THE USE AND PERCEPTIONS TOWARDS AI TOOLS FOR ACADEMIC WRITING AMONG UNIVERSITY STUDENTS

ÜNİVERSİTE ÖĞRENCİLERİNİN AKADEMİK YAZIM İÇİN YAPAY ZEKA ARAÇLARININ KULLANIMINA YÖNELİK ALGILARI

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Abstract

AI- powered tools like ChatGPT, Grammarly and other writing assistants have become increasingly accessible offering opportunities for guiding academic writing development within ESP contexts through feedback, suggesting improvement and aiding error correction. The uses of AI-powered tools in academic writing include grammar and syntax checking, style and tone adjustment, clarity and conciseness suggestions, plagiarism detection, reference an citation management, content generation and brainstorming, targeted feedback on writing quality, thesis statement and argument strengthening, vocabulary enhancement, content structuring and outlining, translation and language support, research assistance, sentence rephrasing and paraphrasing, automated summarization and peer-review simulation. The increasing variety of tools and the rich repertoire of uses they offer makes it necessary to provide guidance to learners on how to use them effectively and ethically. The increasing use of AI-powered tools in academic writing practices has also brought about concerns regarding ethical considerations and potential pitfalls including over-reliance on AI and issues of academic integrity. Considering these issues, this presentation will address how AI can be effectively used to assist the academic writing process and offer alternative strategies for academic writing teachers to ensure academic integrity while using AI-powered tools. In order to gain an insight into the attitudes and experiences of academic writers with AI, surveys will be conducted with graduate level students in social science programs. The ultimate aim of the study is to determine the current situation about the use of AI by undergraduate and graduate level students and provide guidance to educators on using digital tools to help students develop specialized academic writing skills while ensuring the pedagogical balance between AI and issues of academic integrity by providing information about best practices and examples.

Keywords: Artificial Intelligence, Academic Writing, Academic Integrity

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RESEARCH ARTICLE

Özet

ChatGPT, Grammarly ve diğer yazma asistanları gibi yapay zeka destekli araçlar, giderek daha erişilebilir hale gelerek, dönüt, iyileştirme önerileri ve hata düzeltme yardımı yoluyla ESP (İngilizce Özel Amaçlı) bağlamlarında akademik yazma gelişimini yönlendirme fırsatları sunmaktadır. Akademik yazımda yapay zeka destekli araçların kullanım alanları arasında dilbilgisi ve sözdizimi kontrolü, stil ve ton ayarlaması, açıklık ve özlülük önerileri, intihal tespiti, referans ve atıf yönetimi, içerik üretimi ve fikir geliştirme, yazım kalitesine yönelik hedefli dönüt, tez cümlesi ve argüman güçlendirme, kelime dağarcığı geliştirme, içerik yapılandırma ve taslak oluşturma, çeviri ve dil desteği, araştırma yardımı, cümle yeniden ifade etme ve açımlama yapma, otomatik özetleme ve akran değerlendirme simülasyonu bulunmaktadır. Araçların çeşitliliğinin artması ve sundukları kullanım alanlarının zenginliği, öğrencilerin bu araçları etkili ve etik bir şekilde kullanmalarına rehberlik edilmesini zorunlu hale getirmektedir. Yapay zeka destekli araçların akademik yazım uygulamalarında artan kullanımı, etik kaygılar ve aşırı bağımlılık ile akademik bütünlük konuları gibi potansiyel riskleri de beraberinde getirmiştir. Bu konular göz önünde bulundurularak, bu sunumda yapay zekanın akademik yazma sürecini desteklemek için nasıl etkili bir şekilde kullanılabileceği ele alınacak ve yapay zeka destekli araçlar kullanılırken akademik bütünlüğü sağlamak adına akademik yazma öğretmenleri için alternatif stratejiler sunulacaktır. Ayrıca, sosyal bilimler programlarındaki lisansüstü öğrencilerle anketler yapılarak akademik yazarların yapay zekâ ile ilgili tutum ve deneyimlerine dair bir anlayış geliştirilmesi hedeflenmiştir. Çalışmanın nihai amacı, lisans ve lisansüstü düzeydeki öğrencilerin yapay zeka kullanımına ilişkin mevcut durumu belirlemek ve eğitimcilere, dijital araçları öğrencilerin özel akademik yazım becerilerini geliştirmelerine yardımcı olmak için nasıl kullanacakları konusunda rehberlik sağlamaktır. Bu süreçte, yapay zeka ile akademik bütünlük arasındaki pedagojik dengeyi sağlamak amacıyla en iyi uygulamalar ve örnekler hakkında bilgi verilmektedir.

Anahtar Kelimeler: Yapay Zeka, Akademik Yazma, Akademik Dürüstlük

1. INTRODUCTION

The number and variety of AI tools have considerably increased in the past few years and their use has also become more widespread among academia as well as other fields. Research suggests that the growth of AI will affect all aspects of life in the future decades. Accordingly, Dwivedi et al., (2021) discuss AI's transformative role across industries like healthcare, finance, and manufacturing, enhancing productivity and expanding into human-dominated tasks such as chatbots and autonomous vehicles. They report that experts predict AI will reach human-level capabilities by 2075, though concerns remain about job displacement and ethical issues. The World Economic Forum estimates AI could impact 20% of UK jobs, with higher rates in emerging economies like China and India. Therefore, while AI drives innovation and job creation, it may displace low-skilled roles, particularly in developing nations.

In education and academia, the impact of AI has become more prevalent in the past decades motivating more research on the effects of AI in the education field and academia. Although the uses of AI have brought many advantages for students, it has also brought about some concerns which include accuracy, credibility and ethics. Recent studies focusing on AI discuss various issues including the accuracy, credibility and ethics brought about by the widespread use of AI. The related literature raises concerns about the use of AI tools such as ChatGPT in education; for example the need for cautious use and clear guidelines and the necessity of a new teaching philosophy and curricula to improve teachers' and students' competencies in using chatbots (Tlili et al., 2023). Research also highlights the need for designing responsible chatbots aligning with human values. In a study which was designed as a chat with ChatGPT to investigate concerns about the uses of chatbots in the academia, (Michael R. King, 2023) has extracted responses from ChatGPT structured along various guiding questions. The responses from ChapGPT provide important insights for educators such as caution for the rising concern of plagiarism in higher education, facilitated by easily accessible online information, and institutions' responses with stricter policies. Misuse of chatbots by students mentioned includes using ChatGPT to cheat on essays by generating content without conducting research or original writing, along with the ethical issues this poses. To prevent misuses and cheating, suggestions created by the chatbot are using varied assessment methods, like oral presentations and hands-on activities, and employing plagiarism detection tools. Other suggestions for ensuring accuracy and credibility in academic domain are provided by Alkaissi and McFarlane (2023). They acknowledge that while ChatGPT can produce credible scientific essays, the content it generates includes both accurate and fabricated information. To preserve scientific integrity, their recommendations include updating policies for evaluating manuscripts submitted to journals and medical conferences and additionally integrating AI output detection tools into the editorial process and requiring clear disclosure when these technologies are used.

The text highlights the potential impact of AI tools like ChatGPT on education. It is noted in the literature that ChatGPT can efficiently generate coherent, structured, and relatively accurate writing with minimal human effort (Zhai, 2022). Another study by Lund and Wang (2023) text explores the impact of ChatGPT on academia and libraries through a Q&A format. ChatGPT offers benefits like aiding literature reviews, generating text, data analysis, language translation, and automated summarization. However, ethical concerns include bias, data privacy, security risks, and the potential for misuse. In libraries, ChatGPT can enhance search systems, automate reference services, and assist with cataloging, but it also raises ethical issues around bias, privacy, and intellectual property.

The adoption of chatbots like ChatGPT into education is influenced by various key factors such as perceived usefulness, ease of use, social influence, training and support, perceived risks, and benefits according to research (Mukred et al., 2023). The study by Mukred et al. (2003) examines factors influencing the adoption of ChatGPT as a learning tool in education among academics and reports that participants found ChatGPT useful for tasks like research assistance, answering complex questions, and providing instant student performance feedback, noting its timesaving and efficiency-enhancing capabilities. Ease of use was

emphasized, with participants praising its intuitive interface, additionally sit was noted that social influence from peers positively impacted perceptions.

There are also several studies carried out in the Turkish education context, including the study by Livberber and Ayvaz (2023). Their study examined perceptions of chatbots from various angles and they have found the following: among academicians, there is a positive perception of ChatGPT which is seen as a potential technology that can support scientific research and education by generating human-like text and helps with literature review, language support, and teaching resources, saving time and improving efficiency. In terms of research ideas and quality academicians' approach ChatGPT as a tool that can inspire new research ideas and enhance research quality; however, they see its role as supportive, and state that human judgment remains essential. The third issue investigated in the study is ethical concerns. Researchers have found that there are concerns about plagiarism and potential misuse in academic assessments. Another concern which has arisen from the study findings is related to disinformation since academicians are skeptical about the accuracy and impartiality of ChatGPT's content, with risks of spreading misinformation or bias. The study highlights the opportunities offered by chat GPT in that it could analyze large datasets without human intervention but cautions about Potential over-reliance on AI, affecting critical thinking and productivity.

The suggestions given by research in order to mitigate the potential dangers of ChatGPT include rethinking teaching methods to foster problem-solving skills (Livberber & Ayvaz, 2023); encouraging responsible use of AI tools, transparency, and thoughtful consideration of these ethical implications in academic settings Mukred et al. (2003); shifting away from tasks easily performed by AI, such as essay writing, toward more complex evaluations in assessment an adjusting educational practices to prepare students for future challenges (Lund & Wang, 2023); designing learning goals, focusing less on general writing skills and more on critical thinking, creativity, and the effective use of AI tools (Zhai, 2022).

Fedoriv et al. (2024) provide guidance to educators in academic institutions in their struggle to balance ethics and use of AI tools by students. Their suggestions include adjusting institutional policies to emphasize academic integrity and ethical standards; viewing AI tools as supplements to human creativity an critical thinking to endure originality of academic work; creating a culture of academic integrity by educating writers on ethical writing and proper citation practices and implementing advanced digital tools for plagiarism detection to uphold academic integrity and by establishing clear academic integrity policies to set expectations for ethical practices; fostering critical thinking by assigning writing tasks that require personal perspectives and analytical skills; distinguishing text types i.e. human texts typically exhibit unique voices and creative patterns, while AI outputs often lack cohesion and contextual awareness; and lastly by employing continuous evaluation by encouraging ongoing discussions among educators, researchers, and policymakers to promote responsible AI use in academic writing.

The main purpose of this study is to evaluate the extent to which university students in the field of social sciences, specifically in language related departments use artificial intelligence-supported tools for academic writing, to examine their attitudes towards these tools, and to add to the discussion on how academic writing teachers can support the development of special writing skills while maintaining academic honesty. By understanding these factors, it aims to provide educators with best practices on the pedagogically balanced and ethical incorporation of AI tools into academic writing teaching.

2. METHODS

The study uses a qualitative method to collect data on the use of AI tools by undergraduate and graduate students studying at language related departments in Turkish Universities. Firstly, an AI based enquiry was conducted to provide an overview of existing AI tools that aid academic research and writing under five principal areas: grammar and syntax checking, plagiarism checking, reference and citation management, research assistance and translation. Secondly, a comprehensive online survey was administered in order to find out the preferences and experiences of students in using AI powered tools for academic research and writing

purposes. The survey consisted of four main parts: demographic information about participants, information about participants' use of AI for academic purposes, information about participants' use of AI for academic writing purposes and open ended responses reflecting participants' thoughts about AI.

2.1. Participants

The survey was conducted online and a total of 72 students (22 male, 50 female) participated in the survey. Figure 1 shows the gender distribution of the participants.
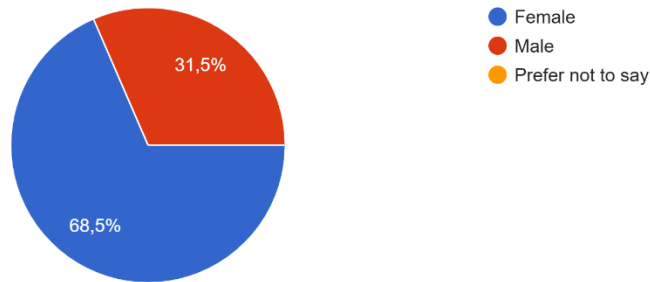

Figure 1. Gender Distribution of the Participants

The participants' age distribution is provided in Figure 2 below.
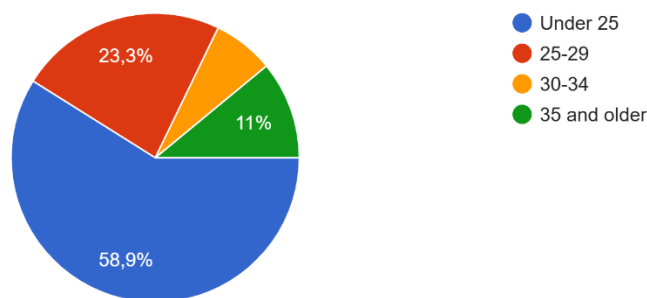

Figure 2. Age Distribution of the Participants

The participants were also asked about their current level of education and their responses are summarized in Figure 3.
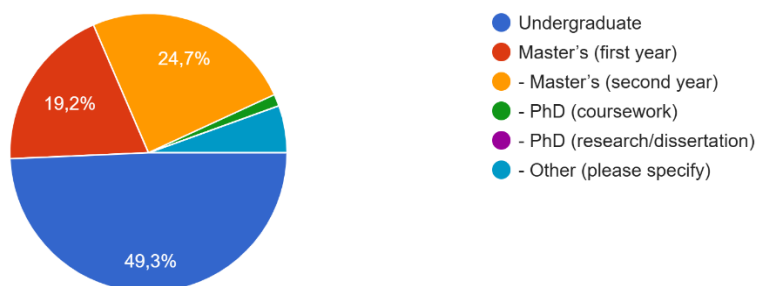

Figure 3. Education Level of Participants

The participants came from different language related departments such as English Translation and Interpreting (%24,48), French Translation and Interpreting (%2), English Language Teaching (23,04) and English Linguistics (%2,88).
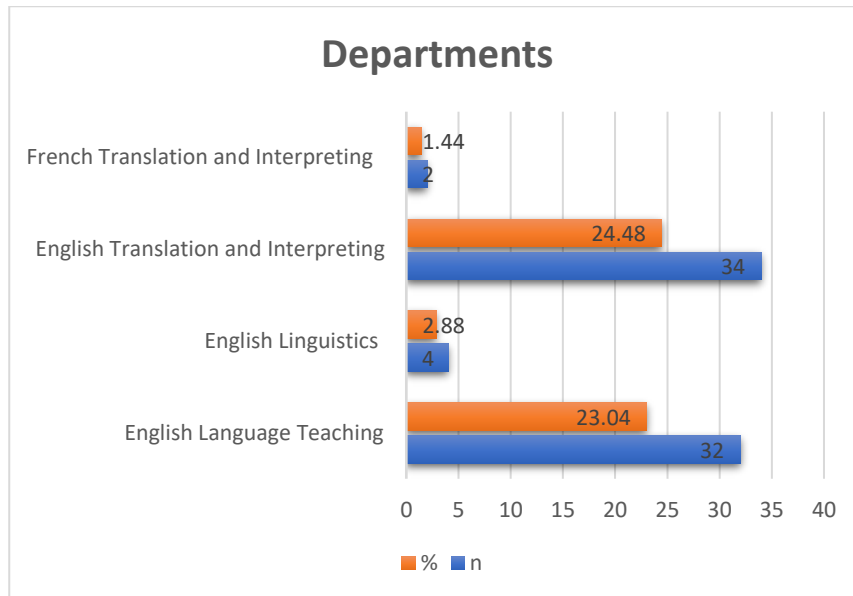

Figure 4. Departments of Participants

3. RESULTS AND DISCUSSION

3.1. An Overview of AI tools for Academic Purposes

The use of AI tools in the academic field has become very varied and there are many functions they offer to researchers as well as university students. With the existing variety of AI tools, it has become necessary for educators to survey these tools and guide their students how to use them effectively and ethically. Since it is not possible to keep up with the pace of the developments in the AI field, it would be a sounder approach to focus on the functions that AI can be used rather than individual tools that can be used. An overview of existing tools reveals more than 10 different areas where academic writers can use various AI tools.

In academic writing and academic research AI tools can be used for the following main functions:

1. Grammar and Syntax Checking
2. Plagiarism Detection
3. Reference and Citation Management
4. Content Generation and Brainstorming
5. Style and Tone Adjustment
6. Clarity and Conciseness Suggestions
7. Content Structuring and Outlining
8. Vocabulary Enhancement
9. Thesis Statement and Argument Strengthening
10. Peer Review Simulation
11. Automated Summarization
12. Targeted feedback on Writing Quality
13. Translation and Language Support
14. Research Assistance
15. Sentence Rephrasing and Paraphrasing

In the scope of the study, the AI tool Chat GPT was asked to list 10 most recommended tools for various types of support for academic writing that AI can provide: grammar and syntax checking, plagiarism checking, reference and citation management, research assistance and translation. Below Table 1 provides the 10 most recommended AI tools for grammar and syntax checking.

Table 1. 10 AI tools for grammar and syntax checking recommended by Chat GPT

Tool	Description
Grammarly	Grammarly has been designed to improve the overall quality of writing, making it clearer, engaging, and error-free
Linguix	Linguix is a grammar and syntax checking tool for students, professionals, and even non-native English speakers looking to polish their writing.
ProWritingAid	ProWritingAid has been specifically designed for writers who need deep, comprehensive analysis, ranging from novelists to bloggers and students.
Hemingway	Hemingway has been named after the writer Ernest Hemingway and it is a grammar checker that takes after his philosophy towards writing. It is aimed at removing redundant adjectives and descriptors, preferring to write plainly instead.
Slick Write	Slick Write has been designed as a personal writing coach. In addition to pointing out errors; it also dives into writing style, offering insights on how to make a text more engaging and effective.
Scribens	Scribens might not be the first name that pops up when you think about grammar checking tools, but it's definitely one you should consider. Designed to correct over 250 types of grammar and spelling errors, Scribens is a tool that caters to a variety of writing needs.
GrammarCheck	GrammarCheck has been designed for quick checks, offering basic grammar, spelling, and punctuation corrections. Its simplicity and ease of use make it appealing for users who need fast, basic proofreading.
Sapling	Sapling is an AI-powered writing assistant focused on business and professional communication. It offers grammar and spell checks, alongside more advanced features like autocomplete and phrase suggestions, tailored for professional and team environments.
Ginger	Ginger is a comprehensive writing tool that offers grammar checking, sentence rephrasing, and translation features. It's a favorite for its comprehensive grammar and spell check capabilities, making it a reliable choice for writers and professionals aiming for precision in their communication.
Trinka.ai	Trinka is specially designed for academic writing, ensuring grammar correction aligns with academic standards. Trinka is an AI-powered writing assistant specifically designed for academic and technical writing.

The second prompt given to ChatGPT was aimed at extracting the 10 most recommended AI powered plagiarism tools. And this prompt revealed the tools listed in Table 2 below.

Table 2. 10 AI tools for plagiarism checking recommended by Chat GPT

Tool	Description
Turnitin	Turnitin is a plagiarism program widely used by academic institutions and it checks for originality against a massive database of academic papers, articles, and other online content.
Grammarly Premium (with Plagiarism Checker	Grammarly offers a plagiarism checker that compares text against web pages and academic papers in addition to its grammar and writing enhancements,
iThenticate	Developed by the same company behind Turnitin, iThenticate is geared towards researchers and publishers. It's often used for checking research papers and manuscripts before submission
Quetext	Quetext is an easy-to-use plagiarism checker that provides a deep search across web pages, academic content, and books
Copyscape	Popular for both academic and web content, Copyscape provides a thorough comparison against web pages and other online content. It's commonly used by academic writers to ensure the originality of their work.
Unicheck	A cloud-based plagiarism checker, Unicheck is designed for both students and educators. It offers real-time plagiarism detection and supports integrations with LMS platforms.
Plagscan	Plagscan is known for its comprehensive plagiarism detection for academic and professional use. It allows for comparison with both online and offline sources
Scribbr Plagiarism Checker	Scribbr uses the Turnitin algorithm but is designed for students and individuals, making it accessible for personal academic use. It checks against scholarly databases and the web.
Plagramme	Plagramme offers a detailed plagiarism check, highlighting similarities and providing a score based on the level of similarity.
Small SEO Tools – Plagiarism Checker	While originally designed for webmasters and bloggers, this tool is also useful for students and researchers due to its simple interface and the ability to check for free.

In addition to grammar and syntax checking tools and AI powered plagiarism tools, ChatGPT was prompted to suggest the 10 most recommended AI powered reference and citation management tools. And this prompt revealed the tools listed in Table 3 below.

Table 3. 10 AI tools for reference and citation management recommended by ChatGPT

Tool	Description
Zotero	Zotero is a popular, open-source reference management tool that helps you collect, organize, and cite research sources. With its AI-powered features, it can automatically extract citation information from web pages, PDFs, and academic databases.
Mendeley	Mendeley is a reference manager and academic social network that helps researchers manage references and discover relevant research. Its AI-powered features include automatic paper suggestions and citation management across devices.
EndNote	EndNote is a powerful reference management tool that uses AI to help with citation management and research organization. It offers automated citation formatting and references generation across a wide range of styles.
RefWorks	RefWorks is a cloud-based reference management tool designed for academic writing. Its AI-powered features assist with managing references, generating citations, and collaborating on research projects.
Paperpile	Paperpile is a Google Docs-integrated reference manager that offers AI-driven citation management, allowing users to search for references, format citations, and create bibliographies directly within Google Docs.
Citedrive	CiteDrive is an AI-powered reference management tool tailored for collaborative academic work. It automates citation formatting and offers features like real-time team collaboration and compatibility with LaTeX and Word.
Citavi	Citavi combines reference management with task management, using AI to help streamline research and writing. It's ideal for complex projects where organizing sources and managing ideas is crucial.
BibGuru	BibGuru offers an AI-powered citation generator that's designed for students and researchers looking for quick, accurate citations. It supports a variety of citation styles and integrates with research databases.
Sciwheel	Sciwheel is a cloud-based reference manager that helps researchers store, organize, and cite references. Its AI features include smart tagging and automated citation management in documents.
CiteThisForMe	CiteThisForMe is a simple, AI-powered citation generator that helps users create citations and bibliographies in a wide range of formats. It's particularly useful for quick citations while writing papers.

Another category of tools investigated was AI powered research assistants. ChatGPT listed ten most recommended research assistants as shown in Table 4.

Table 4. 10 AI tools for research assistance recommended by Chap GPT

Tool	Description
Research Rabbit	Research Rabbit is an AI-powered research discovery tool that helps users find, track, and visualize relevant academic papers. It works similarly to Spotify for research, suggesting relevant papers and authors based on your reading habits.
Iris.ai	Iris.ai is an AI-powered research assistant that helps you find relevant academic papers based on a given research problem or query. It uses machine learning to map out the most relevant documents and provides reading recommendations.
SciSpace (formerly Typeset.io)	SciSpace is an AI research assistant that offers a suite of tools to help researchers discover, write, and publish their work. The platform uses AI to summarize papers, find relevant citations, and check for compliance with journal guidelines.
Elicit	Elicit is an AI research assistant designed to assist with literature reviews. It can answer research questions using a combination of AI and academic sources, ranking the most relevant papers and summarizing their key points.
Connected Papers	Connected Papers is an AI-powered tool that helps researchers find and explore papers in a visual graph. It's designed for discovering papers related to a key topic or document, making it easier to map out research areas.
Aylien	Aylien is an AI-powered tool that can analyze large datasets of documents, extracting insights and helping with text analysis and summarization. It's especially useful for content-heavy research, news monitoring, or competitive intelligence.
Semantic Scholar	Semantic Scholar is an AI-driven research tool that helps researchers discover relevant papers, extract key points, and even tracks citation impact over time. Its AI features focus on identifying highly influential papers and summarizing key findings.
Scite.ai	Scite.ai is a smart citation assistant that not only finds citations for academic papers but also shows how papers have been cited (supporting, contrasting, or neutral). It uses AI to provide context for each citation.
Researcher App	Researcher is an AI-powered app that allows users to follow academic journals, discover new papers, and stay updated with the latest research in their field. It's highly customizable for specific research interests.
Zotero + ZoteroBib	Zotero combined with ZoteroBib offers an AI-enhanced experience for managing, organizing, and discovering research sources. ZoteroBib is a citation generator powered by AI, while Zotero uses AI to automatically detect and extract citation information from websites and PDFs.

Lastly, ChatGBT was asked to list 10 most recommended AI tools for translation. This last inquiry resulted in the list of tools provided in Table 5.

Table 5. 10 AI tools for translation recommended by Chat GPT

Tool	Description
DeepL Translator	DeepL is one of the most advanced AI-powered translation tools available, known for its high-quality translations, especially for complex sentences. It supports multiple languages and is frequently used by professionals.
Google Translate	Google Translate is one of the most widely used AI-powered translation tools, offering translations in over 100 languages. Its AI continuously improves accuracy through machine learning and crowdsourced data.
Microsoft Translator	Microsoft Translator is a versatile translation tool that works across multiple devices and platforms. It's equipped with neural machine translation (NMT) and offers both text and speech translation.
Amazon Translate	Amazon Translate is an AI-powered service that provides high-quality translations for texts and websites. It's part of Amazon Web Services (AWS) and is designed for businesses needing scalable and secure translation solutions.
iTranslate	iTranslate is a popular translation app that offers text, voice, and website translation across 100+ languages. Its AI algorithms help provide quick and context-aware translations.
Smartling	Smartling is a translation management platform that uses AI and machine learning to provide translations for businesses. It's geared toward enterprises with large-scale localization needs.
Systran	Systran offers AI-based translations with a focus on professional and specialized content, such as legal, medical, and technical documents. It's well-suited for industries with specific terminology needs.
Mate Translate	Mate Translate is an AI-powered translation tool available as a browser extension or standalone app. It provides quick translations and supports multiple formats, including text, voice, and image translation.
Lingvanex	Lingvanex is an AI-powered translation platform that supports text, voice, and image translations. It offers a range of tools, including browser extensions and APIs for business use.

3.2 Survey Results

The first part of the survey was aimed at collecting information about how the participants used AI in academic work. The participants were asked about how familiar they are with artificial intelligence and their responses indicate that their familiarity with AI tools is high since they responded either as "very familiar" (%48,6) or "somewhat familiar" (%47,2) with only a small percentage who responded as "not very familiar" (%3). The responses are summarized in Figure 5 below.
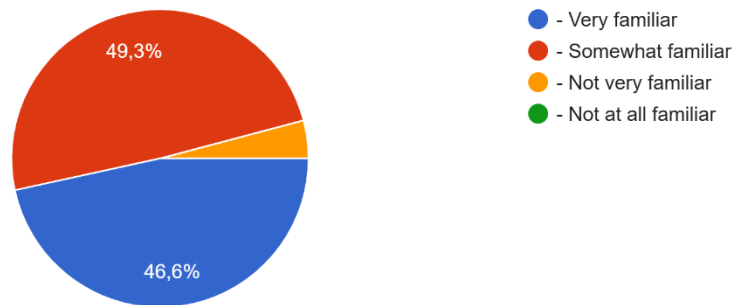
- Very familiar
- Somewhat familiar
- Not very familiar
- Not at all familiar

Figure 5. Participants' Familiarity with AI

There is a wide variety of AI powered tools as reviewed in the first part of the results section; however, it is also important to know which ones are preferred or known by our students and which ones are not preferred or known. For this purpose, students were asked about the AI tools they used in their academic work. According to the responses of the participants, the three most well-known and used tools are ChatGPT (%83,3), Grammarly (%72,2) and Quillbot (%30,6).
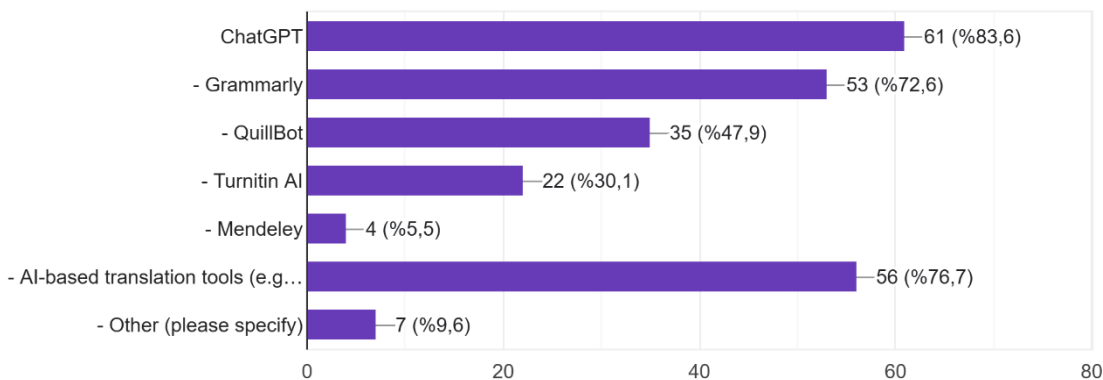
Figure 6. AI tools used by Participants

The participants were also asked about the purposes for which they use AI tools and according to the responses the three most popular purposes are writing assistance (%81,9), brainstorming ideas (%75), and research (72,2). These are followed by language translation (%), translating documents (%38,9), citation management (%26,4), and data analysis (%22,2) respectively as shown in Figure 7.
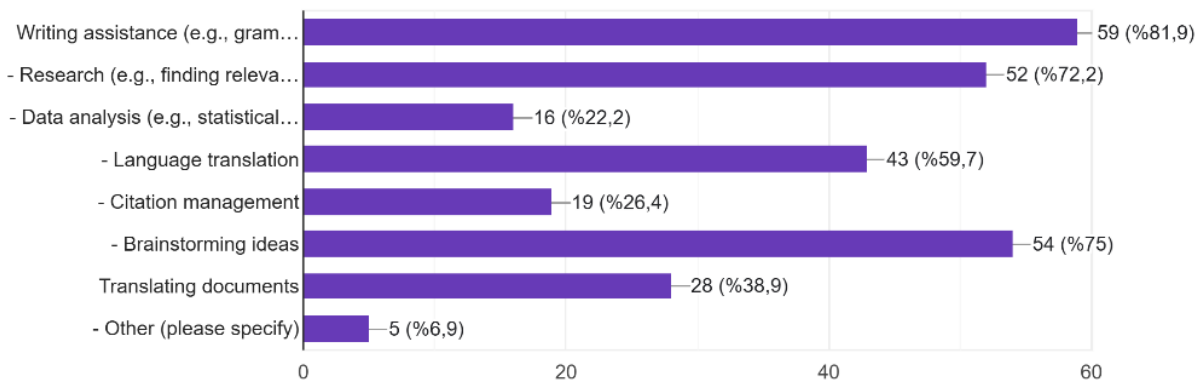
Figure 7. Participants' Purposes for using AI

The next question in the survey enquired about the frequency with which the participants used AI tools in their academic work. The responses revealed that the participants used AI with different levels of frequency with nearly half of the participants using AI weekly (%48,6) followed by daily use (%20,8) and monthly use (16,7%) and a small percentage using it rarely (%13,9) as illustrated in the pie chart in Figure 8.
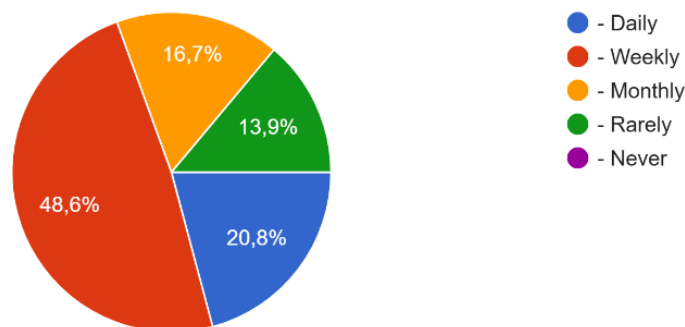

Figure 8. Frequency of AI use by Participants

The pie chart shows respondents' opinions on the effectiveness of AI tools in improving their academic work, with data collected from 72 participants. The largest portion, 66.7%, found AI tools to be "Somewhat helpful," suggesting a majority believe these tools offer noticeable, though not transformative, support. Meanwhile, 25% of respondents rated AI tools as "Extremely helpful," indicating that a quarter of the participants experience significant benefits. Only 8.3% responded neutrally, and no participants selected the options "Not very helpful" or "Not helpful at all." This distribution suggests that AI tools are generally well-regarded in an academic setting, with most users finding them beneficial to varying extents.

The participants were also asked about how helpful they think AI tools have been in improving their academic work. The responses show that a majority of the participants think that AI tools have been somewhat helpful with a percentage of %66,7 while a %25 of the participants think that it has been extremely helpful and only %8,3 have chosen the option of neutral. There are no respondents who do not think AI has been helpful as illustrated in Figure 9.
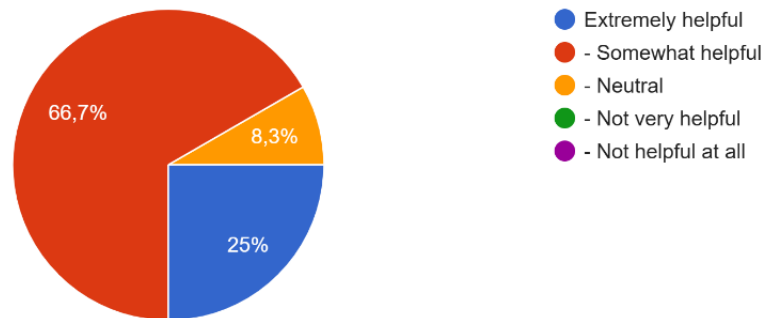
Figure 9. Participants' Perception of Helpfulness of AI tools for Improving Academic Work

The bar chart in Figure 10 below illustrates various concerns that participants have about using AI in their academic work, with responses from 72 individuals. The primary concern, cited by 70.8% of respondents, is a "Lack of accuracy," suggesting that users worry about the reliability and precision of AI-generated content. This is followed by "Ethical concerns" (e.g., plagiarism), with 59.7% of respondents expressing apprehension, indicating significant concern over potential academic integrity issues.

A similar proportion (58.3%) reported concerns about "Dependence on AI tools," reflecting anxieties around over-reliance on AI, potentially undermining independent critical thinking and research skills. "Data privacy/security" is also a concern for 47.2% of participants, pointing to worries about the handling and protection of personal and academic data.

A small fraction of respondents (5.6%) indicated no concerns, and very few (1.4%) selected "Other" or an unspecified option. Overall, these results reveal that while AI tools are viewed as helpful, there are notable concerns regarding their accuracy, ethical implications, potential for dependency, and data privacy.
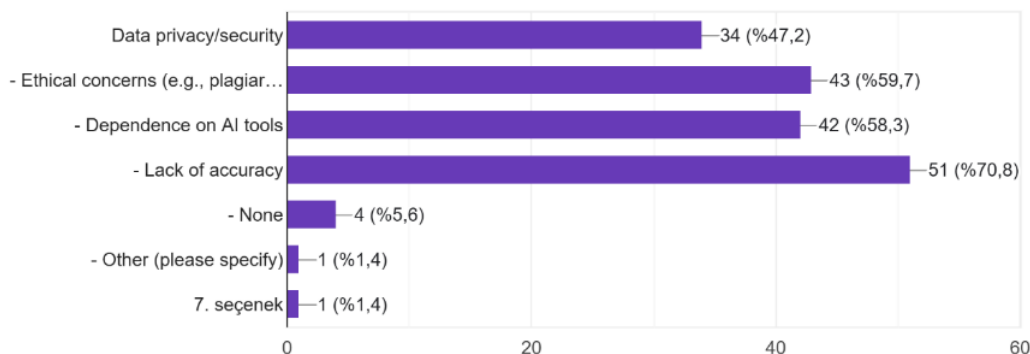

Figure 10. Participants' Concerns with using AI in their Academic Work

The participants were asked whether AI tools have influenced their approach to academic tasks and based on responses from 72 participants, half of the respondents (50%) indicated that AI tools have "Somewhat" changed their approach, suggesting a moderate impact on how they engage with academic work.

Another 27.8% reported that AI tools have not substantially altered their approach ("No, it hasn't changed much"), indicating a segment of users who see little difference in their methods despite access to AI. A smaller portion, 22.2%, felt that AI has "Significantly" changed their academic approach, implying a profound influence on their workflow or strategy.

Notably, no respondents selected the option "Not at all," indicating that all participants experienced at least some degree of impact from AI tools. This distribution suggests that while AI is shaping academic approaches, the extent of change varies widely among users.

When asked about the benefits of using AI in their academic work nearly half of the respondents %45,8 indicated that AI is time saving. Another %31,9 reported that it allowed them easy access to resources. A smaller portion, 12,5 thought that it improved the quality of their work and enhanced their creativity %8,3 as shown in Figure 10. This distribution suggests that the respondents think that AI benefits them in various ways, the most important one being that it is time saving.
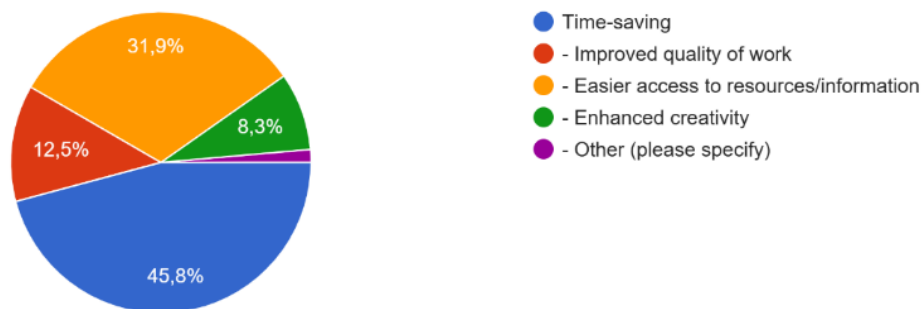

Figure 11. Benefits of AI for Academic Work

In addition to the use of AI in academic work, participants were also asked questions about the uses of AI in academic writing. The following section summarizes their responses relating the use of AI in academic writing specifically. The first question in this section was concerned with the participants' awareness of the use of AI tools for academic writing purposes: The responses indicated a high awareness among the participants with 88,9% reporting that they are aware. When asked whether they have used AI tools to assist with their academic writing, a majority of the participants (73,6%) reported that they have used AI to assist with their academic writing. (see Figure 12 below)
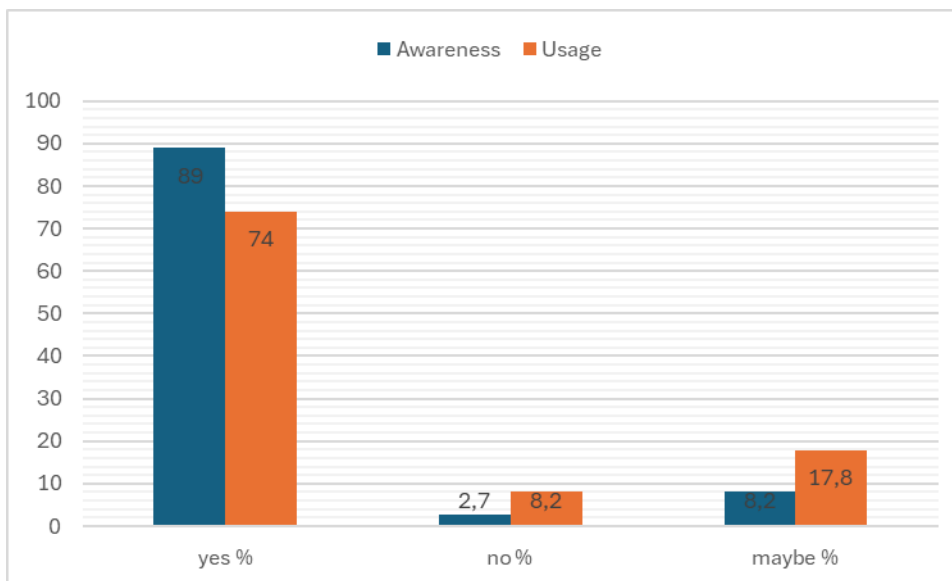

Figure 12. Awareness of AI in Academic Writing and Usage

The frequency of using AI for academic writing among the participants ranged from "Always" to "Sometimes" (41,7%) or "Often" (29,2%) showing a moderate frequency with only a minority reporting that they rarely (16,7%) use AI for academic writing as shown in Figure 12 below.
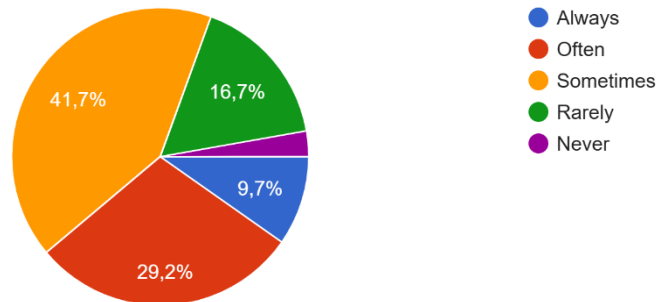

Figure 13. Frequency of Use of AI Tools for Academic Writing

In order to get an idea about which AI tools are used for academic writing purposes, participants were also enquired about this issue. Their responses indicate that the three most favored AI tools are Grammarly (%70,8), ChatGPT (%66,7)) and QuillBot (%44,4). Only a small proportion of participants reported Hemingway Editor (%4,2) or other tools (%11,1). The distribution of responses are shown in Figure 13.
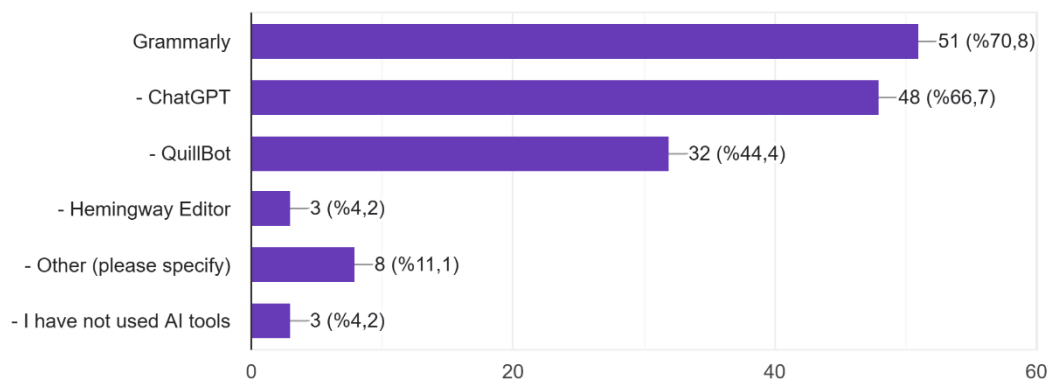

Figure 14. AI Tools Used to Support Academic Writing

Regarding the tasks for which AI is used in academic writing, the responses show that the three most frequently used functions of AI are "grammar and spelling corrections" (83,3%), "enhancing vocabulary or word choice" (68,1%) and "improving sentence structure" (58,3). Other preferred tasks are "paraphrasing and rewording" (48,6%), "summarizing texts or articles" (41,7%) and "generating ideas or outlines" (33,3%) as shown in Figure 15.
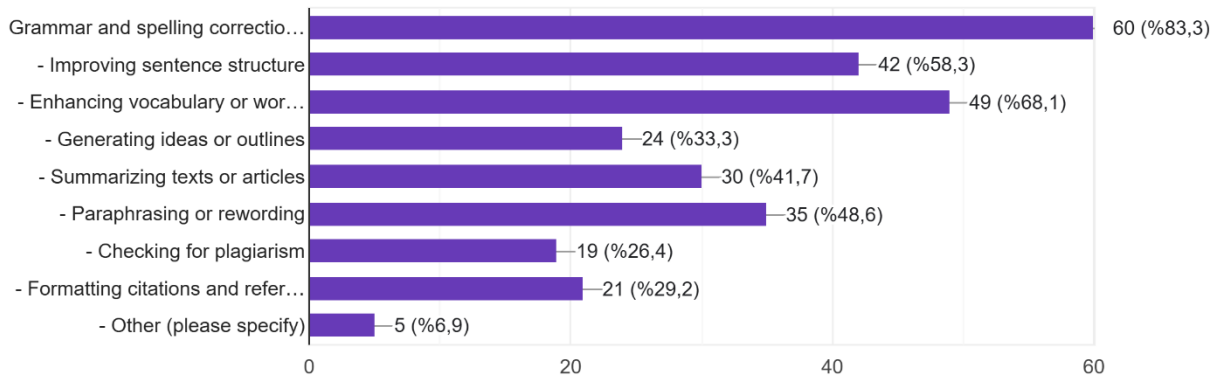
Figure 16. Tasks for which AI tools are used in Academic Writing

The participants were also asked about how they incorporate the output from AI into their academic texts. According to the responses, after seeking for help from AI, a majority of the participants 51,4% use the output as inspiration but rewrite in their own words, and a moderate proportion of participants 37,5% review and modify suggestions before accepting them while only a small percentage of participants 2,7% accept AI generated suggestions as they are.

It is of importance to know whether participants have any concerns while using AI for academic writing, and the related survey question generated the following responses. The most frequently reported concerns are
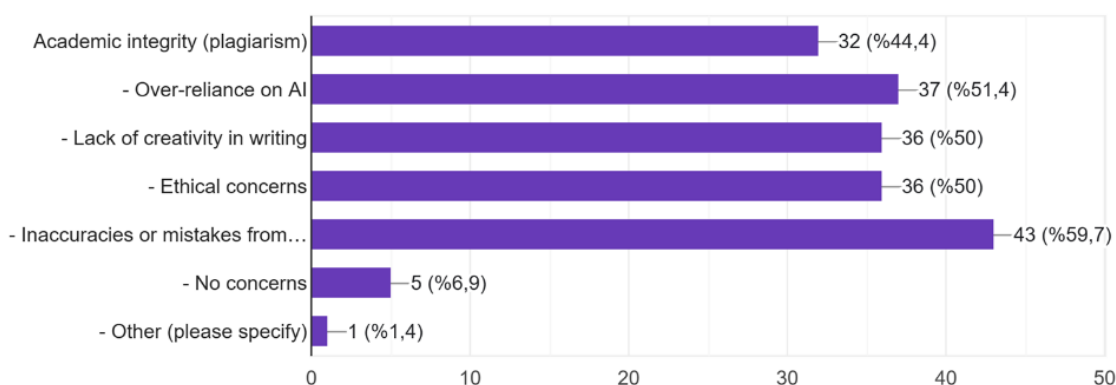

Figure 17. Concerns with Using AI in Academic Writing

"inaccuracies or mistakes from AI" (59,7%), followed by overreliance on AI (51,4%). The concerns of "lack of creativity in writing" and "ethical concerns" have received the same percentage of responses (50%) and "academic integrity" is also another concern which has received a moderate percentage of responses (44,4%). That participants accept these points a concerns is an indication of participants' cautious approach to AI and shows that they do not want to be over reliant on AI in time which is a positive finding. These results are illustrated in Figure 17. In the last part of the questionnaire, the participants were asked to respond to three 5-point Likert scale questions concerning ther beliefs about AI use in academic writing. Table 6 summarize the responses of the

students. According to the reponses, it was observed that for the first item "**Enhancing Writing Skills with AI Tools"**: Most respondents were neutral (28) or agreed (25) that using AI tools enhances their writing skills over time. The mean score of **3.39** suggests a moderately positive perception. In terms of the second item which was about "R**eplacing Human Feedback with AI Tools**" a significant number of respondents disagreed (17) or were neutral (26) about the idea that AI tools can replace human feedback in academic writing. The mean score of **2.81** reflects skepticism or moderate disagreement. For the last item, "C**oncerns About Over-Reliance on AI Tools**", responses were distributed more evenly across the scale, with a slight leaning toward concern (16 neutral, 15 agree, 16 strongly agree). The mean score of **3.18** indicates moderate concern about over-reliance on AI tools. This data shows general acceptance of AI tools as helpful but reservations about their replacing human feedback and potential over-reliance.

Table 6. Beliefs about AI use in Academic Writing

	SD	D	N	A	SA	Mean
Do you believe that using AI tools enhances your writing skills over time?	2	9	28	25	8	3,388889
Do you feel that AI tools can academic writing replace human feedback (e.g., from professors, peers) in improving?	10	17	26	15	4	2,805556
Do you worry about becoming over-reliant on AI tools for your academic writing?	9	16	16	15	16	3,180556

Lastly, the participants were asked to additional comments if they had any about AI use in academic writing. Their responses were categorized according to the emerging themes and 6 themes were extracted. The emerging themes and some sample responses were as follows:

1. Positive Experiences with AI Tools.
    - AI is time-saving and efficient.
    - It helps with grammar and spelling correction.
    - Useful for summarization, creating structured outlines, and organizing ideas.
    - Helps in preparing materials such as worksheets and lesson plans.
2. Cautious Optimism.
    - AI is helpful but should be used mindfully to avoid over-reliance.
    - It should serve as an assistive tool, not a replacement for human effort.
    - Must balance AI use with originality and critical thinking.
    - Awareness of potential errors or biases in AI output.
3. Concerns and Criticism.
    - AI tools can hinder creativity and skill development.
    - Overdependence could lead to ethical issues, such as plagiarism.
    - AI-generated outputs may lack depth or originality.
4. Ethical and Educational Implications.
    - Need for clearer standards and guidelines to prevent misuse.
    - Importance of maintaining academic integrity and avoiding laziness.
5. Negative experiences and Rejection.
    - Perception of AI as inferior or inefficient.
    - Distrust of AI-generated content (e.g., fabricated articles).
    - Refusal to use AI due to personal or philosophical reasons.
6. No Opinion or General Comments

- Responses like "No comment," "NA," or simple gratitude ("Thank you").
- Some expressed a lack of experience or no additional thoughts.

The pie Chart in Figure 18 shows the distribution of responses under these categories. The distribution of responses indicates that although the participants have positive experiences (24%) with AI, they do not accept it without questioning and that they have some reservations which emerges as a theme that can be named as cautious optimism (20%). Only a very small portion of participants state negative experiences with AI or rejection (10%). Overall, these responses can be interpreted as positive since they show that the participants have a conscious and cautious approach to AI. They are aware of both its benefits and drawbacks. This presents us educators with an opportunity to guide our students in using AI in a productive and ethical manner. Also, it presents a caution in that we should not leave our students without guidance when using AI and that we should provide them with clear boundaries for ethical use and training on how to use AI efficiently.
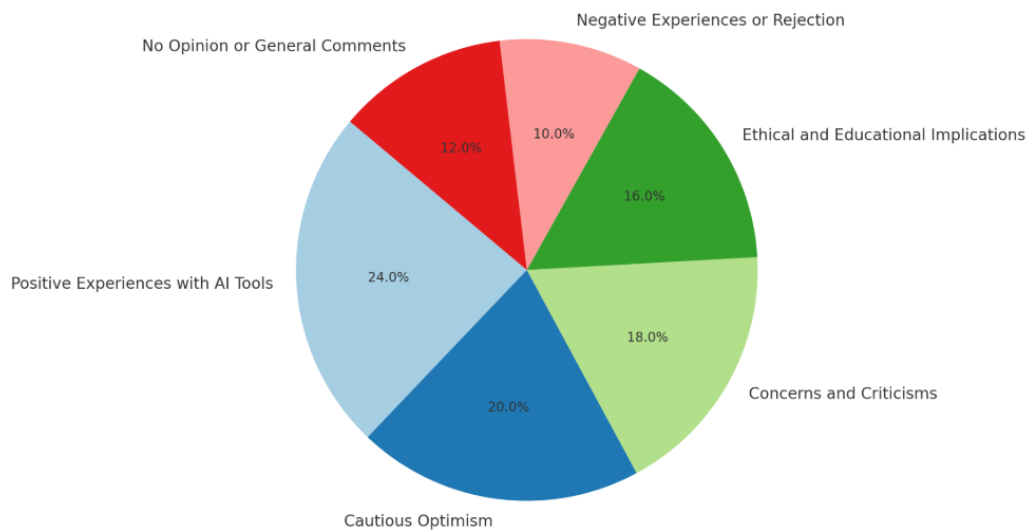

Figure 18. The Distribution of Open-ended Responses

4. CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to gain an insight into the use of AI tools in academic contexts by university students and also to examine their perceptions towards these tools. Theo extensive use of AI tools for various purposes in academic contexts such as grammar and syntax checking, plagiarism detection, reference management, research assistance, and Translation has brought about various concerns. The study aimed at shedding light on the ways in which AI tools are utilized for various purposes by University students through a detailed survey. Survey results indicate high familiarity with AI among participants, with popular tools like ChatGPT, Grammarly, and Quillbot frequently utilized. In terms of use it has been observed that AI tools are predominantly applied to support writing, brainstorming, and research, with a significant number of participants finding them timesaving and resource-accessible.

When it comes to the perceptions and approaches towards AI by participants, the survey responses indicate that despite their perceived utility, participants expressed concerns about AI's accuracy, ethical implications, and the potential for over-reliance. Thus, the participants seem to emphasize the need for a balanced approach. Most users incorporate AI outputs as inspiration or suggestions, reflecting a cautious but proactive use. The study also reveals skepticism about replacing human feedback with AI tools, reinforcing their role as complementary rather than substitutive.

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The findings of the study call attention to the necessity for educators to guide students in using AI ethically and effectively while promoting originality and critical thinking. It is recommended that clear guidelines and training on ethical AI use is provide to ensure productive integration of AI into academic practices, benefiting both students and educators. This cautious optimism suggests a promising future for AI in academia, provided its use is appropriately moderated and well-informed.

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