work. Then, go to lower-order qualitative papers hoping that the area of relevance can be matched.

Once you are done with this, you will identify a literature gap. Maybe the assumptions used in the papers were outdated or could be improved. Maybe the international and global policies changed. Maybe some predictions were false. A single research paper is in no way near-perfect accuracy. That means, even if you get 69 researchers from Harvard University and make them write a paper, it will most likely consist of some assumptions or limitations.

Please look into the limitations of papers. The reason why we earlier recommended that you read top-quality research papers is that they acknowledge and can tell you what the current limitations are. Therefore, you can reasonably stem your arguments from them. Lower-quality research papers often cover up or sugarcoat the limitations. Thus, reliability is susceptible.

Research papers from top-quality institutions and think tanks often provide a bunch of citations. With just one paper, you can backtrack and go to each citation, redirect to the previous paper, and again see its citation. Bingo-with just one paper, you now have a web of sources to strengthen your piece.

Literature Review:

TOP-TIER SOURCES:

1. Prestigious institutions like the University of California, University of Chicago, University of Michigan, MIT, UPenn, Washington
2. International institutions like the IMF, World Bank, ADBI, EU, UN, etc
3. Reports from governments, like the Royal Assets of Government of UK, US Gov special reports PDFs, Indian Government, NITI Aayog reports (inclusive of ministries)
4. Prestigious think tanks: Brookings, J-PAL, Carnegie, Observer Research Foundation, RAND, CFR, [refer to
5. Prestigious Journals: Taylor and Francis, SagePub, Springer etc.
6. Prestigious websites: Foreign Policy, Diplomat, HBR, Economic Times, Al-Jazeera, Reuters

Any source which does not hold accord to the ones mentioned above is a medium-tier source.

LOW TIER SOURCES: (PLEASE AVOID)

1. Medium.com and wikipedia.com
2. Media pages which are not well-known: Regional newspapers, for example
3. Think tanks without a sound acumen:
4. Youtube Videos-> Vice News, TL/DR, other news channels

Identification:

Identify methods of research.

Research methodology can make or break your research. In essence, all your research is fundamentally solved through one or more techniques of how you approach your problem. Based on your current knowledge, skill sets, burdens in research and impact-two broad categories can be made:

Qualitative Research: This entails research aimed at analyzing behaviors, rationale and motivations generally behind a particular question. The aim of qualitative research is to analyze and emphasize the qualitative evidence used in your arguments and to deduce conclusions from it.

This type of research is the most common among undergraduate and graduate students due to the relevance and relative ease of conducting research. It is usually undertaken by students who are adept at critical reasoning and can find patterns or lapses in structured arguments or even unstructured pieces.

However, it is often time-consuming and requires a lot of effort. There are numerous methods for conducting qualitative research, the most common being interviews in various formats. The average number of participants chosen for such research is about n=35.

Quantitative Research: This definitely sounds intimidating, however, once you understand the dynamics of quantitative research clearly, everything gets a lot easier

While anyone can conduct quantitative research, some prerequisites are needed. Not only will you need to have at least a basic level of competency in statistics, economics, and mathematics, but you will also need to be able to use various software like MS Excel.

In quantitative research, you can conduct experiments, access government websites or use other related reports to ensure you gather the data. After completing the process of data collection, you will be involved in the formulation of models and graphs for equations you either cite or decide to come up with. Multiple stages of analysis will be coupled with multiple variables, and the consequent relationship will also be established.

In most of the research pieces you will cite, an observation should come to your attention - papers don’t follow a single approach. Therefore it is highly recommended to have a fair and comprehensive understanding of both the quantitative and qualitative stages of research.

Niche:

Picking a needle in a haystack.

You might be growing irritated, confused and stressed with the amount of data and research you are dealing with. The only advice we have for you is a quote from the movie, Sully - Brace for Impact. There is a lot more to come before you become a published researcher.

After you are done incorporating your research, you need to pick a niche. A "niche" is a streamlined, focused area in your piece that contains the strongest or most persuasive material which sets your research apart from others.

You will stumble across a lot of arguments and encounter evidence of various levels of strength. Your job is to weave a narrative and place your most persuasive arguments in such a way that they become convincing.

In essence, you must narrow your findings to a niche and develop multiple levels of analysis within that niche. The biggest reason for the niche is that limited burdens can lead to convincing arguments. When you claim a big impact, you are also tied down to prove it. Picking a niche will help you navigate through your research.

An important way you can find a niche is to prioritize your arguments. The best arguments should ideally be placed first and dealt with extensively. This is most likely your battleground for a niche. Now, it is important that you make extensions.

Extensions can be of various kinds: maybe there's a new policy you wish to propose; maybe the status quo needs changes; maybe an intervention model is needed; maybe no intervention is best; maybe the government needs to provide incentives; maybe the government needs to stop the incentive program; etc. Any kind of extension should be thoroughly fleshed out so that it gains a sense of credibility.

Execution:

After you pick your niche, now is the time to execute your hypothesis. This is usually done in two broad ways, as discussed above.

From a qualitative research perspective, you can conduct interviews (the academic standard is 35, but for undergraduates, even 10 is fine) assuming that transcriptions have also been made.

When working on a policy report or a research report, your primary goal will be to identify existing gaps and conduct a likelihood analysis of your recommendations.

From a quantitative research perspective, data is the storyline. Your unique findings and the data you wish to portray to strengthen your arguments matter a lot. It is always said that correlation does not mean causation. Similarly, you can expect to conduct multiple levels of analysis, a major part of which is regression.

Again, all of this will sound overwhelming. But unless you take the additional step to back up your claims, you really wouldn't have a convincing narrative to show anyone why your research is value-additive.

Measurement:

Measure your results, and finally have a thorough understanding of your discussion.

Discussion (or results achieved) is the most critical part of the research paper. Your entire paper could simply be a representation of how your discussion is going. You must ensure that there are consistent and relevant principles in place, as well as metrics that are weighted. Your conclusions become very important.

The limitations you faced in your paper are equally crucial to mention. It becomes very tempting for researchers to sugarcoat your limitations and claim that you have done an excellent job. However, failing to highlight limitations is one of the key characteristics of a poor research paper. It is very important that you acknowledge whatever shortcomings you faced while carrying out your research.

These limitations are important to address, as they should not mislead the average person into believing something that could be false. Some examples of limitations can be:

- You have chosen only one particular location for your interviews in your research
- You have chosen only one class group of participants and expected representative results in the whole sample
- Your sample is inaccurate or could be somewhat biased.
- Your method of research had limitations, say your google form was not multidisciplinary
- Your case rests on recent assumptions which you understand might not be true in the future
- Your equation focuses on a main variable which can be influenced by external factors which can impact your results.

Tip 6 - Discussion: be frank in acknowledging limitations!

CITATIONS

While conducting research, you will use multiple sources to support your arguments and facts. These sources that you are using need to be given proper credit. This process of acknowledging others' work is called 'citing'. It could be in the form of a number that corresponds to a reference in your work, or it could be a link to a website or a source.

Citations form a **critical part of your research.** Think of it as giving someone a shout-out or a "hat tip" - it shows that you respect their work and are not trying to pass it off as your own. They help show that you've done your research and you're not just making up information. They also make it easy for other people to find and read the sources you used, so they can check your work and learn more about the topic.

Google Scholar is a great search engine that allows you to search for scholarly literature, including articles, books, theses, and conference proceedings. It is the most credible tool as it refines your search results of a topic and provides you with credible research papers and articles which are rigorous and properly cited. Moreover, it is a big help for writing literature reviews as well.

Several **different styles of citation are used** in academic and professional writing. Some of the most common citation styles include:

1. **APA (American Psychological Association) style:** This style is commonly used in the social sciences and is often used in psychology, education, and other fields. It uses a specific format for in-text citations and a reference list at the end of the document.
2. **MLA (Modern Language Association) style:** This style is commonly used in the humanities and is often used in literature, language, and other fields. It uses a specific format for in-text citations, and a works cited list at the end of the document.
3. **Chicago style:** This style is commonly used in the arts, humanities, and social sciences, and it includes both a footnote/endnote system and a reference list at the end of the document.
4. **Harvard style:** This style is used in a wide range of disciplines and is characterised by the use of in-text citations and a reference list at the end of the document.

There are many other citation styles, and the style you should use will depend on the guidelines for the specific assignment or publication you are working on. Most of the time, you will be using either APA or MLA format at the undergraduate level.

Citing manually takes up a lot of time and is sometimes wrong due to minor mistakes. So, it is better to use an online website to do it in a quick and proper manner. You can use **many websites to cite your sources**; the best one will depend on your project's specific needs and your citation style. Some options that you might consider include the following:

1. **Citation management tools:** These tools, such as Zotero and EndNote, allow you to create and organize your citations, as well as insert them into your document in the appropriate format.
2. **Online citation generators:** These tools, such as EasyBib and Citation Machine, allow you to enter the bibliographic information for a source and then generate a citation in the appropriate format.
3. **Style guides:** Many professional organizations and academic publishers have their own style guides, which provide detailed instructions on how to format citations in their preferred style. You can often find these guides online for free.
4. **Library databases:** Many library databases, such as JSTOR and ProQuest, provide citation tools that allow you to create and save citations in various styles.

All in all, using citations helps ensure your work's integrity and makes it easy for other people to find and read your sources.

PLAGIARISM

While writing research reports, it is essential to ensure that you are not just copying someone else's content but using it as inspiration to curate your own unique piece. In simple words, plagiarism is using the words or ideas of someone else without proper attribution or citation. There are **many different types of plagiarism**, including:

- Copying and pasting text from a source without proper citation
- Paraphrasing a source without proper citation
- Using someone else's ideas or research without proper citation
- Submitting work that has been written by someone else as your own
- Using images, charts, or other media without permission

Plagiarism is a big deal because it's not fair to the people whose work or ideas you're using. Imagine if you worked really hard on a school project or paper, and someone else just copied it and passed it off as their own - that would be really frustrating, right? It's the same for people whose work is being plagiarised. So, any time you use the words or ideas of someone else in your work, you need to provide proper citations to give credit to the source.

So, it becomes important that one avoids plagiarism in any case. There are various ways to avoid plagiarism. Some of them are:

1. **Cite your sources:** Proper citation is one of the most effective ways to avoid plagiarism. Whenever you use someone else's ideas or information in your own work, you should give credit to the original source by citing it.
2. **Use quotation marks:** If you are directly quoting someone else's work, be sure to use quotation marks to indicate that the words are not your own.
3. **Paraphrase:** If you want to use someone else's ideas in your own words, be sure to paraphrase them carefully. Make sure that you understand the ideas fully before you start paraphrasing, and be sure to give credit to the original source.
4. **Use a plagiarism checker:** Many online tools can help you identify and avoid plagiarism. These tools scan your work for any copied text and highlight any areas that may be problematic.

There are **several websites that can help you avoid plagiarism** by checking your work for copied content. Here are a few options:

1. Turnitin: This is a popular plagiarism checker used by schools and universities. It compares your work against a database of web pages, academic papers, and other sources to identify copied content.
2. Smallseotools: This is a free online tool that allows you to check your work for plagiarism by entering the URL of your document or by uploading a file.
3. Copyscape: This website allows you to check your work for plagiarism by entering a URL or by uploading a file. It also offers a plagiarism prevention service that can help you protect your content from being copied by others.
4. Grammarly: In addition to checking your work for grammar and spelling errors, Grammarly's premium version also includes a plagiarism checker that compares your work against billions of web pages and over 16 billion academic papers.

It's important to note that these tools are not foolproof and may not catch every instance of plagiarism. The best way to avoid plagiarism is to properly cite all sources and use quotation marks around any text that you borrow directly from a source.

TIPS

TIP 1:

Read Generously to Understand, then Critically to Engage and Evaluate

For an advanced project, take the time to read your most promising sources twice, first quickly and generously to understand them on their own terms. If you disagree too soon, you can misunderstand or exaggerate a weakness. Then reread them slowly and critically, as if you were amiably but pointedly questioning a friend; imagine his or her answers, then question them. If you disagree, don't just reject a source: read it in ways that will encourage your own original thinking. You probably won't be able to engage your sources fully until after you've done some reading and developed a few ideas of your own. But from the outset, be alert for ways to read your sources not passively, as a consumer, but actively and creatively, as an engaged partner. At some point, better earlier than later, you must look for ways to go beyond your sources, even when you agree with them.

TIP 2:

Confirm Unsupported Claims

You can prove something that a source has only assumed or speculated. For example, Smith recommends visualisation to improve sports performance, but a study of the mental activities of athletes shows why that is good advice.

1. Source only speculates that X might be true, but maybe you can offer evidence to show that it definitely is.
2. Source assumes that X is true, but maybe you can prove it.

TIP 3:

Apply a Claim More Widely

You can extend a position to new areas. Continuing same example, Smith has shown that medical students learn physiological processes better when they are explained with many metaphors rather than by just one. The same appears to be true for engineers learning physical processes.

1. Source correctly applies his claim to one situation, but maybe it can apply to new ones.
2. Source claims that X is true in a specific situation, but maybe it's true in general.

TIP 4:

Creative Disagreements

You can narrow down as to which idea you do not resonate with, and then follow it

TIP 5:
Refer to OWL Writing Lab

Mode	Purpose	Merit
Summary	When you only need general idea/context	Never serves as a good evidence
Paraphrase	• Paraphrase when you can represent what a source says more clearly or pointedly than it does • You must use your own words and your own phrasing to replace most of the words and phrasing of the passage	Can be used
Quotes	• The quote chosen is from authority • It backs up your view. If it seems like it loosely backs up, then paraphrase. • They exactly tell what's needed	Best suggested to be used

Record the context of a quotation. Record the scope and confidence of each statement. Do not make a source seem more certain or expansive than it is.

TIP 6:
Additional Sources

1. Quality of the evidence enables brainstorming: Try looking out for research papers from prestigious universities or prestigious papers. They have already done most of your work-literature review, and things to ponder. For example, I had real difficulty finding out information about Public Distribution System on the internet. I needed insights into current policy challenges and found vague recommendations in multiple papers. However, I surfed more and found a University of California Paper which helped me complete the assignment super quickly.
2. Synonyms: Google Scholar is super case-sensitive. You need to find the closest substitute of the key words to find more research material.
3. Youtube, Podcasts: Most of my personal recommendations were inspired by ideas shared in podcasts. Podcasts are crisp, and hence they save you time. I remember listening to behavioural finance podcasts to complete my Artha Paper.

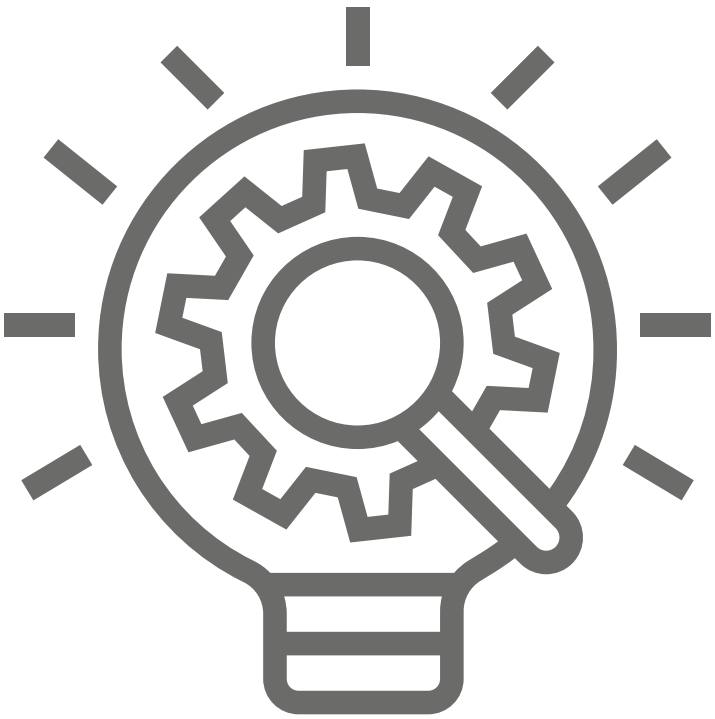
The Road Ahead:

Rigorous research work requires a lot of motivation and encouragement to keep going. Impactful work isn't created in a day or a week, and oftentimes, it is normal to have thoughts of regret and moments where you just want to quit. Keeping up with your research will require perseverance.

However, seeing your work published will give you a lot of motivation to keep up with your work and produce more work in the future.

As a member of the Economics Society, you will have numerous opportunities to work on whatever interests you. The society will also provide you with the platform to be a published researcher. But there are other ways, which you can pursue individually as well as over the long term.

- Undergraduate journals (society journals and university journals separately)
- Paper presentation competitions
- Magazines
- Working under professors/phd/mphil students
- Start your own initiative
- Networking with other research enthusiasts and collaborations



WHAT DOES RESEARCH MEAN TO YOU?

When one actually starts delving into the intricacies of research, it can become overwhelming trying to find one's research style and figuring out what research really means to you on a personal level while finding your own unique voice. During this process, to develop your own research style, it is important to understand what works for you, and what your research interests are and then find the intersection area between these two.

It is important to care about your research interests as the more invested you are in your own research, the easier it is to explore your research question further and come up with interesting and distinctive papers and publications.

Your research interests matter as they not only satiate your curiosity but also throw light on an issue that you are genuinely passionate about that has probably been left unexplored before or has never been looked at through the lens that you propose.

It is only through research that innovation can take place and actual change be implemented. Robust research is incredibly effective in convincing others why your opinion matters and increasing the depth of your understanding of a particular subject.

Writing papers on relevant and pressing global issues that have a direct effect on the lives of many gives your research a tangible purpose and you play a direct role in bringing clarity thus creating a positive impact.

The process of research is admittedly one that is long, extensive and often tedious at times. With the overwhelming amount of literature already existing in academia and the ever-evolving rigorous and intellectual discourse that takes place, the question of what you might have to possibly offer especially as a first-year undergraduate student may arise. What can you as an amateur researcher add to the current reservoir of information that cannot be found with the click of a button on JSTOR or Google Scholar?

This leads us to the important question that might end up dissuading many from pursuing research - Does your research have to be ground-breaking?
The simple answer to this is no.

The point of research is to primarily contribute to the existing knowledge by carefully analyzing a problem through a scientific lens. This problem can be solved by bridging a gap in information, conceptualizing new theories and formulas, advancement of existing knowledge and theories, helping gain clarity on a disputed and convoluted topic and so on. Research is not simply about creating a new formula or theorizing a new line of argument.

This type of approach might get exhausting and not lead to any fruitful results as finding a totally unique perspective on any topic is obviously difficult. Instead, research can act as a link between concepts or lines of argument. Research can be used to create relationships between seemingly unrelated topics providing a multidisciplinary and holistic perspective on a seemingly over-discussed subject.

Pre-existing knowledge can be connected by using research as a pedagogical tool to facilitate the learning of more challenging abstract concepts. The status quo, that is, the existing state of affairs and the way things are perceived when it comes to any political, social or economic issues should be challenged with any research question that you take up.

This makes sure that any kind of value addition that you contribute does not become obvious or implied. Instead, it adds to the existing discourse in a meaningful manner without the need of introducing a new theory or formula.

Ultimately, research can take on a purpose that is personal to you, and this is something that you will discover once you actually start the process of brainstorming and writing. The only underlying commonality between all forms of research is that it should be helping in describing a phenomenon, action or event in a scientific manner in a general manner where it is possible to look at the larger picture from an objective perspective.

With the above information in mind, it is of utmost importance to avoid simply paraphrasing. Research is not about collating information from a comprehensive source and passing it off as something original. You need to analyse and synthesize the information available to you using a scientific and creative perspective.

Finding an article that directly correlates to your topic and spending 30 pages simply paraphrasing the same is not only unproductive but also creates zero value addition. Research papers are essentially the equivalent of solving a mystery, and your work should reflect that complex process of synthesizing information through analogy and analysis.

WRITING RESEARCH QUESTIONS

Research questions help you stay laser focused on your passion. Questions should be specific, measurable, and realistic:

SPECIFIC • *What exactly do you want to accomplish?*

MEASURABLE • *How will you measure success?*

REALISTIC • *Is it possible to achieve?*

Here are some examples of research questions and how they rank. How would you revise these questions to ensure they are specific, measurable and realistic?

TOO NARROW *What is the number of students currently enrolled in art in our school district?*	**LESS NARROW** *How does the education level of arts specialists impact enrollment in art courses in our school district?*
TOO BROAD *What are the effects of art on students' long term academic success?*	**MORE FOCUSED** *How does enrollment in art courses correlate with academic performance in middle school students?*
TOO OBJECTIVE *How much time do young students spend making art per day?*	**MORE SUBJECTIVE** *What is the relationship between art making and academic success in math among elementary students?*
TOO SIMPLISTIC *How are schools addressing creative development in students?*	**MORE COMPLEX** *What are the effects of interdisciplinary measures by classroom teachers incorporating art on a weekly basis among 4th grade students?*

Source: Art of Education

ADDITIONAL SOURCES

Grading Rubric - Research Paper - Fellowship Program

CATEGORY	4 POINTS - Exceptional	3 POINTS - Good	2 POINTS - Fair	1 POINT - Poor
Introduction	• Grabs interest • States topic and thesis clearly • Previews entire structure of paper	• Fairly interesting • States topic and thesis clearly • References paper structure somewhat	• States topic or thesis with little interest or clarity • Minimal reference to paper structure	• States topic and thesis with no interest or clarity • No reference to paper structure
Quality of Research	• Contains several sources • Sources are reliable and relevant • All sources and methods logically support thesis • References cited appropriately and correctly	• Contains some sources • Sources are reliable and relevant • Sources and methods somewhat support thesis • References cited correctly sometimes, but not always	• Contains few sources • Sources aren't always reliable or relevant • Sources and methods somewhat support thesis • References cited correctly sometimes, but not always	• Contains no reliable, relevant sources or methods that support thesis • References not cited correctly
Content Knowledge	• Strong logic that always supports thesis in all paragraphs • Examples, diction, and general content all illustrate expertise and critical thinking	• Sound logic that supports thesis in most paragraphs • Examples, diction, and general content mostly illustrate expertise and critical thinking	• Logic somewhat supports thesis in some paragraphs • Examples, diction, and general content illustrate intermediate understanding without critical thinking	• Limited logic that does not support thesis throughout • Examples, diction, and general content illustrate basic understanding without critical thinking
Conclusion	• Excellent summary of thesis and arguments • Impactful concluding statements, usually motivating action	• Generic summary of thesis and arguments	• Generic but incomplete summary of thesis and arguments	• Minimal or missing summary of thesis or arguments
Writing	• Always relevant and useful to supporting thesis • Free of grammatical or spelling errors • Logical flow with smooth transitions • Polished and professional	• Mostly relevant and useful, but with some digressions or ambiguities • Only minor grammatical or spelling errors • Logical flow, but with some rocky transitions	• Several digressions or ambiguities • Several ideas require clarification • Many grammatical or spelling errors • Challenging to read	• Whole sections are confusing, off-topic, or unnecessary • Grammatical and spelling errors abound • No apparent organization

Source: AAPC

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