Week 1: Introduction to Academic Writing

Lesson 4: Leveraging AI and Module Summary

Course Video 1: Leveraging AI and Module Summary

Transcript

Hello everyone, welcome to this module, where we are talking about the summary of this module and we will also talk about how we can leverage AI tools to do things in academic writing. So we have already discussed what academic writing is and the purposes for which we use academic writing. To start with, it's used for academic purposes like writing examinations, writing assignments, doing academic reports, such things, and it has very specific features and conventions that we need to follow. You may call it slightly rigid, but it works really well. You have to follow certain types of rules and regulations. And then it's also meant for people who are part of a particular academic community. For example, if you are in engineering, probably you are writing for people who are in engineering. Or if you are doing, let's say medicine, you write for people who are in medicine. And then also the topics that are discussed in academic writing are related to academic subjects. For example, if you are in computer science, probably you are talking about topics related to computer science like big data or use of artificial intelligence for certain purposes or topics, anything that is related to computer science. Now, when we talk about purposes of academic writing, we are talking about how we can convey our ideas to the members of our academic community. Let's say if I am a faculty member in the area of, let's say, applied linguistics, my academic writing will perhaps be directed towards people who are working in my community, that is people who are working in the field of applied linguistics. So if you are in computer science, probably you will be writing for people who are in computer science. So certain words, phrases, terms, all those things, you can take those for granted because people will understand, you may not have to explain everything from the start. And then some purposes we are there to in academic writing and those purposes are quite common across scientific science and engineering disciplines. For example, things like informing, explaining, persuading, analyzing, evaluating information. These things we do anyway in other disciplines also, but these could be very specific to one particular discipline the way we do it. And we share knowledge and research findings or our ideas with the academic community. I have already talked about it. And then when we talk about the types and features of academic writing, we are talking about in types, academic writing can be descriptive, can be analytical, can be persuasive, can be critical. In science and engineering, generally you will be doing descriptive and analytical. At a very high level like PhD and beyond, probably people do persuasive and critical. When we talk about features, we talk about some of the features, main features of academic writing are objectivity and when we write, those are generally thesis driven. That means you make a claim and then support that with evidence. And then you follow academic conventions. That is why academic writing is convention driven. It is evidence based because whatever you claim, you need to find evidence, research evidence or other kinds of evidence to support that. Can be very complex and it becomes very formal. And complex in the sense that people outside the community may not be able to understand everything that you say. Then another feature of academic writing is originality, which means you bring novelty

and value to academic writing. It may not have to be completely, kind of entirely original or something that you bring on your own. You may build on what people have already done and then you can project your ideas or build your ideas and you can come up with something original. You can still claim it as original, though you are taking help of other arguments that are already there in the field and you are building your ideas on those. And then it must be built on existing literature and facts. You cannot come up with something out of nowhere, it has to be built on what is already there. And what you do, you identify the gaps in the existing literature and then build your arguments with the help of whatever evidence you have and you conduct experiments, get gathered data and then try to bridge the gap that you have already identified. Next is plagiarism in academic writing. We have already discussed this, some of the main points are, when you claim others ideas or others findings as your own, that amounts to plagiarism in academic writing. That happens because either you are not following appropriate citation norms, let's say you are asked to follow APA style and you are not following that style of citation, probably it may amount to plagiarism. Or you may not, if you don't cite somebody because you think that everybody knows why should I cite and give credit to somebody, it may amount to plagiarism. Then it can be, plagiarism can be intentional, plagiarism can also be unintentional. If you don't know the norms and you quote, let's say 100 or 150 words from a place and put it in your thesis and you are citing somebody's name, that may be still considered plagiarism because that violates the norm, unless you get written permission from somebody, if you are citing somebody from a paper and that the number of words goes beyond, let's say 60 words or 45 words, then it may be considered plagiarism. You don't know the law, you don't know that side of it and you don't know the norms, that's why you are just taking 100 words and citing, even if you give credit, may still be considered plagiarism. Intentional, where you cite yourself, which may be self-plagiarism, you have already published a paper and you take information or ideas or words and phrases from the same paper and present it in another paper and without actually giving credit to you or yourself or taking a significant amount portion from one paper and using it in another paper, that can be also plagiarism. And sometimes people take ideas and don't give credit to the original author, that can be also plagiarism. Plagiarism may involve lack of integrity, which means, you ask an agency, there are people who work in that agency, they have PhD, they write for others, so you pay them and they write for you, that can also be plagiarism. And when it comes to avoiding plagiarism, there are things that you need to know. First thing, you need to know intellectual property rights law, which means where you have to give credit, how you have to give credit, what you need to do, how you need to do. The laws have to be very clear to you and if you know the laws, you will do well. And the next one is learning to paraphrase and summarize well, which means you need to understand how to paraphrase and paraphrasing involves certain steps and you need to know how to paraphrase and how to summarize, that is also a part of a strategy of avoiding plagiarism. Then you familiarize yourself with citation and referencing norms, what kind of citation norms, what kind of referencing norms would be appropriate for this, you need to know that really, really well, then you can avoid plagiarism, unintentional plagiarism generally in this case. And last of these could be keeping track of sources used in the work, sometimes you take ideas and you forget about from where you have taken and you go on to do things and just write without mentioning the original author, that may amount to plagiarism. So knowing, I mean, keeping

track wherever you are taking information from, please make a record, keep maintain a record of that, that using that you can avoid plagiarism. When it comes to intellectual property rights, we are talking about copyrighted material, it could be, you know, we have mentioned here where it could be images, it could be tables, it could be figures, poems, stories, lyric, audio video clips, these can be, you know, these can be copyrighted. And if they are mentioned that these are copyrighted materials, you need permission from them. And in case of images, tables, figures, poems, stories, lyrics and all that, you need written permission in a particular format from the person who has created it and who has copyright over it. So it could be a company, it could be a person, both. And in case of when it's within limits, like let's say you are taking 45 words from an article and citing, you will not need to write to the journal and author and take their permission, you don't need. So you need to understand then where to take permission and where you can use without their written permission. And then there are copyright free materials, you can find them on Project Gutenberg and other, you know, Creative Commons license holding material, you have, you may find them online. There are several websites, that give you those kinds of materials. When it comes to, now let's talk about leveraging AI in academic writing, to begin with, when I talk about AI tools, I'm thinking about ChatGPT, Copilot, Gemini, Grammarly, Perplexity, some of these you might be familiar with, some I'll be talking about in some detail through this course, but choose the kind of tools that you are comfortable with, you think you find useful, and you have seen or you have been kind of trained in some way. So let's talk about the purposes for which you can use AI, if you find something difficult to understand, there is a concept you find difficult to understand, you can ask AI to simplify for you, but it may not do a great job all the time, it may make mistakes, so you should be careful about that. And then sometimes you need immediate feedback, you may not have a teacher all the time, so you want to correctly check your grammar, you want to check your organization, you want to check your content, all those things can be checked using any one of these platforms, and you can ask for feedback, and you can get real-time immediate feedback from AI tools, free AI tools. Then you can also use AI tools to scan research databases, and you can do that using, let's say, you have already AI tools attached to databases, so let's say you are using Elsevier, or you are using Springer, you are using Taylor & Francis, they have their AI's operating there, so they are there to help you, but if you have downloaded articles, and you want to find out which are useful or not, you can upload those articles to this, and then ask them to verify and tell you. Perplexity does a great job, and people use perplexity for scanning research databases, or for scanning through articles, set of articles, so you can use those. Then summarizing the search paper, sometimes you may not want to read an entire research paper to find out something related to a particular idea, so you can ask AI to read through this and give you, scan the research paper for some particular kind of information, that you can do with one or more AI tools. Then you can summarize research papers, you can also identify research gaps, if you summarize, you can also identify, you can say, can you go through these two or three papers and find out if there is anything, something that has been done related to some gaps that are related to, let's say, construction materials or something like that, you identify your topic, and then it will identify for you what has not been done in the field, and that may help you, but you need to verify. AI is not foolproof, you need to verify from other sources, using other sources. You can also analyze data, can be qualitative, can be quantitative, you can ask for what

kind of quantitative methodology, quantitative tools, not tools exactly, but could be something like what kind of quantitative steps you can take, for example, or quantitative procedures that you would need to use for certain kind of analysis, for example, if you are comparing two sets of people, two sets of scores, you can ask them what kind of statistical procedure would be appropriate, and might say that this or that, might say a t-test would be there, say what kind of t-test, how do I do it, can you show me a sample, this is how you can use this. And you can also generate images and videos that are of your own use, for example, if you are teaching something or if you are using some, let's say you are using animation and you want to create some kind of animation video, you can ask, for example, right now you have Gemini, which works on Google 9, Pixel 9 phone, it generates videos on the basis of the ideas you give it. So you can always use those videos or animation videos or images for your research purposes, for your presentation purposes in academic writing. And then you can also organize references, if you are citing from different sources, you give the details to AI, it can create your references, but you should be careful because it makes mistakes, so please verify and then ask it to verify. When we use AI, one aspect of use is ethical side of AI, and that you need to follow ethical norms, there you need to follow the ethical norms very carefully. By that I mean, you need to declare openly the kind of AI tools you have used and the purposes for which you have used, otherwise there will be a problem ethical issue there. And then when you are using, make sure that it's free of any kind of favoritism or discrimination, because that might happen. Let's say in the class that you are asked not to use AI and produce an assignment, nobody is using, but you are using to produce an assignment that creates a problem of discrimination. So make sure you avoid that. Then acceptance of responsibility, which means you take responsibility of using this and using responsibly. Let's say, for example, you get data, you take interviews and you ask an AI tool to analyze this, but make sure that you are not giving the data to the tool, make sure you go to the setting, make appropriate changes, not submit the entire data to the AI platform. And you must know, and it's related to this, is another point, which is the knowledge of data privacy. How to handle the data when you are using AI tools is your responsibility. You need to learn how to handle data. The problem here will be plagiarism. You will be accused of plagiarism if you don't follow these norms. That brings us to the end of this morning. Thank you.