EXAMINING THE DETERMINANTS AND PERCEPTIONS OF UNDERGRADUATE STUDENTS IN THE USE OF ARTIFICIAL INTELLIGENCE (AI) CHATBOT

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BY

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A final-year project submitted in partial fulfillment of the requirement for the degree of

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DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
(3) Equal contribution has been made by each group member in completing the FYP.
(4) The word count of this research report is 10495.

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LIST OF ABBREVIATIONS

CAGR	Compound Annual Growth Rate
MOE	Ministry of Education Malaysia
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behavior
SPSS	Statistical Package for Social Sciences

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PREFACE

We must complete our final year project to graduate from our bachelor's degree program, the Bachelor of Business Administration (Hons). Our study topic is "Examining the Determinants and Perceptions of the Undergraduate Students In the Use of Artificial Intelligence (AI) Chatbot.". The primary impetus for our research is the lack of perceived communication quality, perceived privacy risk, and trustworthiness among undergraduate students in the artificial intelligence (AI) chatbot.

The rapid evolution of artificial intelligence (AI) has reshaped industries and significantly impacted daily life, sparking curiosity among researchers and professionals alike. AI-powered chatbots have emerged as key critical tools in every aspect of our lives, most notably our education sector. Even with the apparent benefits of the current technology, people's desire to interact with AI is still uneven, particularly regarding undergraduate students' behavioural intentions toward using AI chatbots as they engage with digital platforms more.

In this research project, we aimed to investigate these critical factors using a statistical approach. Our goal was to provide insights that could assist academic institutions and developers in creating a safer and more user-friendly AI chatbot systems by shedding light on behavioural goals and broadening our understanding of AI adoption in educational environments. We anticipate that the findings of this study will open the door to other investigations and technological advancements aimed at improving education for students in the digital era.

ABSTRACT

This study examines undergraduate students' behavioural intention to use AI chatbots, with a special focus on three critical aspects: trustworthiness, considered privacy risk, and perceived communication quality. Understanding the elements that affect students' acceptance of AI chatbots is essential as these technologies proliferate in educational settings. Based on the Technology Acceptance Model (TAM), expands on it by analysing the effects of perceived communication quality, perceived privacy risk, and trustworthiness on students' propensity to use AI chatbots. A well-organised Google Form questionnaire was used to collect data from 400 undergraduate students as part of a quantitative study strategy. The study analysed the data and tested the research hypotheses using descriptive, reliable, and inferential statistical analyses carried out using SPSS. The results show that behavioural intention significantly correlates with perceived privacy risk and trustworthiness, but not with perceived communication quality, which does not show a statistically significant correlation. As the survey shows, consumers' inclination to interact with AI technology mostly depends on trustworthiness, but privacy concerns continue to remain a significant obstacle to chatbot adoption. These discoveries have ramifications for the technology industry as well as for education. Theoretically, the study advances the TAM paradigm in research on AI adoption by offering a deeper comprehension of the variables affecting students' behavioural intention of AI technologies. The study guides how educators and developers might create AI chatbots that more effectively address privacy concerns and foster confidence to boost adoption. In conclusion, the study recognises its limitations, including the utilisation of closed-ended enquiries, and offers suggestions for future research aimed at delving further into these traits.

CHAPTER 1: INTRODUCTION

1.0 Introduction

Chapter 1 presents and clarifies the topic. This section goes over the reasons behind the start of the investigation, the variables, the causal connection between these variables and the main issue that the researchers are interested in. Firstly, researchers will focus on the research background of the usage of Artificial Intelligence and the variables impacting the behavioural intention of undergraduate students. Subsequently, this study highlights the issue description, research questions, and study goals. In addition, the chapter structure and summary will be provided, along with an outline of the hypotheses.

1.1 Research Background

Artificial Intelligence innovations and developments have been having a broad impact on many aspects of our lives. Defining Artificial Intelligence (AI) can be challenging even for experts in the field, and this difficulty arises from two primary reasons. Firstly, the nature of AI is constantly evolving. As mentioned by Nick Bostrom, advanced AI technologies have been integrated into widespread applications and no longer carry the explicit label of “AI”. Additionally, AI constitutes an interdisciplinary field, drawing expertise from diverse areas such as neuroscience, psychology, and linguistics. Experts from these various disciplines contribute to AI with their unique perspectives, knowledge, and terminology, further complicating the precise definition task (Chen et al., 2020).

Due to the arrival of Industry 4.0, various sectors started actively promoting advanced technologies in their industrial plans and operations. Within Industry 4.0, a confluence of state-of-the-art technologies, including cloud computing, big data, IoT, and artificial intelligence (AI), is transforming the landscape across multiple industries (Elahi et al., 2023). Besides, over the past few years, artificial intelligence (AI) has transitioned from being a developing technology to a widely embraced tool in various industries and sectors (Boustani, 2021), such as transportation, entertainment, engineering, finance, healthcare, pharmaceutical, communications, and education (Chang, 2020).

However, there needs to be more focus on AI training in contemporary economic literature, and there is also limited research on the social impacts of digital advancements in higher education markets, particularly among students, academics, and teachers (Bogoviz et al., 2019). According to Technavio (2023), it is stated that the size of the Artificial Intelligence (AI) Market in the Education Sector is predicted to keep growing at a CAGR of 41.4% from the year 2022 to 2027, with an increasing amount by USD 1,100.07 million. Figure 1.1 below shows the market size outlook, including historic market data from 2017 to 2021.

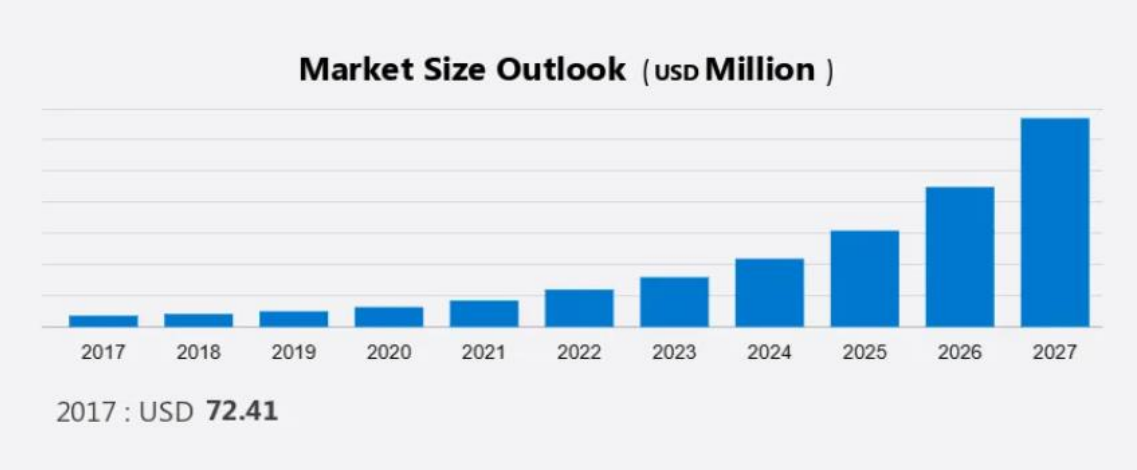

Figure 1.1: The Prediction of Artificial Intelligence (AI) Market Size Outlook (in USD million) from 2017 to 2027. Adopted from Technavio (2023).

1.2 Problem Statement

1.2.1 Ideal Situation

Artificial intelligence in the education industry can be a valuable aid for students in their education journey. AI-powered chatbots could deliver extensive feedback on learner assignments, identifying spots for improvement and offering ideas for future learning (Labadze et al., 2023). In the field of education, ChatGPT, one of the AI-powered chatbots and related AI applications, can be used as a self-study tool, helping students discover information, providing personalised support, facilitating group discussions, and instantly solving problems (Stöhr et al., 2024). These things can enhance students' learning experiences and possibly improve academic performance.

1.2.2 The Reality

1.2.2.1 General Issues

AI technology development requires good communication. Clear communication reduces misunderstandings and disputes. Thus, AI training must be carefully monitored to guarantee proper reaction. Poor training may lead to AI using racist, sexist, or abusive words. Microsoft's Twitter chatbot Tay responded to user

interactions. After seeing insulting tweets, Tay started using the same language in its answers, causing AI communication difficulties (Codecademy Team, 2023).

End users are concerned about privacy since AI technology is used in numerous areas. Recent research suggests privacy concerns might hinder technology adoption (Kronemann et al., 2023). AI increases technology owners' ability to obtain, appraise, integrate, and manage user data. Hence, Kronemann et al. (2023) suggest that not all stakeholders will embrace it. Additionally, websites and platforms now keep more users' private data due to the growth of the Internet. This increase in data collection has raised privacy worries among AI users.

Hacking, virus dissemination, harmful software distribution, data theft, and leaking from government, municipal, educational, and financial organisations have also caused safety difficulties. Personal data for online services is included. Malicious data leaks have led to spam, voice phishing, and messaging apps. This has caused nationwide property damage, economic losses, and societal ramifications (Sang et al., 2019).

Additionally, trusting someone often requires confidence. To deserve confidence, one must be trustworthy (Gillath et al., 2020). AI must function to be trusted. Even though AI is advanced, many humans require assistance trusting it. Researchers found that 42% of individuals think AI should be trusted more, and 49% cannot identify a single AI product they trust. Insufficient understanding of AI and fear of AI, with over 25% of respondents reporting dread, make people cautious of AI. Whatever the cause, overconfidence may reduce interaction, effectiveness, and creativity. This may limit AI systems agents and new technology (Gillath et al., 2020).

1.2.2.2 Specific Issues

Many educational technology developments have predicted the demise of conventional schooling (Mhlanga, 2023). The public is typically concerned about numerous issues, mainly undergraduate students.

Effective and accurate AI-facilitated communication is a difficulty. Although most students in the study use AI chatbots to handle academic challenges, their top fear is obtaining incorrect advice and information. A similar research by Seo et al. (2021) found that students worry that AI may provide erroneous replies that might hurt their academic success.

AI systems can now identify student data thanks to advances in intelligence processing. Online learning leaves traces of students' network surfing history, location, download history, and more. Since third-party institutions handle and store most educational data, protecting student privacy is difficult (Huang, 2023).

Inaccuracy in AI systems may cause biases, inequities, and damage, which raises trust concerns (Lockey et al., 2021). AI systems can be designed to succeed in accuracy measures for white males, but they may fail in others, notably for minority populations, according to Lockey et al. (2021). ChatGPT is frequently "confidently wrong" in education (Hulick, 2023). This is because most of its training data predates September 2021 and it requires additional information source openness. AI typically fabricates information when questioned. Thus, confidence in AI applications may need more than accuracy numbers.

1.2.2.3 Significance of the Issue

In the context of undergraduate managerial perspective, as the advancement of Artificial Intelligence (AI) chatbot has emerged in these very few years in the education sector and been popularised among students, there are potential concerns that are largely unknown and unanswered to evaluate and implement the appropriate strategies for integrating AI education into existing academic framework. The above issues are concerning and worthy of discussion.

1.2.3 Research Gap

1.2.3.1 Supports

This research reveals numerous studies that have explored the behavioural intention of utilising AI within the education industry. According to Mohsin et al. (2024), undergraduate students' intentions to embrace AI are highly influenced by elements such as social authority, performance and effort expectations, and enabling environments. Similarly, Kim et al. (2020) discovered that the perceived usefulness of AI and ease of communication with AI directly impact students' attitudes toward AI, thus affecting their intention to adopt it. Additionally, Qashou (2021) concluded that perceived usefulness, ease of use, and self-efficacy impact students' perceptions of AI chatbots and their desire to use them.

However, despite abundant research, few studies have investigated how inaccuracy in perceived communication quality, perceived privacy risk, and trustworthiness affect the behavioural intention to use AI. Furthermore, more research is still to be

done on undergraduate students' behavioural intentions to employ AI in their academic endeavours. Thus, our study is a pioneering effort to develop a conceptual framework and empirically examine this phenomenon. Doing so establishes a foundation for future research into the factors influencing the behavioural intention to use AI. Subsequent studies can build upon our findings, mainly on undergraduate students leveraging AI technologies.

1.2.3.2 Significance of Undergraduate Students

Although there has been limited research on the behavioural intention to use AI among undergraduate students compared to other fields, it is a vital area of study that demands attention, particularly given the significance of undergraduate students in this research.

According to Nwadinobi et al. (2024), AI enhances undergraduates' efficacy in higher education institutions. AI has the potential to enhance undergraduate students' engagement through the provision of perceptive evaluations of their work and the acceleration of the feedback-giving process. Undergraduates who use AI agree proficiency in the field will help them achieve more academic success. Thus, the use of AI by Malaysian undergraduate students is significant.

1.3 Research Objectives

1.3.1 General Objectives

The primary aim of this study is to highlight how certain factors affect the behavioural intentions of undergraduate students to use AI.

1.3.2 Specific Objectives

The following are the particular goals from the given overall goals:

1. To establish whether perceived communication quality has a significant positive effect on behavioural intention to use AI.
2. To establish whether perceived privacy risk has a significant negative effect on behavioural intention to use AI.
3. To establish whether trustworthiness has a significant positive effect on behavioural intention to use AI.

1.4 Research Questions

Three research issues that will each be clarified will serve as the direction for the investigation. These are as follows:

1. To what extent does perceived communication quality positively affect higher education students' behavioural intention to use AI?

2. To what extent does perceived privacy risk negatively affect higher education students' behavioural intention to use AI?

3. To what extent does trustworthiness positively affect higher education students' behavioural intention to use AI?

1.5 Hypothesis

After examining pertinent literature, researchers formulated three hypotheses corresponding to the research questions:

H1: Perceived communication quality has a significant positive effect on behavioural intention to use AI.

H2: Perceived privacy risk has a significant negative ef on behavioural intention to use AI.

H3: Trustworthiness has a significant positive effect on behavioural intention to use AI.

1.6 Significance of the Study

With the rise of the knowledge and information era, there is a rapid evolution in industrial structure and work culture within modern society (Lee & Cho, 2021). As AI services become increasingly prevalent, their significance in education is rising. Therefore, this study is crucial for comprehending the factors influencing undergraduate students' intentions to utilise AI, ensuring institutions effectively incorporate AI into the academic learning process.

Education policymakers, like the Ministry of Education Malaysia (MOE), can benefit significantly from the study's conclusions as they establish suitable curricula and instructional approaches. By incorporating insights from this research, MOE can better tailor educational programmes to equip students with the necessary skills and knowledge to use AI technologies responsibly.

AI also contributes significantly to higher education's administrative efficiency by automating processes, customising learning environments, and analysing data to boost productivity. Educational establishments may save money and time as a result of these developments.

Besides, this research's relevance extends to undergraduate students who seek a deeper comprehension of the importance of integrating AI into education. By shedding light on these potential factors, this study promotes a more informed perspective on AI usage within educational contexts.

1.7 Chapter Layout

Chapter 1 comprises eight subtopics that begin with an outline and expand on the research problem. Additionally, this chapter will provide an overview of the study objective, the issue that needs to be addressed, and the proposed results to be looked at. The importance of the study is elucidated before outlining the chapter and providing a summary.

Chapter 2 entails literature reviews that discuss and summarise previous investigations conducted by various researchers. The chapter commences with an overview of its purpose and structure, followed by a brief introduction to the underlying theories that will be applied in further discussion. Subsequently, a literature review analyses independent and dependent variables sourced from secondary sources, primarily journal articles. Furthermore, it includes a conceptual framework that delineates the connection between the variables. Finally, it progresses to hypothesis development and concludes with a chapter summary.

Chapter 3 discusses the study's qualitative and quantitative research methods. Researchers will survey the target population using a questionnaire for study data. Research design, data collection strategies, design of the sample, research tool, measurement development, processing and analysing the information, and a summary of the chapter are all covered in this chapter.

Chapter 4, presents research questions and hypotheses-related outcomes and analysis. This chapter covers descriptive analysis, including constructing central tendency assessments and respondent demographic characteristics. Scale measurements will be taken to test dependability. Inferential analysis uses sample data to determine population characteristics. The chapter will finish with an overview of significant concepts.

Researchers will review statistical studies, highlight vital results, explore management ramifications, and provide policymakers and practitioners practical insights in Chapter 5. Finally, this chapter will address the study's limitations and provide recommendations for future research.

1.8 Chapter Summary

In conclusion, researchers have examined at the history of artificial intelligence (AI) and the variables affecting college students' behavioural intention to utilise AI. The study aims to pinpoint the precise elements that motivate students to want to employ AI in their coursework. Researchers will examine three key factors: perceived communication quality, perceived privacy risk, and trustworthiness. The subsequent chapter will delve into a more comprehensive discussion by referencing numerous literature reviews.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter aims to study and evaluate the prior researchers' study of this topic. Section 2.1 discusses the underlying theories that are relevant to this study. Section 2.2 describes the dimensions of dependent and independent variables identified in Chapter 1. Section 2.3 analyses the proposed conceptual framework given the research goals. Section 2.4 highlights and discusses the relationship between the hypotheses. The summary of this chapter concludes with the final section, Section 2.5.

2.1 Underlying Theories

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is most frequently used to analyse how someone adopts systems of information. This model was developed by Fred Davis in 1986, and it is an adaptation of the more extended TRA. Based on the TRA approach, a person’s behaviour determines behavioural intentions. Behavioural intentions are characterised by a person's perspective on action and the arbitrary norms about its execution. This hypothesis proposes that two main elements affect an individual's adoption of technology: perceived utility and perceived usability (Brătianu et al., 2021).

Perceived ease of use is individuals' faith in their ability to use technology with little effort. Besides, perceived usefulness is the notion that a particular technology can improve task performance. In other words, users are more inclined to accept technology they consider user-friendly, straightforward to use, and capable of enhancing tasks (Thu Myin & Watchravesringkan, 2024).

Moreover, according to Thu Myin and Watchravesringkan (2024), attitude is a user's evaluation of a system's usefulness in the context of their job. It can also refer to a person's positive or negative emotions towards something. Behavioural intention has played an essential part in encouraging individuals to innovate. The TAM approach, suggests that people's behaviour towards technology significantly impacts their behavioural intention to use it. Furthermore, it is stated that adopting technology is more likely when it is deemed user-friendly and valuable. In the context of the use of AI, users who see AI as trustworthy, helpful, and capable of meeting their demands are prone to employ the technology. (behavioural intention)

Apart from that, Fishbein and Ajzen introduced the Theory of Reasoned Action in 1975 to explain how purpose might project and predict human actions. According to the theory, the most essential component determining whether or not an action will occur is the individual's intention. This theory has been widely used in information and communication technology and has since become a theoretical framework for research on technology adoption (Cho et al., 2023).

2.1.2 Theory of Reasoned Action (TRA)

The theory of reasoned action (TRA) is frequently utilised in social studies to understand user intentions and behaviours. TRA suggests that users' behaviour impacts their behavioural intentions, which are influenced by behavioural beliefs and result evaluations. Subjective Norm (SN) is a social factor variable that describes the extent to which the ideas and views of those around you determine new products and services. This has been explored as a significant component that impacts technological acceptability and a variable that significantly affects autonomously selecting and converting to a new alternative. According to Hsiao and Chen (2021), trustworthiness is a crucial driver influencing users' behavioural intentions. Studies indicate that some users are prone to trust AI more than humans due to their perceived objectivity and rationality.

2.1.3 Theory of Planned Behavior (TPB)

Azjen (1991) proposed the Theory of Planned Behavior (TPB), which examines the factors determining behavioural intention, such as mindset, personal standards, and perceived control of behaviour. Attitude is an individual's evaluation of behaviour, whether good or bad (Albashrawi, 2023). TPB aims to forecast people's intentions and behaviours in many real-life settings, and it is a prolongation of the TRA whereby it tackles the limits and inefficiencies of TRA in dealing with persons who have little control over their behaviour (Belkhamza et al., 2019).

Besides, Winston et al. (2016) stated that TPB examines how an individual's intentions are influenced by their environment. Intentions to engage in a specific action were linked to subjective norms, perceived control of behaviour, and attitude

towards the action. TPB has been applied to address technology adoption issues, including implementation, usage, and abuse. According to Mehdy et al. (2021), the TPB is commonly used to interpret health-related behaviours and it is also mentioned that the TPB is enhanced by including perceived trust and privacy risk components to predict the utilization of online technology information (technology acceptance).

2.2 Review of the Literature

2.2.1 Dependent Variable – Behavioural Intention

According to Chai et al. (2021), behavioural intention is conceptualised as being influenced by individuals' knowledge or beliefs regarding the behaviour. Such knowledge is typically acquired through exposure to mass media or formal education. Hence, students are more inclined to embrace AI learning if they perceive their ability to learn AI to be facilitated and if they comprehend the benefits of AI learning.

From the perspective of Choung et al. (2022), AI users' behavioural intention to use AI chatbots will be impacted. They argue that trust indirectly impacts usage intention by enhancing perceived usefulness and fostering positive attitudes rather than directly affecting it. Therefore, they advocate for future studies exploring AI acceptance to incorporate the trust construct as a fundamental component of their predictive models.

From the above researchers, this study agrees on both dimensions from Chai et al. (2021) and Choung et al. (2022) since they provide insightful information about the variables influencing behavioural desire to adopt AI. Acknowledging the complementary perspectives of both studies underscores the multifaceted nature of behavioural intention formation in the context of AI usage.

2.2.2 Independent Variable – Perceived Communication Quality

According to Song et al. (2022), perceived communication quality is an essential indicator of service effectiveness and influences the user's perception. It was divided into five categories: accuracy, credibility, openness, attraction, and communication capability. The authors stated that these five elements are prone to being crucial during chatbot interactions with users.

Accuracy refers to offering users accurate and on-time content. Credibility relates to users' perception of communication reliability and is a key in user acceptance of emerging technologies. A user's willingness to be receptive to the communication process is characterised as openness. Attraction in this context is defined as the perceived friendliness of AI chatbots during communication with users. At the same time, the last dimension is communication capability, which refers to effectively dealing with challenging problems (Song et al., 2022).

According to Zhou et al. (2023), perceived communication quality is a common user-cognitive reaction in computer-mediated communication, emphasising the difficulties in determining the quality of communication. Research indicates several ways to improve communication quality, including interactions, resource trustworthiness, ability, and social credibility. Moreover, research reveals that

people are more sympathetic and pleased when a failure in online communication is credited to a chatbot rather than an actual human being. This shows that users perceive chatbots to have lower communication quality than human agents.

From the above researchers, this study agrees with Song et al. (2022), who stated the cruciality of communication quality as it may add value to client interactions. It also noted that the communication process must satisfy the criteria encompassing the multiple dimensions (accuracy, credibility, openness, attraction, communication capability) for the users to feel that they are receiving excellent communication and to react favourably at every stage of the procedure.

2.2.3 Independent Variable – Perceived Privacy Risk

Privacy refers to the right of individuals, associations, or institutions to control how information about them is shared with others. From the perspective of Jiang et al. (2022), an individual's privacy is put at risk when they lack control over how their personal information is gathered, stored, used, or revealed. Users with a high perception of privacy are more likely to value the confidentiality of data, prioritise safety and security, and take precautions when doing online activities. On the other hand, risk perception is defined as the user's expectation of the worst-case scenario for excessive disclosure of personal information. The study by Jiang et al. (2022) demonstrates that the perceived risk by the user significantly weakened the relationship between behavioural intention and performance expectation.

However, according to Vimalkumar et al. (2021), perceived privacy risk refers to the perceived loss of potentially disclosing user personal information. In the era of technological advancement, users have been concerned about giant tech companies

such as Google, Facebook, and Apple acquiring and using personal information. A study found that perceived privacy risk reduces users' satisfaction with AI chatbots. It also indicates that perceived privacy risk leads to lower trustworthiness of the technology, and it is necessary to address the risk perception associated with technologies.

From the perspective of Song et al. (2022), Perceived privacy risk covers a number of issues, such as the unlawful disclosure of private client information to other parties, pushy email correspondence from internet marketers, and the tracking of users' online activities. Artificial Intelligence (AI) has become a ubiquitous new technology in our daily lives. Yet, because of its unpredictable nature, inadequate algorithmic openness, lack of compassion, and ethical coherence, it has prompted worries about privacy dangers. In addition, the study shows that consumers' worries about privacy leakage increased with the introduction of new technologies like smartwatches, e-wallets, and e-banking. According to the 2019 China Economic Life Survey, which was carried out by Tencent Research Centre and China Central Television, over 77% of participants thought that using AI would compromise their privacy (Song et al., 2022).

Overall, this study agrees with Jiang et al. (2022) as they emphasise that although AI improves convenience, it also increases user privacy issues. Moreover, the effect of perceived privacy risk negatively correlates with AI adoption intention, whereby higher perceptions lead to lower adoption intentions.

2.2.4 Independent Variable – Trustworthiness

According to Nguyen et al. (2023), trustworthiness is characterised by being reliable and worthy of confidence. Users' interactions with the system influence their trust in AI. When interactions are perceived as trustworthy and complete, users are more likely to trust AI systems, as they believe the information provided is credible and persuasive, especially when they have positive relationships with the communicators, which are AI systems.

Nonetheless, there is a growing need to identify and look at users' trust in AI-enhanced technologies, given their increasing popularity across various areas (Choung et al., 2022). Two levels of trust were identified by Choung et al. (2022) through an exploratory factor analysis: human-like trust and functioning trust. Researchers especially concentrate on the functional trust element of AI in this study, including its capability, dependability, and safety. This is because developing reliable AI technology requires better functionality.

In summary, researchers support both dimensions above. Both Nguyen et al. (2023) and Choung et al. (2022) shed light on the importance of trustworthiness in shaping user perceptions and interactions with AI technologies. Enhancing the functionality of AI technology is pivotal in fostering user trust and confidence, thus highlighting the significance of both studies' insights in comprehensively understanding trust in AI technologies.

2.3 Proposed Conceptual Framework

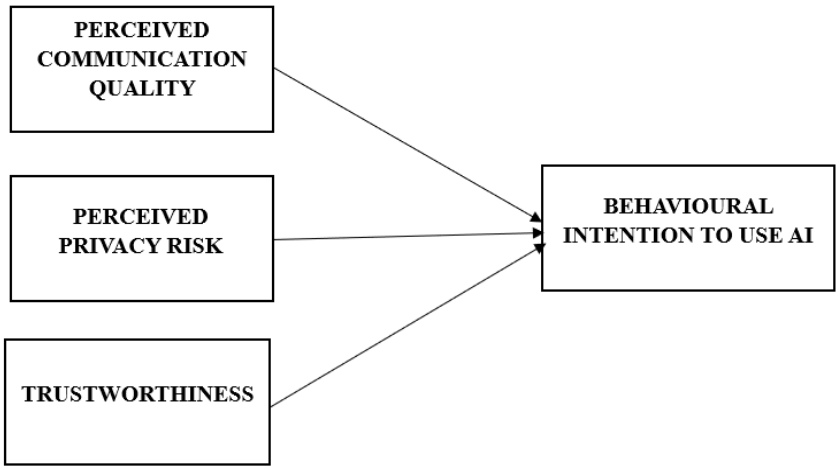

Figure 2.1: Proposed Conceptual Framework. Developed For The Research.

Figure 2.1 depicts the link between Perceived Communication Quality, Perceived Privacy Risk, Trustworthiness, and the user's behavioural intention to use AI. Perceived communication quality is one factor affecting the users' behavioural intention to use AI. Perceived communication quality has five dimensions: accuracy, credibility, openness, attraction, and communication capability. According to Sumarjan et al. (2023), perceived communication quality will positively affect the behavioural intention to use AI. According to the Technology Acceptance Model theory, this technique is frequently employed to predict consumer acceptance of innovation. When given a new technology, individuals' decision to adopt it depends on numerous factors such as trustworthiness, usefulness, user-friendliness, et cetera. Based on the hypothesis of this study, each user has different priorities. Hence, the theory has been used to support the claim that perceived communication quality significantly affects behavioural intention to use AI.

Perceived privacy risk is the second factor that would negatively affect undergraduate students' behavioural intention to use AI. There are two dimensions

under this factor, including privacy and risk perceptions. According to Jiang et al. (2022), perceived privacy risk will affect behavioural intention to use AI. Several studies state that customers' tendency to use mobile technology is strongly influenced by perceived privacy (Trivedi et al., 2022). Recognising that users' privacy risk perceptions vary, this research proposes a large negative link between perceived privacy risk and AI activity.

Additionally, trustworthiness is a significant factor positively influencing the behavioural intention to use AI, encompassing dimensions of being worthy of trust or confidence and functional trust. Hasan et al. (2023) confirm the significant impact of trustworthiness on the behavioural intention to use AI. According to the Theory of Reasoned Action, users' attitudes impact their behavioural intentions, which are influenced by behavioural beliefs and result appraisal, whereby trust is one of the key drivers (Hsiao & Chen, 2021). However, not all users perceive trustworthiness as a factor influencing their intention. This idea suggests a strong positive correlation between trustworthiness and AI usage.

2.4 Hypothesis Development

2.4.1 Relationship between perceived communication quality and behavioural intention

The quality of communication significantly influences the behavioural intention to use AI chatbots. According to Paraskevi et al. (2023), a noteworthy association exists between behavioural intention and the quality of the information provided to users, underscoring the need to provide precise and reliable information. Effective communication with AI technology providers enables problem-solving,

underscoring the significance of information exchange during interactions with AI chatbots. Additionally, researchers such as Vlachos and Vrechopoulos, Tan and Chou, and Chae et al. imply that the availability of current and accurate information from smartphone chatbots positively affects users' intentions to utilise (Paraskevi et al., 2023).

Moreover, Sumarjan et al. (2023) find a noteworthy connection between communication accuracy and intention to use AI chatbots. They emphasise the importance of AI being easy to interact with, understanding user input, and providing relevant information to enhance performance qualities such as competence, accuracy, and dependability (Sumarjan et al., 2023). Furthermore, Chung et al. (2020) state that the accuracy and credibility of chatbot communication positively impact customer satisfaction.

This body of research aligns with our investigation into the determinants and perceptions of undergraduate students, illustrating how the quality of communication with AI chatbots is a critical factor in their adoption and usage. Therefore, perceived communication quality is hypothesized to positively influence the behavioural intention to use AI.

H1: Perceived communication quality has a significant positive effect on behavioural intention to use AI.

2.4.2 Relationship between perceived privacy risk and behavioural intention

According to Chatterjee (2020), users' behavioural desire to adopt AI is significantly impacted by perceived privacy risks. Threats to privacy and security are typically what cause risk. Customers will lose trust in an action if there is a danger involved, which will significantly impact their purpose. While using AI technologies, users are concerned about their data leakage jeopardising their privacy. Thus, perceived privacy risk is a prime inhibitor in the acceptance of AI technologies.

Furthermore, Wang and Lin (2016) discovered that there is an adverse correlation between users' perceptions of privacy risk and disclosing personal information to a service provider while using AI technology. If users fear that service providers will disclose their information to third parties without their permission, they may be less likely to use AI technologies regularly. Therefore, while utilising AI technologies, behavioural intention may be adversely affected by perceived risk.

In contrast to prior research, perceived privacy risk did not affect AI technology usage (Vimalkumar et al., 2021). Although perceived privacy risk was found to significantly influence perceived privacy concerns and trust, it did not significantly impact consumers' adoption behaviour. This conclusion contrasts with findings from earlier studies.

Investigating how privacy issues affect undergraduate students' adoption behaviour of AI chatbots is essential when analysing their use of these tools. Perceived privacy risk and behavioural intention to utilise AI are adversely correlated in this study, which is why the hypothesis test includes them.

H2: Perceived privacy risk has a significant negative effect on behavioural intention to use AI.

2.4.3 Relationship between Trustworthiness and Behavioural Intention

According to Hasan et al. (2023), trustworthiness significantly influences the behavioural intention to use AI technologies. High levels of trust in the reliability of a contemporary system lead to increased adoption and usage of the technology. Thus, professionals who trust in the reliability and security of AI are more likely to exhibit positive behavioural intentions toward its use.

Besides, a similar relationship between perceived trustworthiness and purchasing intention is observed (Frik & Mittone, 2019). Chen and Barnes (2007) found that perceived usefulness, privacy, and security correlate with initial online trust, subsequently affecting the intent to purchase (Frik & Mittone, 2019). Participants are more inclined to make purchases from trustworthy websites and less inclined to purchase untrustworthy ones.

However, Pal et al. (2022) report contrasting findings, indicating that trustworthiness does not impact the behavioural intention to use AI technologies. This discrepancy may be attributed to users' negative emotions towards AI technologies, including fears of machines overpowering humans and concerns about losing control over systems. Additionally, users may need more confidence in the functionality of AI-based devices due to compatibility issues between

technologies from different manufacturers, resulting in decreased behavioural intention to use them.

By examining these dimensions, our study aims to provide a nuanced understanding of how trust and other determinants affect undergraduate students' perceptions and intentions to use AI chatbots. Nonetheless, in this study, researchers hypothesise that users perceiving AI technologies as trustworthy will demonstrate a greater intention to use them.

H3: Trustworthiness has a significant positive effect on behavioural intention to use AI.

2.5 Chapter Summary

This chapter comprehensively analysed independent variables (trustworthiness, perceived communication quality, perceived privacy risk). Researchers proposed a theoretical framework and hypotheses development as the research study guideline. The study methodology will be carried out in Chapter 3 based on the topics established.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

Chapter 3 discusses the researcher's data collection and study challenge solution technique. Section 3.1 discusses research design and qualitative or quantitative question-answering strategies. Data collection techniques are in Section 3.2. Sections 3.3 to 3.7 include the research instrument, sample design, construct measurement, and data processing. Section 3.8 summarises the chapter.

3.1 Research Design

Researchers used quantitative research to develop a questionnaire for this empirical study to collect data. As grounded theory is used as supporting material in this empirical study, this quantitative business research makes it simple to develop a questionnaire. In addition, it has the hypothesis to test whether one can accept or reject, and the questionnaire is answered as fixed alternative questions and has statistical information analysis. Therefore, it was chosen because it is an objective result, which indicates that the sample result has the same conclusion.

Therefore, causal research is suitable as this study examines the link between independent variables (perceived communication quality, perceived privacy risk,

trustworthiness) and the dependent variable (behavioural intention of undergraduate students).

3.2 Data Collection Method

In empirical investigations, a data-collection technique is a process that researchers use to gather the main and secondary data required to assess the hypothesis and answer the study questions. Scholars will compile both primary and secondary evidence to support the study's findings with respect to the research question. Researchers designed a questionnaire using Google Forms, an online survey tool, to collect data from thirty undergraduate students who use AI.

3.2.1 Primary Data

Based on Mazhar et al. (2021), primary data are those initially gathered from the study. The primary data methods gather real-time data directly from primary sources through surveys. Gathering the data for the research project, especially through observations, normally takes a lengthy time when using the primary data-gathering approach (George, 2023).

Besides, researchers gather data from official documents, web pages, journal articles, books, and other sources to augment the literature assessment. The data from multiple journal papers is used to build the survey questionnaire.

3.3 Sampling Design

A sampling design is a methodical strategy to choose a sample from a certain population. A sampling plan must be implemented by carefully selecting a small population sample, examining it in-depth, and then safely drawing conclusions that can be applied to the entire population (Rashid, 2020). To effectively collect data for the research, researchers must first choose the target demographic of respondents. Next, researchers must determine the sampling frame, location, elements, methodologies, and size.

3.3.1 Target Population

The assembly of individuals from whom the measure of intervention is intended to be investigated and conclusions derived is referred to as the target population, according to Barnsbee et al. (2018). It will be explained in detail because of its cost-effectiveness and ability to capture best the traits of the target population and any subgroup (Draugalis & Plaza, 2009). Since Malaysian undergraduates make up the largest group of students enrolled in higher education institutions in 2023 (640,020), they are the study's target audience. Due to the large population size, researchers have chosen to represent the entire population by using sample techniques, which can lower the possibility of errors during data treatment.

Table 3.1: *Number of Students' Intake, Enrolment and Output by Level of Studies in HEIs for The Year 2023*

No.	Level of Studies	HEIs Category	Intake			Enrolment			Output		
			M	F	T	M	F	T	M	F	T
1	**Bachelor**	Public Universities	39,950	63,205	103,155	143,251	232,653	375,904	33,571	58,124	91,695
		Private HEIs	34,623	37,896	72,519	124,284	139,271	263,555	22,393	24,174	47,567
		Polytechnics	138	71	209	342	219	561	97	83	180
		Total	**74,711**	**101,172**	**175,883**	**267,877**	**372,143**	**640,020**	**56,061**	**83,381**	**139,442**

Note: Ministry of Higher Education Malaysia (2024)

3.3.2 Sampling Frame and Sampling Location

The list of every member of the relevant population is the sampling frame. Another way to define it is as a variety of source materials chosen from a sample. Researchers must choose a suitable sample frame because it will influence the likelihood of selection (Turner, 2003). However, due to the large number of undergraduates, it is impossible to identify the sampling frame.

The site of the investigation is known as the sampling location. Researchers conducted their investigation at higher education institutions in Selangor (430,159), Kuala Lumpur (173,685), and Perak (85,951). Out of all the states in Malaysia, these three have the greatest number of undergraduate students in 2023.

Table 3.2: *Number of Students' Enrolment by State of HEIs for Year 2023*

No.	State of HEIs	Type of Institutions	Enrolment		
			M	F	T
1	**PERAK**	Public Universities	13,188	26,350	39,538
		Private HEIs	16,581	26,350	35,494
		Polytechnics	5,822	18,913	9,113
		Community Colleges	968	3,291	1,806
		Total	**36,559**	**49,392**	**35,951**
2	**SELANGOR**	Public Universities	54,521	96,395	150,916
		Private HEIs	124,924	144,558	269,482
		Polytechnics	3,709	3,255	6,964
		Community Colleges	1,810	987	2,797
		Total	**184,964**	**245,196**	**430,159**
3	**W.P KUALA LUMPUR**	Public Universities	22,606	31,745	54,351
		Private HEIs	57,353	61,495	118,848
		Polytechnics	253	233	488
		Community Colleges	0	0	0
		Total	**80,212**	**93,473**	**173,685**

Note: Ministry of Higher Education Malaysia (2024)

3.3.3 Sampling Elements

The participants in this study are referred to as the sampling element. Undergraduate students who rely on AI technology are the participants in this sampling process. The general information of respondents, including their gender, age, and ethnic group, will be divided into separate sections of the questionnaire. Regarding the research issue, the remaining details pertain to independent variables (trustworthiness, perceived privacy risk, and perceived communication quality) and dependent variables (behavioural intention).

3.3.4 Sampling Technique

Several techniques are used to identify the sample using sampling processes. Probability sampling and non-probability sampling are the two categories of sampling. The researchers will use non-probability sampling in this experiment. Taherdoost (2016) identified four non-probability sampling techniques: convenience, quota, snowball, and judgement sampling.

As a result, researchers decided to use both snowball and quota sampling in this investigation. Researchers divide the population into mutually exclusive divisions, or strata, and continue doing so until the quota is attained by employing quota sampling (Kassiani Nikolopoulou, 2022). In this study, the target population is divided into multiple groups according to various states by the researchers. The top three states (Selangor, Kuala Lumpur, and Perak) were then selected based on the quantity of undergraduate students they had.

Besides, snowball sampling is used in this study. Research participants are requested to help researchers find more possible subjects. Undergraduate students in Selangor, Kuala Lumpur, and Perak will receive the survey questionnaire. The survey's respondents will then assist the researchers in disseminating it to other undergraduate students at their university or among their acquaintances.

3.3.5 Sampling Size

The sampling size is the quantity of individuals or observations that are conducted in a study. When representing a number, n is typically used. Krejcie and Morgan's table (Table 3.1) states that the researcher has to extract at least 400 data sets from the sample size of Malaysian undergraduate AI users. Researchers determine each state's proportion based on the variations in undergraduate enrollment among the three states. The required number of respondents was then obtained by the researchers from these three states based on the size of the population. Thus, at least 240 responses from Selangor undergraduate students, 97 from Kuala Lumpur, and 48 from Perak undergraduate students are required for this study. The researcher will choose 30 pieces of data for it by conducting a pilot study.

Table 3.3: *Required Number of Respondents in the Research*

States	**Percentage**	**Number of respondents**
Selangor (430,159)	$\frac{430,159}{689,795} \times 100\% = 62.36\%$	$400 \times 62.36\% = 250$
Kuala Lumpur (173,685)	$\frac{173,685}{689,795} \times 100\% = 25.18\%$	$400 \times 25.18\% = 101$
Perak (85,951)	$\frac{85,951}{689,795} \times 100\% = 12.46\%$	$400 \times 12.46\% = 50$

Note: Developed for the research

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.
Source: Krejcie & Morgan, 1970

Figure 3.1: Sample Size Selection Table. Adopted from Krejcie and Morgan (1970)

3.4 Research Instrument

3.4.1 Questionnaire Survey

The researchers employed the questionnaire in two languages: Malay and English. This ensures cost and time savings and enables the researchers to reach many individuals to answer the questions. Researchers used Google Forms to generate the questionnaires in 5 days. After designing it, they promptly delivered the questionnaires to the target respondents, who were university students. Furthermore, researchers applied fixed-alternative questions to create this

questionnaire. This study surveyed fixed-alternative questions because researchers need less interviewer expertise, it takes less time to answer than open-ended questions, and it is easier for respondents to answer.

3.4.2 Pilot Study

A small-scale investigation technique called a pilot study is used to gather data from participants, which is then used in the larger study. In other words, the pilot study is conducted before the complete research. To collect data for this pilot study, researchers sent questionnaires to 30 people via email and social media platforms, including Instagram, WhatsApp, and Messenger. After collecting all survey data from respondents, the data is loaded into the Statistical Package for Social Sciences (SPSS) software, and a reliability test is performed.

3.5 Constructs Measurement

3.5.1 Origins and Constructs Measurement

The questionnaire used in this study was derived and modified from past studies. The table below indicates the questionnaire's origin and the number of questions used in the study. The questionnaire is classified into four parts: Sections B, C, D, and E, according to how perceived communication quality, perceived privacy risk, and trustworthiness will affect users' behavioural intentions.

Table 3.4: *Source Model of Construct Measurement*

Variables	Number of Question	Source(s) used
Behavioural Intention (Dependent Variable)	Question 1 to Question 10	(Choung et al., 2022) & (Chai et al., 2021)
Perceived Communication Quality (Independent Variable)	Question 1 to Question 15	(Song et al., 2022)
Perceived Privacy Risk (Independent Variable)	Question 1 to Question 7	(Jiang et al., 2022)
Trustworthiness (Independent Variable)	Question 1 to Question 10	(Van Thanh Nguyen et al., 2023) & (Choung et al., 2022)

Note: Developed for the research

3.5.2 Scale of Measurement

The measurement scale is a technique for categorising and explaining data. It is classified into four types: nominal, ordinal, interval, and ratio scale. In this study, researchers will employ the nominal, ordinal, and interval scales.

3.5.2.1 Nominal Scale

The nominal scale designates an essential measurement level. This type of data is utilised in statistics to pinpoint variables even in the absence of numerical values. Stated differently, nominal data designates variables that lack a quantitative value. In most cases, nominal data is analysed using frequency counts or percentages. For instance, one of the nominal questions in this questionnaire is as follows:

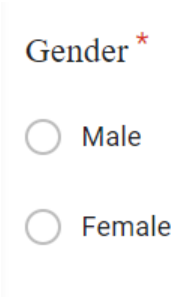

Figure 3.2: Nominal Scale Example

3.5.2.2 Ordinal Scale

The second level of measuring is the ordinal scale. It is an evaluation scale that does not indicate interval values between rankings. For example, the ordinal question in this questionnaire is the following:

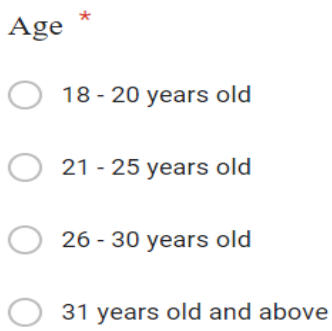

Figure 3.3: Ordinal Scale Example

3.5.2.3 Interval Scale

Based on the independent variables, Perceived Communication Quality (Section B), Perceived Privacy Risk (Section C), Trustworthiness (Section D), and the dependent variable Behavioural Intention (Section E) in this questionnaire, all the questions are interval scales. For example, the interval question in this questionnaire is as follows:

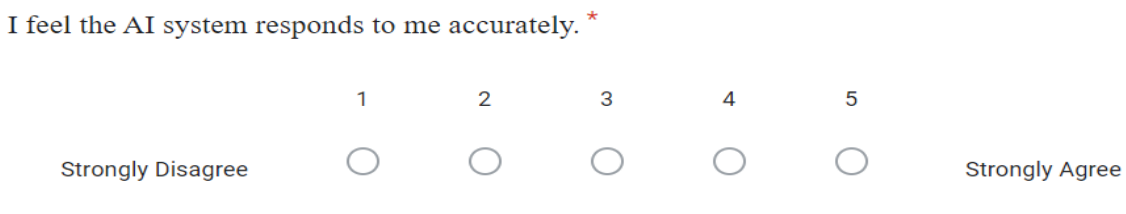

Figure 3.4: Interval Scale Example

3.6 Data Processing

3.6.1 Data Checking

Data validation and verification are critical components of data processing, as they guarantee the clarity and correctness of the information gathered from the survey. Researchers must ensure that the survey respondents completely address each question and avoid answering the same question more than once. Researchers must call the respondent to provide the needed information if there are any blanks. Moreover, the questionnaire has set a system for every question that must be answered so there would be no blank questions. Therefore, researchers are confident in the outcomes and can ensure that the data they submit is error-free.

3.6.2 Data Editing

The practice of reviewing and modifying acquired data is known as data editing. If the respondent's response disagrees with other data, researchers may modify the data to correspond with the previous response. There was no need to alter the data because the respondents fully understood the questionnaire.

3.6.3 Data Coding

Data coding is the technique that assigns numbers to each question's response options. The number researchers supplied allows the researchers to enter their data into the database. For example, in Section A, researchers assign the researcher to agree or disagree to provide their personal information: 1-Malay, 2-Chinese, 3-Indian, 4-other. In Sections B to E, researchers assign the code 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree.

Table 3.5: *Coding and Labels for Screening Questions and Section A: Demographic Profile*

Question Number	Label	Coding
Screening Question		
Q1	Undergraduate program	1 = Yes 2 = No
Q2	Prior knowledge or experience with AI technology	1 = Yes 2 = No
Section A		
Q1	Gender	1 = Male

		2 = Female
Q2	Age	1 = 18 - 20 years old 2 = 21 - 25 years old 3 = 26 - 30 years old 4 = 31 years old and above
Q3	Ethnic Group	1 = Malay 2 = Chinese 3 = Indian 4 = Other

Note: Developed for the research

Table 3.6: *Coding and Labels for Independent Variables and Dependent Variable*

Question Number	**Label**	**Coding**
Section B to Section D		
32 questions	3 Independent Variables	1 = Strongly Disagree

		2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Section E		
10 questions	Dependent Variable	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

Note: Developed for the research

3.7 Data Analysis

This study only used SPSS version 29.0 to evaluate the acquired data. Thirty questionnaires were sent to respondents; all were returned and could have been used for data processing. Data analysis is utilised to turn data into information and find the relationship between independent variables (perceived communication quality, perceived privacy risk, trustworthiness) and dependent variables (behavioural intention).

3.7.1 Descriptive Analysis

One kind of statistical analysis that helps in efficiently describing, showing, or analysing data points is called descriptive analysis (Rawat, 2021). This analysis will be performed for all the Section A: Demographic Profile questions. All three questions in this study (gender, age, and ethnicity) are nominal scales because their options are only assigned for identification or classification purposes without ranking. As all the questions under Section A: Demographic Profile belong to nominal scales, researchers use a frequency distribution to draw the pie chart.

3.7.2 Reliability Analysis

Researchers apply the SPSS model. Researchers utilised Cronbach's alpha (α) in this study. Alpha coefficients range in value from 0, representing all disagreements, to 1, representing all agreements.

Table 3.7**:** *The output of the reliability test generated in SPSS*

Types of Variables	**Variables**	**Items**	**α**	**Reliability**
Independent variable	Perceived Communication Quality	15	0.864	Very good reliability
	Perceived Privacy Risk	7	0.784	Good reliability
	Trustworthiness	10	0.896	Very good reliability
Dependent variable	Behavioural Intention	7	0.892	Very good reliability

Note: Developed for the research

In this study, the three independent variables are perceived communication quality, perceived privacy risk, and trustworthiness. Furthermore, one dependent variable—behavioural intention—is also examined. Perceived communication quality, the first independent variable, has a reliability test score of 0.864 for Cronbach's alpha. In 15 questions, the result ranges from 0.8 to 0.9, demonstrating excellent reliability.

The second independent variable, perceived privacy risk, is 0.784, according to Cronbach's alpha. The fact that this result ranges from 0.7 to 0.8 for 7 of the questionnaire's itemised questions indicates good reliability.

Cronbach's alpha for the reliability test indicates that the third independent variable, trustworthiness, has a value of 0.896. Given that the value of the questionnaire question falls between 0.8 and 0.9 for ten questions, this has demonstrated very good reliability.

Behavioural intention, the sole dependent variable, has finally demonstrated a value of 0.892 in the Cronbach's alpha result under the reliability test. Because the value of 0.892 lies between 0.8 and 0.9, it shows very good reliability in the 10 question items.

3.7.3 Inferential Analysis

Inferential statistics allows for generalisations about the larger population by comparing treatment groups based on measurements from an experiment's sample (Kuhar, 2010). This statistic includes the following five techniques:

1. Pearson correlation coefficient
2. Chi-square test
3. One-way ANOVA
4. Independent sample T-test
5. Multiple regression analysis

This investigation will ascertain if the independent factors (perceived communication quality, perceived privacy risk, and trustworthiness) will impact the dependent variable (behavioural intention) as proposed by the study's hypothesis. Therefore, the most appropriate technique to employ is multiple regression analysis. When the dependent variable grows while the independent variable declines, or vice versa, this is known as a negative regression. A positive regression, on the other hand, indicates a combined increase in the dependent and independent variables.

3.8 Chapter Summary

In conclusion, researchers use causal and quantitative research for the research design. Researchers used a questionnaire method to obtain the primary data from the population fixed by us for the study. The sample data used throughout the study have also been discussed. We also examined the study's sample data. Researchers described the scale of measurement used for each questionnaire variable and how data was prepared for analysis. In addition, researchers discussed how SPSS's reliability test works to finish data analysis. Finally, the descriptive, reliability, and inferential analysis are discussed and summarised.

Chapter 4: Research Results

4.0 Introduction

Researchers analyse questionnaire results in this chapter. Four hundred undergraduate students completed the provided questionnaires and provided their answers. and utilised SPSS Statistics software to assemble and analyse all of the study's findings. The first of this chapter's four sections is descriptive analysis, which includes the measurement of central tendencies based on the reliability test and the respondents' demographic information. In addition, it explores inferential analysis, which uses sample data to infer population characteristics by examining independent and dependent variables. This chapter concludes with a summary.

4.1 Descriptive analysis

4.1.1 Respondent Demographic Profile

Table 4.1**:** G*ender*

Gender					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Male	187	46.6	46.6	46.6
	Female	214	53.4	53.4	100
	Total	**401**	**100.0**	**100.0**	

Note: Developed for the research

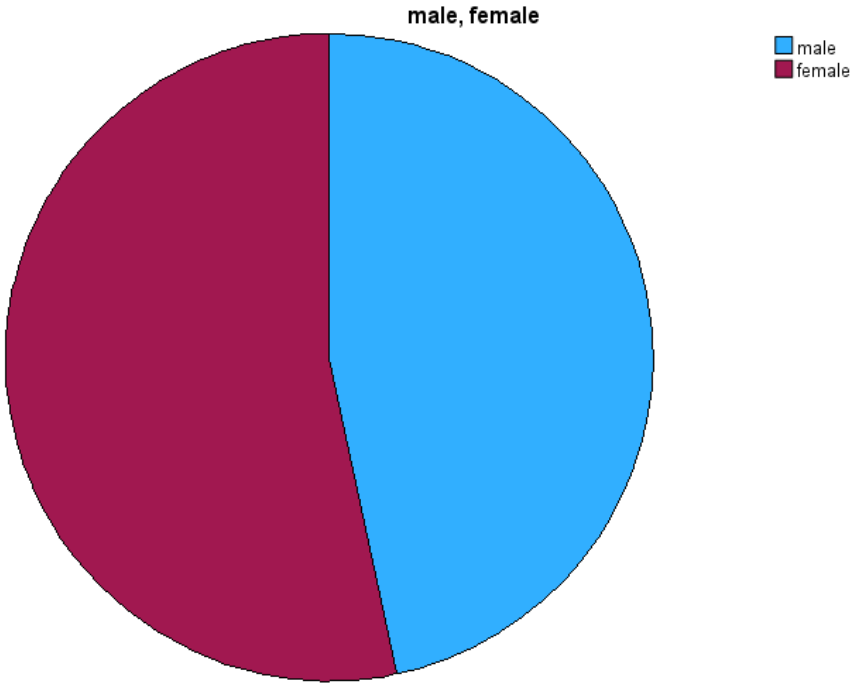

Figure 4.1: Gender

Figure 4.1 shows 187 respondents (46.6%) were male and 214 respondents (53.4%) were female in this survey.

Table 4.2: *Age*

Age					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	18-20 years old	177	44.1	44.1	44.1
	21-25 years old	201	50.1	50.1	94.3
	26-30 years old	23	5.7	5.7	100.0
	Total	**401**	**100.0**	**100.0**	

Note: Developed for the research

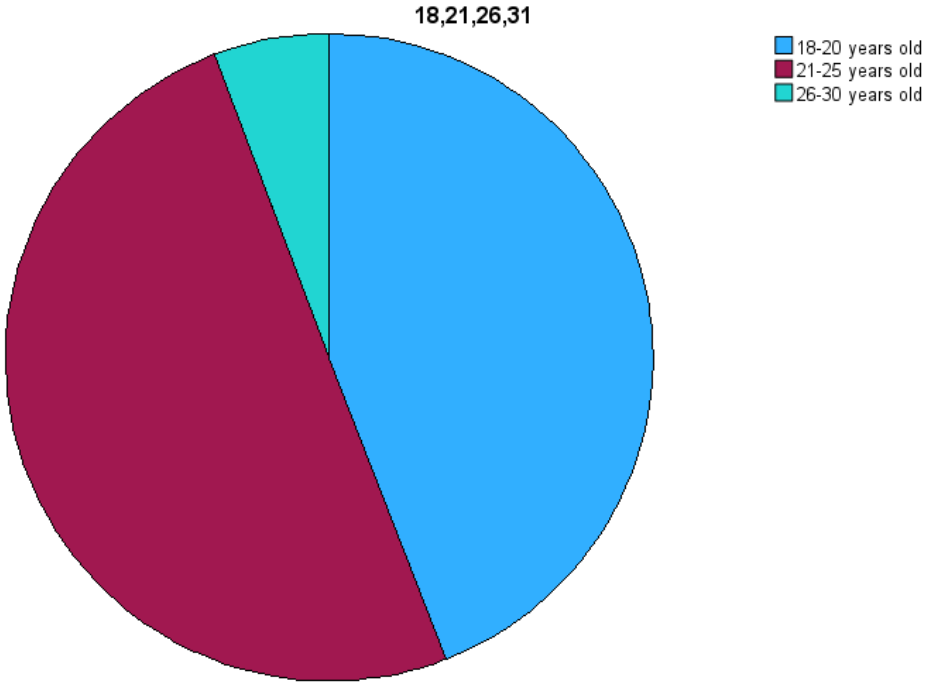

Figure 4.2: Age

Figure 4.1.1.2 shows 177 respondents (44.1%) aged 18-20 years old among respondents. 201 respondents (50.1%) aged 21-25 years old. The remaining 23 respondents (23%) were 26-30 years old.

Table 4.3: *Ethnic Group*

Ethnic group					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Malay	123	30.7	30.7	30.7
	Chinese	184	45.9	45.9	76.6
	Indian	94	23.4	23.4	100.0
	Total	**401**	**100.0**	**100.0**	

Note: Developed for the research

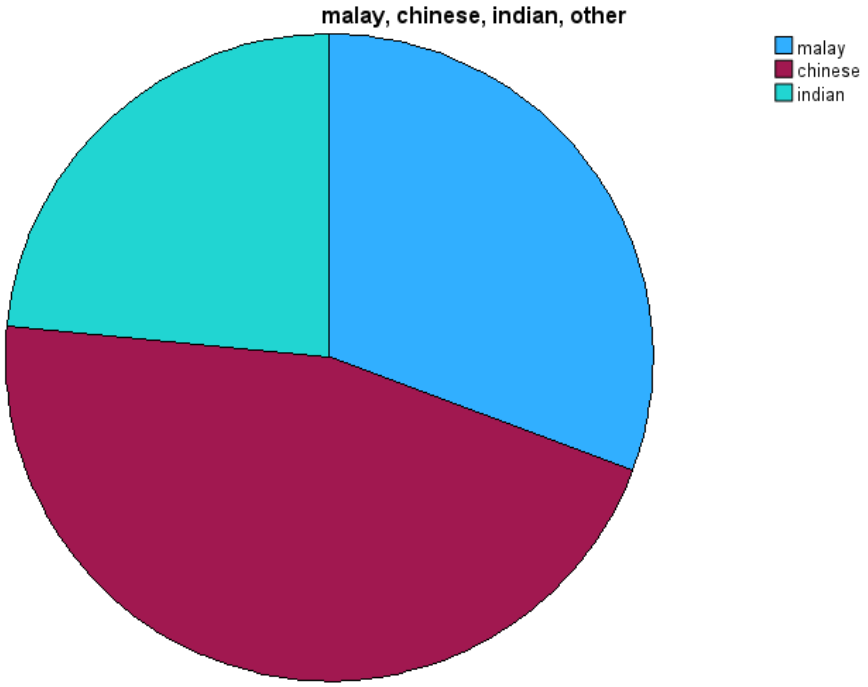

Figure 4.3: Ethnic Group

The demographic profile by ethnicity shows that there were 123 (30.7%) Malays, 184 (45.9%) Chinese, and 94 (23.4%) Indians. This demonstrates that different ethnic groups are affected by distinct factors that influence behavioural intention to use AI chatbots.

Table 4.4: *States*

States					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Selangor	250	62.3	62.3	62.3
	Kuala Lumpur	101	25.2	25.2	87.5
	Perak	50	12.5	12.5	100.0
	Total	**401**	**100.0**	**100.0**	

Note: Developed for the research

Figure 4.4: States

The majority of respondents (62.3%) comes from Selangor, 101 respondents (25.2%) come from Kuala Lumpur, and 50 respondents (12.5%) comes from Perak.

Table 4.5: *Year*

Year					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Year 1	100	24.9	24.9	24.9
	Year 2	163	40.6	40.6	65.6
	Year 3	108	26.9	26.9	92.5
	Year 4	30	7.5	7.5	100.0
	Total	**401**	**100.0**	**100.0**	

Note: Developed for the research

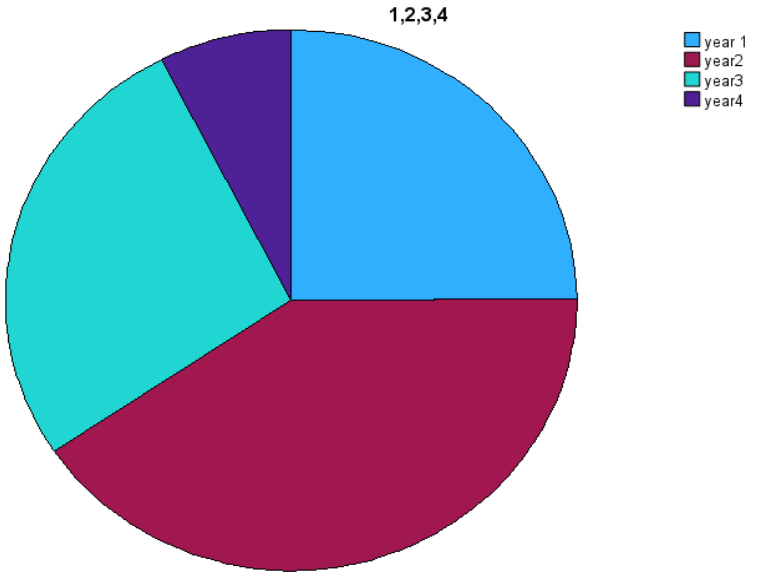

Figure 4.5: Year

There were 100 respondents (24.9%) currently Year 1 in their bachelor. Followed by 163 respondents (40.6%) and 108 respondents (26.9%) who were currently in Year 2 and Year 3 respectively. Only 30 respondents (7.5%) were currently in Year 4.

4.1.2 Central Tendencies Measurement of Constructs

Table 4.6: *Variables' means and Standard Deviation*

Variable	Sample size, N	Mean	Standard Deviation
Perceived Communication Quality	401	4.3102	0.45749
Perceived Privacy Risk	401	4.2846	0.53998
Trustworthiness	401	4.3526	0.52316
Behavioural Intention	401	4.3477	0.56562

Note: Developed for the research

Table 4.1.2 shows the variables' means and standard deviations. Trustworthiness has the highest mean score (4.3526), followed by Behavioural Intention (4.3477) and Perceived Communication Quality (4.3102). The Perceived Privacy Risk has the least significant mean score of 4.2846.

The standard deviation is also crucial since it reveals the mean variation of the data in this research. Behavioural Intention with the highest standard deviation (0.56562) represents that it spread further away from its mean compared to the other variables. Whereas the standard deviation of Perceived Privacy Risk and Trustworthiness were 0.53998 and 0.52316 respectively. However, Perceived Communication Quality had the lowest standard deviation, which was 0.45749.

4.2 Inferential Analyses

The impacts of the independent variables—perceived communication quality, perceived privacy risk, and trustworthiness—on the dependent variable—behavioural intention to use an AI chatbot—are investigated using multiple regression analysis. It employs known independent variables to predict the value of a single dependent variable.

4.2.1 Multiple Regression Analysis

Table 4.7: *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.776[a]	0.663	0.600	0.35785

a. Predictors: (Constant), Trustworthiness, Perceived Communication Quality, Perceived Privacy Risk

b. Dependent Variable: Behavioural Intention

Note: Developed for the research

R-Value

The degree of correlation between the independent and dependent variables is shown by the R-value. Table 4.2.1 indicates that the independent factors (Perceived Communication Quality, Perceived Privacy Risk, and Trustworthiness) positively correlate with the dependent variable (Behavioural Intention to Use AI Chatbot), as indicated by the positive correlation coefficient of 0.776^{a}. Therefore, the dependent variable is also high when the independent factors are.

Based on the strength, the value of 0.776^{a}. Therefore, the dependent variable is similarly high when the independent factors are high. Based on the strength, the value of 0.776^{a} falls under the coefficient range of ±0.71 to ±0.90. Hence, there is a high positive correlation between dependent variables (Behavioural Intention to Use AI Chatbot) and independent variables (Perceived Communication Quality, Perceived Privacy Risk, and Trustworthiness).

R Square

The degree to which changes in the dependent variables can be explained by each independent component is shown by the R square. According to Table 4.2.1.1, interdependent variables (Perceived Communication Quality, Perceived Privacy Risk, Trustworthiness) can explain 66.3% of the variations in the dependent variable (Behavioural Intention to Use AI Chatbot). Yet, it remains 33.7% (100% - 63%) unexplained. In simple terms, this study took into account extra characteristics that are crucial in understanding employee retention.

Table 4.8: *ANOVA*

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	77.132	3	25.711	200.777	<.001
	Residual	50.838	397	128		
	Total	127.969	400			
a. Dependent Variable: Behavioural Intention						
b. Predictors (Constant): Trustworthiness, Perceived Communication Quality, Perceived Privacy Risk						

Note: Developed for the research

H1: There is a positive effect of independent variables (Perceived Communication Quality, Perceived Privacy Risk, Trustworthiness) on undergraduate student behavioural intention to use AI Chatbot.

Given that the alpha value (0.05) is greater than the P-value (<0.001), the null hypothesis is supported. Consequently, we endorsed and accepted the null hypothesis. The p-value (<0.001) is less than the alpha value (0.05), as demonstrated in Table 4.2.1.2. This further suggests that the F-statistic is significant, indicating that the model employed in this research accurately describes the relationship between the dependent and independent variables. Hence, employee engagement and job satisfaction does significantly explain the variance in employee retention.

Table 4.9: *Coefficients*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.4327	0.180		2.376	0.018
	Perceived Communication Quality average	0.040	0.053	0.033	0.760	0.448
	Perceived Privacy Risk average	0.255	0.049	0.243	5.181	<0.001
	Trustworthiness average	0.610	0.051	0.564	12.050	<0.001
a. Dependent Variable: Behavioural Intention Average						

Note: Developed for the research

H1: Perceived Communication Quality has a significant positive effect on behavioural intention to Use AI Chatbot.

In this research, the independent variable (Perceived Communication Quality) does not significantly positively affect the dependent variable (Behavioural Intention to Use AI Chatbot) for this research due to the p-value for Perceived Communication Quality is 0.448 which evidently more than the alpha 0.05.

H2: Perceived privacy risk has a significant negative effect on behavioural intention to use AI Chatbot.

The independent variable (Perceived Privacy Risk) does significantly negatively affect the dependent variable (Behavioural Intention to Use AI Chatbot) as the p-value for Perceived Privacy Risk is <0.001 which is clearly less than the alpha 0.05.

H3: Trustworthiness has a significant positive effect on behavioural intention to Use AI Chatbot.

Given that the p-value for trustworthiness is <0.001, which is unquestionably smaller than the alpha 0.05, the independent variable (trustworthiness) does considerably positively impact the dependent variable (behavioural intention to use an AI chatbot).

Regression equation

y = a + b1 (x1) + b2 (x2)

x1 = Independent variable 1 (Perceived Communication Quality)

x2 = Independent variable 2 (Perceived Privacy Risk)

x3 = Independent variable 3 (Trustworthiness)

Behavioural Intention to Use AI Chatbot

= 0.4327 + 0.040 (Perceived Communication Quality) + 0.255 (Perceived Privacy Risk) + 0.610 (Trustworthiness)

Highest contribution

Trustworthiness is the predictor variables that contribute the highest to the variation of the dependent variable (Behavioural Intention to Use AI Chatbot) as the Beta Value (under standardized coefficient) is 0.610, which is significantly higher than other predictor variables. This suggests that after accounting for the variation clarified through each of the model's other predictor components, trustworthiness provides a bigger unique contribution to explaining the variation in the dependent variable (Behavioural Intention to Use AI Chatbot).

Second highest contribution

From the table above, Perceived Privacy Risk is the predictor variables that contribute the second highest to the variation of the dependent variable (Behavioural Intention to Use AI Chatbot) because the Beta Value (under standardized coefficients) is 0.255, which lower than another predictor variable (Trustworthiness). This implies that the second most significant distinctive contribution to the explanation of the dependent variable's variance (Behavioural Intention to Use AI Chatbot) is made by perceived privacy risk, when the variance explained by all other predictor variables in the model is controlled for.

Lowest contribution

Perceived Communication Quality is the predictor variable that contribute lowest to the variation of the dependent variable (Behavioural Intention to Use AI Chatbot) because the Beta Value (under standardized coefficients) is the smallest of 0.040 in contrast to additional factors that predict (Trustworthiness and Perceived Privacy Risk). This means that perceived communication quality makes the least contribution to explain the variation in dependent variable (Behavioural Intention to Use AI Chatbot), when the variance explained by all other predictor variables in the model is controlled for

Recommendation

According to the result of multiple regression analysis, the independent variable (Perceived Communication Quality) is not significant positively to the dependent variable (Behavioural Intention to Use AI Chatbot) as the p-value is bigger than the alpha value (0.05). Although perceived communication quality does not significantly positively to the behavioural intention to use AI Chatbot, we would recommend that the educators to pay more attention to this variable as it is an important element in the AI chatbot.

4.3 Conclusion

There are multiple references to study findings and statistics in this chapter. This chapter covers every completed review in detail. To provide a comprehensive picture, the research data were compiled and examined using SPSS Statistics. Multiple regression analysis was used to determine the relationship between the independent variables and the dependent variable. This study's findings will be expanded upon and summarized in the upcoming chapter.

Chapter 5: Discussion and Conclusion

5.0 Introduction

Researchers have completed the descriptive and inferential analysis in Chapter 4, using the 400 respondents from the questionnaires that distribute to the target respondents. This chapter seeks to provide an overview of the entire study's analysis. Researchers will discover more in this chapter about using researchers to assist and validate study goals and hypotheses.

5.1 Summary of Statistical Analyses

5.1.1 Summary of Descriptive Analyses

We successfully completed descriptive analyses using the data from Project 1's pilot study. To ensure data accuracy, SPSS was used to create all tables and figures. Out of the three types of charts which are bar charts, pie charts, and histograms, we decided to use pie charts for each item derived from the demographic profile of the questionnaire in Chapter 4. According to our responses, Most of our respondents are Chinese, Female, aged 21 to 25, and mostly Year 2 students. Furthermore, 250 out of 400 of the respondents come from Selangor. Respondents may influence a different range of demographic variables.

5.1.2 Summary of Scale Measurement

A reliability test was conducted to analyse the dependability and consistency of dependent variables (Behavioural Intention to Use AI Chatbot) and independent variables (Perceived Communication Quality, Perceived Privacy Risk, and Trustworthiness). To guarantee the certainty of the outcome, Cronbach's alpha reliability helps to cut down on the inaccuracy of each variable. The level of reliability increases as Cronbach alpha increases. According to the findings of our study, the variable with the greatest Cronbach value is 0.892 (Trustworthiness), 0.892 (Behavioural Intention to Use AI Chatbot), 0.864 (Perceived Communication Quality), following with 0.784 (Perceived Privacy Risk).

5.1.3 Summary of Inferential Analyses

Based on multiple regression analysis, the relationship between the dependent variable (Behavioural Intention to Use AI Chatbot) and the independent variables (Perceived Communication Quality, Perceived Privacy Risk, and Trustworthiness) is highly positive. Additionally, it demonstrates that the independent variables (Perceived Communication Quality, Perceived Privacy Risk, and Trustworthiness) can account for 77.6% of the variation in the dependent variable (Behavioural Intention to Use AI Chatbot). This implies that only 22.4% of the variables remain unexplained.

Additionally, the ANOVA results suggest that both independent and dependent variables substantially account for the variation in the behavioural intention of the undergraduate student to use an AI chatbot. The independent variables' p-value (<0.001) is greater than the alpha value (0.05), suggesting that the dependent variable is substantially predicted by the independent variables in our research. Furthermore, the three independent variables, perceived privacy risk (<0.001) and trustworthiness (<0.001), both contribute significantly to the explanation of the dependent variable's variation. Conversely, perceived communication quality (0.0448) contributes less to the explanation of the dependent variable's changes.

5.2 Discussions of Major Findings

5.2.1 Perceived Communication Quality and Behavioural Intention to Use AI Chatbot

In Chapter 4, the outcome showed this independent variable does not significantly positively affect the dependent variable, due to the P-value (0.448) is greater than the alpha value (0.05), therefore between Perceived Communication Quality and Behavioural Intention to Use AI Chatbot is not significant. This is corroborated by Song et al.'s (2022) study, which found that customers value human interaction over AI chatbots. This is consistent with Zhou et al.'s (2023) finding that users value human interaction less while using AI chatbots.

5.2.2 Perceived Privacy Risk and Behavioural Intention to Use AI Chatbot

The results of this study indicate a significant correlation between the behavioural intention to use an AI chatbot and perceived privacy risk, as reported in Chapter 4. Compared to the alpha value of 0.05, the P-value (<0.001) is lower. This result is supported by Song et al. (2022) whereby the research is about whether AI can replace human customer service and it studies the relationship between perceived privacy risk and the customers' adoption intention. The outcome revealed that customers' intentions to adopt were significantly impacted by their perception of privacy risk. It also confirmed our prediction, according to which adoption intention to utilise AI chatbots is negatively correlated with perceived privacy risk.

5.2.3 Trustworthiness and Behavioural Intention to Use AI Chatbot

According to Chapter 4, the study shows a significant relationship between Trustworthiness and the Behavioural Intention to Use AI Chatbots. Compared to the alpha value of 0.05, the P-value (<0.001) is lower. This finding is corroborated by Frank et al.'s (2023) investigation, which looked at the relationship between customers' intents to use the company's AI services and how trustworthy they felt about it. The results indicate that AI weakens the positive relationship between trustworthiness and the adoption of the company to use AI services.

5.3 Implications of the Study

5.3.1 Theoretical Implication

The TAM model is expanded in this work to incorporate the specific variables of perceived communication quality, perceived privacy risk, and trustworthiness as independent variables, which influence the behavioural intention to use AI chatbots among undergraduate students.

According to the TAM, perceived usefulness is a critical factor in technology adoption. In this study, perceived communication quality can be viewed as an extension of perceived usefulness. High-quality communication with AI chatbots may be perceived as useful because it enhances the interaction experience and contributes to the overall effectiveness of the technology in achieving the user's goals. Therefore, the study hypothesised that higher perceived communication quality will positively influence students' behavioural intentions to use AI chatbots.

While TAM traditionally emphasises ease of use and usefulness, this study integrates perceived privacy risk as a crucial factor in the adoption of AI technology. Perceived privacy risk might negatively impact behavioural intentions, as concerns about data security and privacy can deter students from engaging with AI chatbots, regardless of their perceived usefulness or ease of use. This integration

provides a more nuanced understanding of technology adoption, especially in the context of AI where privacy concerns are prominent.

Besides, trustworthiness is another key variable that aligns with both perceived usefulness and ease of use in the TAM framework. When students perceive AI chatbots as trustworthy, they are more likely to believe that the technology will meet their needs effectively and reliably, which increases their behavioural intention to use it. Trustworthiness in AI can encompass aspects such as the accuracy of information provided, the reliability of the chatbot's performance, and the ethical handling of user data.

Therefore, this study suggests that the TAM can be effectively expanded to include these variables when examining the adoption of AI technologies among specific user groups, such as undergraduate students. By doing so, the study contributes to a more comprehensive understanding of the factors that influence technology adoption in contexts where communication quality, privacy concerns, and trust are paramount. This extension of the TAM framework could be applicable to other emerging technologies, providing a robust model for analysing user acceptance in the digital age.

5.3.2 Managerial Implication

The rapid advancement of artificial intelligence (AI) is ushering in a new era of education and research. AI chatbots, in particular, are poised to become integral to the educational sector, fundamentally altering how students learn and how research is conducted. As the presence of AI becomes increasingly pervasive in our daily lives, it is neither feasible nor beneficial to ignore or evade its influence. Instead, there is an urgent need to adapt academic systems to seamlessly integrate AI technologies, particularly chatbots, into educational frameworks (Kooli, 2023).

One of the key implications of this study is its potential to inform and enhance the deployment of AI chatbots in education (Okonkwo & Ade-Ibijola, 2021). By

understanding the factors that influence undergraduate students' behavioural intentions to use AI chatbots—namely, perceived communication quality, perceived privacy risk, and trustworthiness—developers and educators can design more effective and user-friendly AI chatbot. For instance, improving the quality of communication between chatbots and students, coupled with robust privacy measures, can significantly enhance trust in these systems. This, in turn, is likely to lead to higher adoption rates, as students feel more confident and secure in using AI technologies as part of their educational journey.

In conclusion, the findings of this study are not only timely but also critical for the future of education. As we move towards an era where AI and chatbots play an increasingly central role in learning and research, it is essential to adapt our academic systems to these new technologies. The implications of this study offer valuable guidance for enhancing the design, deployment, and acceptance of AI chatbots in education. By addressing key factors such as communication quality, privacy, and trustworthiness, this research paves the way for a more informed and effective use of AI in education. This, in turn, will help ensure that students are well-equipped to thrive in an AI-driven world.

5.4 Limitations of the Study

The reliability and validity of quantitative research results can be compromised by the presence of biases in measurement, which is a significant limitation. These biases can result from a variety of sources, including the design of response scales, the wording of survey questions, or the method of data collection. For instance, respondents may differ in their interpretations of queries that are inadequately phrased, which could lead to inconsistent responses. Furthermore, if the measuring tools are not carefully developed to cover the whole range of the variables under study, the findings could not really reflect the traits or beliefs of the population. These biases can distort the results, resulting in conclusions that may not be generalisable or representative of the actual situation.

The depth and richness of the data collected can be restricted by the reliance on closed-ended queries, which is another limitation of quantitative research. Closed-ended queries offer respondents a restricted selection of predetermined response options, which may not accurately reflect their genuine thoughts or experiences. This method has the potential to oversimplify intricate issues, resulting in respondents being compelled to choose an option that may not accurately represent their opinions. Consequently, the nuances of respondents' perspectives may not be adequately represented, and valuable insights may be overlooked. Additionally, the absence of an opportunity for respondents to provide additional information about their responses hinders researchers from acquiring a more comprehensive comprehension of the underlying reasons for specific responses, thereby restricting the study's overall interpretive power.

5.5 Recommendations for the Future Research

To mitigate biases in measurement, researchers should meticulously construct their survey instruments and guarantee that the formulation of questions is neutral, explicit, and devoid of leading language that could potentially influence respondents' responses. Additionally, it is crucial to guarantee that the respondents selected are representative of the population under investigation and are specifically aligned with the study's objectives. The accuracy of the responses can be enhanced by focussing on specific respondents who possess pertinent knowledge or experience with the subject matter. This approach reduces the influence of measurement biases and guarantees that the findings are more generalisable and reliable.

Furthermore, in order to overcome the constraints imposed by closed-ended questions, researchers should contemplate the integration of open-ended questions or follow-up qualitative methods, such as focus groups or interviews, into their research design. This mixed-methods approach enables the accumulation of more detailed, richer data, enabling respondents to articulate their views more completely and share insights that may not be captured by predefined answer choices.

Furthermore, researchers may incorporate a "Other" option with a prompt for additional explanation in closed-ended enquiries, allowing respondents to provide more complex responses. These strategies have the potential to produce more significant results and facilitate a more thorough comprehension of the research topic.

5.6 Conclusion

In conclusion, all findings in this research topic were discussed comprehensively and the results reflected that the variables which are perceived privacy risk and trustworthiness are having significance relationships while perceived communication quality do not have significance relationship to behavioural intention of undergraduate students to use AI chatbots. Researchers summarise scale measurement, descriptive, and inferential data. The link between independent and dependent variables has been extensively examined and ramifications debated, with journal publications providing explanations. Besides, limitations and recommendations are also suggested to improve the quality and standard of the future research.

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APPENDICES

Appendix 1: Questionnaire (English Version)

Wholly owned by UTAR Education Foundation
(Co. No. 578227-M)
DU012(A)

UNIVERSITI TUNKU ABDUL RAHMAN
Faculty of Business and Finance

TOPIC: Examining the Determinants and Perceptions of Undergraduate Students in The Use Artificial Intelligence (AI) Chatbot

Dear Respondents,
We are final-year undergraduate students who are currently pursuing the Bachelor of Business Administration (Hons) from University Tunku Abdul Rahman (UTAR). We are conducting a research project to achieve an in-depth understanding of the factors that affect the students' intention to use AI.

There are **FIVE (5) sections** in this survey. Section A is on demographics. Section B, C, D, and E cover all of the variables in this study. Please read the instructions carefully before answering the questions. **Please answer ALL sections.** Completion of this questionnaire will take you approximately 5 minutes. There will be no risk involved in your participation in this survey.

Your participation in this study is entirely voluntary. There will be no disadvantage if you decide not to complete the attached anonymous questionnaire. You can withdraw at any time without any penalty. You can refuse to answer any question at any time if you feel uncomfortable.

Your personal particular will remain anonymous and will be treated as strictly confidential. The data collected is only used for the purpose of this academic research and only aggregated data will be used in this study.

Your assistance in completing the questionnaire is very much appreciated. Thank you for your participation. If you have any questions regarding this questionnaire, you may contact us at yjseow02@1utar.my.

If you decide to complete this attached anonymous survey, this will be taken as your voluntary agreement and formal consent to participate in this study. Thank you very much for your cooperation and willingness to participate in this study.

Thank you.

Your Sincerely,
Seow Yin Jeh (yjseow02@1utar.my)
Kheow Kar Lin (lanakarlin0817@1utar.my)

PERSONAL DATA PROTECTION NOTICE

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

   a) Name
   b) Identity card
   c) Place of Birth
   d) Address
   e) Education History
   f) Employment History
   g) Medical History
   h) Blood type
   i) Race
   j) Religion
   k) Photo
   l) Personal Information and Associated Research Data

2. The purpose for which your personal data may be used are inclusive but not limited to:

   a) For assessment of any application to UTAR
   b) For processing any benefits and services
   c) For communication purposes
   d) For advertorial and news
   e) For general administration and record purposes
   f) For enhancing the value of education
   g) For educational and related purposes consequential to UTAR
   h) For replying any responds to complaints and enquiries
   i) For the purpose of our corporate governance
   j) For the purposes of conducting research/ collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

8. You may access and update your personal data by writing to us at yjseow02@1utar.my.

Acknowledgment of Notice

[ ] I have been notified and that I hereby understood, consented and agreed per UTAR above notice.
[ ] I disagree, my personal data will not be processed.

SCREENING QUESTIONS

1. Are you currently pursuing an undergraduate program (Bachelor's Degree)?
    a. Yes (Please continue)
    b. No (End of the survey, thank you)

2. Have you ever used AI-based tools or applications for your study?
    a. Yes (Please continue)
    b. No (End of the survey, thank you)

3. Is the institution that you are currently studying located in any of these three states (Selangor, Kuala Lumpur, and Perak)?
    a. Yes (Please continue)
    b. No (End of the survey, thank you)

DEMOGRAPHIC PROFILE

Please choose one for each of the following:

1. Gender
    a. Male
    b. Female

2. Age
    a. 18-20 years old
    b. 21-25 years old
    c. 26-30 years old
    d. 31 years old and above

3. Ethnic group
    a. Malay
    b. Chinese
    c. Indian
    d. Other

4. The institution that you are currently studying at is located in
    a. Selangor
    b. Kuala Lumpur
    c. Perak

5. What is your current year of study?
    a. Year 1
    b. Year 2
    c. Year 3
    d. Year 4

6. AI Chatbot that you are currently used for your study (Select all the applies)

a. ChatGPT
b. Jenni AI
c. MathMinds AI
d. Bing Chat
e. Google Bard
f. Others, Please specify_____

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly agree

PERCEIVED COMMUNICATION QUALITY

The following questions reflect students' perception of the AI's communication quality. Perceived communication quality refers to how individuals assess the effectiveness and satisfaction of their interactions with an AI system. Your responses will help us understand the AI's communication quality among students' perceptions.

	Dimension	Questions	1	2	3	4	5
a	Accuracy	1. I feel the AI system responds to me timely. 2. I feel the AI system responds to me accurately. 3. I feel the AI system responds to me completely.					
b	Credibility	1. I feel the AI system responds to me sincerely. 2. I feel the AI system responds to me reliably.					
c	Openness	1. I can easily have free communication with the AI system. 2. I can express what I want to express with the AI system. 3. I can easily understand the response from the AI system.					

d	Attraction	1. I feel the AI system is very user friendly. 2. I want to continue interacting with the AI system. 3. I can make the right decisions based on my interaction with the AI system. 4. I don't think the AI system can solve the problem well.					
e	Communication Capability	1. I feel the AI system can deal with complex problems more efficiently than offline teaching methods. 2. I feel the AI system can deal with complex problems more efficiently than other educational approaches. 3. I feel the AI system has saved me a lot of time in making decisions.					

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly agree

PERCEIVED PRIVACY RISK

The following questions aim to assess students' perception of the privacy risks linked to using AI technology. Perceived privacy risk refers to individuals' understanding of potential threats to their privacy when engaging with or employing AI technologies. Your responses will help us understand students' concerns about privacy and AI usage.

	Dimension	Questions	1	2	3	4	5
a	Privacy Perception	1. I think of privacy as a right that I can control and use. 2. I think controlling privacy is very important to me. 3. I think it's very important to know how my personal information is being used. 4. When an online learning platform asks me to provide personal information, I need to weigh the risk.					
b	Risk Perception	1. I think there are risks in using online learning. 2. I think the use of online learning increases the risk of personal privacy breaches. 3. I am concerned about privacy breaches due to an attack on the online learning platform.					

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly agree

TRUSTWORTHINESS

This questionnaire aims to assess students' perception of trustworthiness in the usage of AI systems. Trustworthiness refers to the confidence and reliability you place in the technology's ability to perform as intended, provide accurate

information, and safeguard your privacy and data. Your feedback will help us understand students' level of trust and confidence in AI systems.

	Dimension	Questions	1	2	3	4	5
a	Worthy of trust of confidence; reliable, dependable.	1. I trust people are safe when interacting with AI systems. 2. I trust AI systems will deliver the best services. 3. I trust AI systems will recommend the best services based on my needs and demands. 4. I trust AI systems will offer more efficient services than human beings. 5. I trust AI systems will offer a modern look to service firms.					
b	Functional trust	1. I think AI systems work well. 2. I think AI systems have the features necessary to complete key tasks. 3. I think AI systems are competent in their area of expertise. 4. I think AI systems are reliable. 5. I think AI systems are dependable.					

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly agree

BEHAVIOURAL INTENTION

This questionnaire aims to assess students' inclination or readiness to use an AI system. Behavioural intention to use an AI system refers to your willingness or likelihood of engaging with the technology based on your perceptions, attitudes, and beliefs. Your responses will help us understand students' intentions regarding the adoption and utilization of AI systems.

	Dimension	Questions	1	2	3	4	5
a	Users	1. I intend to continue using AI systems. 2. I predict that I will continue using AI systems. 3. I would continue to use AI systems.					
b	The information or beliefs people possess about the behaviour under consideration.	1. I will continue to acquire AI-related information. 2. I will keep myself updated with the latest AI application. 3. I intend to use AI to assist with my learning. 4. I will continue to learn AI.					

Appendix 2: Questionnaire (Malay Version)

Wholly owned by UTAR Education Foundation
(Co. No. 578227-M)
DU012(A)

UNIVERSITI TUNKU ABDUL RAHMAN
Faculty of Business and Finance

TOPIK: Mengakaji Penentu dan Persepsi Pelajar Sarjana Muda Dalam Penggunaan Chatbot Kecerdasan Buatan (AI)

Responden yang dihormati,
Kami adalah pelajar sarjana muda tahun akhir yang sedang mengikuti pengajian Ijazah Sarjana Muda Pentadbiran Perniagaan (Kepujian) dari Universiti Tunku Abdul Rahman (UTAR). Kami sedang menjalankan projek penyelidikan untuk mencapai pemahaman yang mendalam tentang faktor-faktor yang mempengaruhi niat pelajar untuk menggunakan AI.

Terdapat **LIMA (5) bahagian** dalam tinjauan ini. Bahagian A adalah mengenai demografi. Bahagian B, C, D, dan E merangkumi semua pembolehubah dalam kajian ini. Sila baca arahan dengan teliti sebelum menjawab soalan. **Sila jawab SEMUA bahagian**. Pengisian soal selidik ini akan mengambil masa lebih kurang 5 minit. Tiada risiko terlibat dalam penyertaan anda dalam tinjauan ini.

Penyertaan anda dalam kajian ini adalah secara sukarela. Ia tidak akan ada kelemahan jika anda memutuskan untuk tidak melengkapkan soal selidik tanpa nama yang dilampirkan. Anda boleh menarik diri pada bila-bila masa tanpa sebarang penalti. Anda boleh menolak untuk menjawab sebarang soalan pada bila-bila masa jika anda berasa tidak selesa.

Butiran peribadi anda akan kekal tanpa nama dan akan dianggap sebagai sulit. Data yang dikumpul hanya digunakan untuk tujuan kajian akademik ini dan hanya data agregat sahaja yang akan digunakan dalam kajian ini.

Bantuan anda dalam melengkapkan soal selidik amat kami hargai. Terima kasih atas penyertaan anda. Jika anda mempunyai sebarang soalan mengenai soal selidik ini, anda boleh menghubungi kami di yjseow02@1utar.my.

Jika anda memutuskan untuk melengkapkan tinjauan tanpa nama yang dilampirkan ini, ini akan dianggap sebagai persetujuan sukarela dan persetujuan rasmi anda untuk mengambil bahagian dalam kajian ini. Kerjasama dan kesudian anda mengambil bahagian dalam kajian ini diucapkan ribuan terima kasih.

Yang ikhlas,
Seow Yin Jeh (yjseow02@1utar.my)
Kheow Kar Lin (lanakarlin0817@1utar.my)

NOTIS PERLINDUNGAN DATA PERIBADI

Adalah dimaklumkan bahawa menurut Akta Perlindungan Data Peribadi 2010 ("PDPA") yang berkuat kuasa pada 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") dengan ini terikat untuk membuat notis dan memerlukan persetujuan berhubung dengan pengumpulan, rakaman , penyimpanan, penggunaan dan penyimpanan maklumat peribadi.

1. Data peribadi merujuk kepada sebarang maklumat yang mungkin secara langsung atau tidak langsung mengenal pasti seseorang yang boleh termasuk data peribadi sensitif dan luahan pendapat. Antara lain ia termasuk:

a) Nama
b) Kad pengenalan
c) Tempat Lahir
d) Alamat
e) Sejarah Pendidikan
f) Sejarah Pekerjaan
g) Sejarah Perubatan
h) Jenis darah
i) Bangsa
j) Keagamaan
k) Gambar
l) Maklumat Peribadi dan Data Penyelidikan Berkaitan

2. Tujuan data peribadi anda boleh digunakan adalah termasuk tetapi tidak terhad kepada:

a) Untuk penilaian sebarang permohonan kepada UTAR
b) Untuk memproses sebarang faedah dan perkhidmatan
c) Untuk tujuan komunikasi
d) Untuk advertorial dan berita
e) Untuk tujuan pentadbiran am dan rekod
f) Untuk meningkatkan nilai pendidikan
g) Untuk tujuan pendidikan dan yang berkaitan dengan UTAR
h) Untuk menjawab sebarang maklum balas kepada aduan dan pertanyaan
i) Untuk tujuan tadbir urus korporat kami
j) Bagi tujuan menjalankan penyelidikan/kerjasama

Data peribadi anda mungkin dipindahkan dan/atau didedahkan kepada pihak ketiga dan/atau rakan kerjasama UTAR termasuk tetapi tidak terhad kepada ejen penyumberan luar masing-masing dan dilantik untuk tujuan memenuhi kewajipan kami kepada anda berkenaan dengan tujuan dan semua tujuan lain yang berkaitan dengan tujuan dan juga dalam menyediakan perkhidmatan bersepadu, menyelenggara dan menyimpan rekod. Data anda mungkin dikongsi apabila dikehendaki oleh undang-undang dan apabila pendedahan diperlukan untuk mematuhi undang-undang yang berkenaan.

4. Sebarang maklumat peribadi yang disimpan oleh UTAR akan dimusnahkan dan/atau dipadamkan mengikut dasar pengekalan kami yang terpakai untuk kami sekiranya maklumat tersebut tidak diperlukan lagi.

5. UTAR komited dalam memastikan kerahsiaan, perlindungan, keselamatan dan ketepatan maklumat peribadi anda disediakan kepada kami dan menjadi dasar ketat kami yang berterusan untuk memastikan maklumat peribadi anda adalah tepat, lengkap, tidak mengelirukan dan dikemas kini. UTAR juga akan memastikan bahawa data peribadi anda tidak akan digunakan untuk tujuan politik dan komersial.

Keizinan:

6. Dengan menyerahkan atau memberikan data peribadi anda kepada UTAR, anda telah bersetuju dan bersetuju untuk data peribadi anda digunakan menurut terma dan syarat dalam Notis dan dasar kami yang berkaitan.

7. Jika anda tidak bersetuju atau kemudiannya menarik balik persetujuan anda terhadap pemprosesan dan pendedahan data peribadi anda, UTAR tidak akan dapat memenuhi kewajipan kami atau menghubungi anda atau untuk membantu anda berkenaan dengan tujuan dan/atau untuk mana-mana yang lain. tujuan yang berkaitan dengan tujuan.

8. Anda boleh mengakses dan mengemas kini data peribadi anda dengan menulis kepada kami di yjseow02@1utar.my.

Pengakuan Notis

[ ] Saya telah dimaklumkan dan bahawa saya dengan ini memahami, bersetuju dan bersetuju mengikut notis UTAR di atas.
[ ] Saya tidak bersetuju, data peribadi saya tidak akan diproses.

SOALAN SARINGAN

1. Adakah anda sedang mengikuti program sarjana muda (Ijazah Sarjana Muda)?
    a. Ya (Sila teruskan)
    b. Tidak (Tamat tinjauan, terima kasih)

2. Pernahkah anda menggunakan alatan atau aplikasi berasaskan AI untuk kajian anda?
    a. Ya (Sila teruskan)
    b. Tidak (Tamat tinjauan, terima kasih)

3. Adakah institusi yang anda sedang belajar berada di mana-mana tiga negeri ini (Selangor, Kuala Lumpur, dan Perak)?
    a. Ya (Sila teruskan)
    b. Tidak (Tamat tinjauan, terima kasih)

PROFIL DEMOGRAFI

Sila pilih satu untuk setiap yang berikut:

1. Jantina
    a. Lelaki
    b. Perempuan

2. Umur
    a. 18-20 tahun
    b. 21-25 tahun
    c. 26-30 tahun
    d. 31 tahun ke atas

3. Kumpulan etnik
    a. Melayu
    b. Cina
    c. India
    d. Lain-lain

4. Institusi yang anda sedang belajar berada di
    a. Selangor
    b. Kuala Lumpur
    c. Perak

5. Apakah tahun pengajian anda sekarang?
    a. Tahun 1
    b. Tahun 2
    c. Tahun 3
    d. Tahun 4

6. AI Chatbot yang sedang anda gunakan untuk kajian anda (Pilih semua yang berkenaan)
    a. ChatGPT
    b. Jenni AI

c. MathMinds AI
d. Bing Chat
e. Google Bard
f. Lain-lain, Sila nyatakan_____

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

KUALITI KOMUNIKASI YANG DIPERCEIFKAN

Soalan berikut menggambarkan persepsi pelajar terhadap kualiti komunikasi AI. Kualiti komunikasi yang dirasakan merujuk kepada cara individu menilai keberkesanan dan kepuasan interaksi mereka dengan sistem AI. Respons anda akan membantu kami memahami kualiti komunikasi AI dalam kalangan persepsi pelajar.

	Dimensi	Soalan	1	2	3	4	5
a	Ketepatan	1. Saya rasa sistem AI bertindak balas kepada saya tepat pada masanya. 2. Saya rasa sistem AI bertindak balas kepada saya dengan tepat. 3. Saya rasa sistem AI bertindak balas kepada saya sepenuhnya.					
b	Credibility	1. Saya rasa sistem AI bertindak balas kepada saya dengan ikhlas. 2. Saya rasa sistem AI bertindak balas kepada saya dengan boleh dipercayai.					
c	Keterbukaan	1. Saya boleh berkomunikasi secara bebas dengan sistem AI dengan mudah. 2. Saya boleh menyatakan apa yang saya ingin nyatakan dengan sistem AI. 3. Saya mudah memahami tindak balas daripada sistem AI.					

d	Tarikan	1. Saya rasa sistem AI sangat mesra pengguna. 2. Saya mahu terus berinteraksi dengan sistem AI. 3. Saya boleh membuat keputusan yang betul berdasarkan interaksi saya dengan sistem AI. 4. Saya tidak fikir sistem AI dapat menyelesaikan masalah dengan baik.					
e	Keupayaan Komunikasi	1. Saya merasakan sistem AI boleh menangani masalah yang kompleks dengan lebih cekap daripada kaedah pengajaran luar talian. 2. Saya merasakan sistem AI boleh menangani masalah yang kompleks dengan lebih cekap daripada pendekatan pendidikan yang lain. 3. Saya rasa sistem AI telah menjimatkan banyak masa saya dalam membuat keputusan.					

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

RISIKO PRIVASI YANG DIPERCEIFKAN

Soalan berikut bertujuan untuk menilai persepsi pelajar tentang risiko privasi yang dikaitkan dengan penggunaan teknologi AI. Risiko privasi yang dirasakan merujuk kepada pemahaman individu tentang potensi ancaman terhadap privasi mereka apabila terlibat dengan atau menggunakan teknologi AI. Respons anda akan membantu kami memahami kebimbangan pelajar tentang privasi dan penggunaan AI.

	Dimensi	Soalan	1	2	3	4	5
a	Persepsi Privasi	1. Saya menganggap privasi sebagai hak yang boleh saya kawal dan gunakan. 2. Mengawal privasi adalah sangat penting bagi saya. 3. Saya rasa amat penting untuk mengetahui cara maklumat peribadi saya digunakan. 4. Apabila platform pembelajaran dalam talian meminta saya memberikan maklumat peribadi, saya perlu menimbang risikonya.					
b	Persepsi Risiko	1. Saya berpendapat terdapat risiko dalam menggunakan pembelajaran dalam talian. 2. Saya fikir penggunaan pembelajaran dalam talian meningkatkan risiko pelanggaran privasi peribadi. 3. Saya bimbang tentang pelanggaran privasi akibat serangan terhadap platform pembelajaran dalam talian					

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

KEBOLEHPERCAYAAN

Soal selidik ini bertujuan untuk menilai persepsi pelajar tentang kebolehpercayaan dalam penggunaan sistem AI. Kebolehpercayaan merujuk kepada keyakinan dan kebolehpercayaan yang anda letakkan dalam keupayaan teknologi untuk melaksanakan seperti yang dimaksudkan, memberikan maklumat yang tepat dan melindungi privasi dan data anda. Maklum balas anda akan membantu kami memahami tahap kepercayaan dan keyakinan pelajar terhadap sistem AI.

	Dimensi	Soalan	1	2	3	4	5
a	Layak untuk dipercayai dengan keyakinan; boleh diandalkan, boleh dipercayai.	1. Saya percaya orang selamat semasa berinteraksi dengan sistem AI. 2. Saya percaya sistem AI akan memberikan perkhidmatan yang terbaik. 3. Saya percaya sistem AI akan mengesyorkan perkhidmatan terbaik berdasarkan keperluan dan permintaan saya. 4. Saya percaya sistem AI akan menawarkan perkhidmatan yang lebih cekap daripada manusia. 5. Saya percaya sistem AI akan menawarkan rupa moden kepada firma perkhidmatan.					
b	Kepercayaan fungsional	1. Sistem AI berfungsi dengan baik. 2. Sistem AI mempunyai ciri yang diperlukan untuk menyelesaikan tugas utama.					

		3. Sistem AI adalah cekap dalam bidang kepakaran mereka. 4. Sistem AI boleh dipercayai. 5. Sistem AI boleh diandalkan.					

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

NIAT TINGKAH LAKU

Soal selidik ini bertujuan untuk menilai kecenderungan atau kesediaan pelajar untuk menggunakan sistem AI. Niat tingkah laku untuk menggunakan sistem AI merujuk kepada kesediaan atau kemungkinan anda terlibat dengan teknologi berdasarkan persepsi, sikap dan kepercayaan anda. Respons anda akan membantu kami memahami hasrat pelajar berkenaan penggunaan dan penggunaan sistem AI.

	Dimensi	Soalan	1	2	3	4	5
a	Pengguna	1. Saya berhasrat untuk terus menggunakan sistem AI. 2. Saya meramalkan bahawa saya akan terus menggunakan sistem AI. 3. Menggunakan sistem AI adalah sesuatu yang saya akan terus lakukan.					
b	Maklumat atau kepercayaan yang dimiliki oleh	1. Saya akan terus memperoleh maklumat yang berkaitan dengan AI.					

	orang tentang tingkah laku yang sedang dipertimbangkan.	2. Saya akan memastikan diri saya dikemas kini dengan aplikasi AI terkini. 3. Saya berhasrat untuk menggunakan AI untuk membantu pembelajaran saya. 4. Saya akan terus belajar AI.					

Appendix 3: Blank Copy Questionnaire (English Version)

Link:

https://docs.google.com/forms/d/e/1FAIpQLSfcGi_ulwR-uTHcICAvgv0t777PPoL3FKaAAysrc-VQhSMzmg/viewform

Examining The Determinants and Perceptions of Undergraduate Students in The Use of Artificial Intelligence (AI) Chatbot

Dear Respondents,

We are final-year undergraduate students who are currently pursuing the Bachelor of Business Administration (Hons) from University Tunku Abdul Rahman (UTAR). We are conducting a research project to achieve an in-depth understanding of the factors that affect the students' intention to use AI Chatbot.

There are **FIVE (5) sections** in this survey. Section A is on demographics. Section B, C, D, and E cover all of the variables in this study. Please read the instructions carefully before answering the questions. **Please answer ALL sections.** Completion of this questionnaire will take you approximately 5 minutes. There will be no risk involved in your participation in this survey.

Your participation in this study is entirely voluntary. There will be no disadvantage if you decide not to complete the attached anonymous questionnaire. You can withdraw at any time without any penalty. You can refuse to answer any question at any time if you feel uncomfortable.

Your personal particular will remain anonymous and will be treated as strictly confidential. The data collected is only used for the purpose of this academic research and only aggregated data will be used in this study.

Your assistance in completing the questionnaire is very much appreciated. Thank you for your participation. If you have any questions regarding this questionnaire, you may contact us at yjseow02@1utar.my.

If you decide to complete this attached anonymous survey, this will be taken as your voluntary agreement and formal consent to participate in this study. Thank you very much for your cooperation and willingness to participate in this study.

Thank you.

Your Sincerely,

Seow Yin Jeh (yjseow02@1utar.my)
Kheow Kar Lin (lanakarlin0817@1utar.my)

Personal Data Protection Notice

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

a) Name
b) Identity card
c) Place of Birth
d) Address
e) Education History
f) Employment History
g) Medical History
h) Blood type
i) Race
j) Religion
k) Photo
l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

a) For assessment of any application to UTAR
b) For processing any benefits and services
c) For communication purposes
d) For advertorial and news
e) For general administration and record purposes
f) For enhancing the value of education
g) For educational and related purposes consequential to UTAR
h) For replying any responds to complaints and enquiries
i) For the purpose of our corporate governance
j) For the purposes of conducting research/ collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

8. You may access and update your personal data by writing to us at yjseow02@1utar.my.

Acknowledgment of Notice *

- ◯ I have been notified and that I hereby understood, consented and agreed per UTAR above notice.
- ◯ I disagree, my personal data will not be processed.

Screening Question

Please choose one for each of the following.

Are you currently pursuing an undergraduate program (Bachelor's Degree)? *

- ◯ Yes (Please Continue)
- ◯ No (End of the survey, Thank You)

Do you have prior knowledge or experience with AI technology? *

- ◯ Yes (Please Continue)
- ◯ No (End of the survey, Thank You)

Is the institution that you are currently studying located in any of these three states (Selangor, Kuala Lumpur and Perak)? *

- ◯ Yes (Please Continue)
- ◯ No (End of the survey, Thank You)

Section A: Demographic Profile

Please choose one for each of the following:

Gender *

- ◯ Male
- ◯ Female

Age *

- ◯ 18 - 20 years old
- ◯ 21 - 25 years old
- ◯ 26 - 30 years old
- ◯ 31 years old and above

Ethnic Group *

- ◯ Malay
- ◯ Chinese
- ◯ Indian
- ◯ Other

The institution that you are currently studying at is located in *

- ◯ Selangor
- ◯ Kuala Lumpur
- ◯ Perak

What is your current year of study? *

- ◯ Year 1
- ◯ Year 2
- ◯ Year 3
- ◯ Year 4

AI Chatbot that you currently used for your study (Select all that applies) *

- ☐ ChatGPT
- ☐ Jenni AI
- ☐ MathMinds AI
- ☐ Bing Chat
- ☐ Google Bard
- ☐ Other: _____

Section B: Perceived Communication Quality

The following questions reflect students' perception of the AI's communication quality. Perceived communication quality refers to how individuals assess the effectiveness and satisfaction of their interactions with an AI system. Your responses will help us understand the AI's communication quality among students' perceptions.

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

I feel the AI system responds to me timely. *

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

I feel the AI system responds to me accurately. *

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

I feel the AI system responds to me completely. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system responds to me sincerely. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system responds to me reliably. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I can easily have free communication with the AI system. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I can express what I want to express with the AI system. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I can easily understand the response from the AI system. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system is very user friendly. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I want to continue interacting with the AI system. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I can make the right decisions based on my interaction with the AI system. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I don't think the AI system can solve the problem well. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system can deal with complex problems more efficiently than offline teaching methods. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system can deal with complex problems more efficiently than other educational approaches. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I feel the AI system has saved me a lot of time in making decisions. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Section C: Perceived Privacy Risk

The following questions aim to assess students' perception of the privacy risks linked to using AI technology. Perceived privacy risk refers to individuals' understanding of potential threats to their privacy when engaging with or employing AI technologies. Your responses will help us understand students' concerns about privacy and AI usage.

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

I think of privacy as a right that I can control and use. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think controlling privacy is very important to me. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think it's very important to know how my personal information is being used. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

When an online learning platform asks me to provide personal information, I need to weigh the risk. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think there are risks in using online learning. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think the use of online learning increases the risk of personal privacy breaches. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I am concerned about privacy breaches due to an attack on the online learning platform. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Section D: Trustworthiness

This questionnaire aims to assess students' perception of trustworthiness in the usage of AI systems. Trustworthiness refers to the confidence and reliability you place in the technology's ability to perform as intended, provide accurate information, and safeguard your privacy and data. Your feedback will help us understand students' level of trust and confidence in AI systems.

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

I trust people are safe when interacting with AI systems. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I trust AI systems will deliver the best services. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I trust AI systems will recommend the best services based on my needs and demands. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I trust AI systems will offer more efficient services than human beings. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I trust AI systems will offer a modern look to service firms. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think AI systems work well. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think AI systems have the features necessary to complete key tasks. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think AI systems are competent in their area of expertise. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think AI systems are reliable. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I think AI systems are dependable. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Section E: Behavioral Intention

This questionnaire aims to assess students' inclination or readiness to use an AI system. Behavioral intention to use an AI system refers to your willingness or likelihood of engaging with the technology based on your perceptions, attitudes, and beliefs. Your responses will help us understand students' intentions regarding the adoption and utilization of AI systems.

Based on your learning experience, please indicate your degree of agreement or disagreement on the statements provided below by checking the appropriate response which corresponds to your answer.

Level of agreement:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

I intend to continue using AI systems. *

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

I predict that I will continue using AI systems. *

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

I would continue to use AI systems. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I will continue to acquire AI-related information. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I will keep myself updated with the latest AI application. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I intend to use AI to assist with my learning. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

I will continue to learn AI. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Appendix 4: Blank Copy Questionnaire (Malay Version)

Link: https://docs.google.com/forms/d/e/1FAIpQLSdBlNs57MMc-8dghNWkE5nqVjHoqbP-dU74WEp3k_FKGU2tKg/viewform?usp=sf_link

Mengakaji Penentu dan Persepsi Pelajar Sarjana Muda Dalam Penggunaan Chatbot Kecerdasan Buatan (AI)

Responden yang dihormati,

Kami adalah pelajar sarjana muda tahun akhir yang sedang mengikuti pengajian Ijazah Sarjana Muda Pentadbiran Perniagaan (Kepujian) dari Universiti Tunku Abdul Rahman (UTAR). Kami sedang menjalankan projek penyelidikan untuk mencapai pemahaman yang mendalam tentang faktor-faktor yang mempengaruhi niat pelajar untuk menggunakan AI.

Terdapat **LIMA (5) bahagian** dalam tinjauan ini. Bahagian A adalah mengenai demografi. Bahagian B, C, D, dan E merangkumi semua pembolehubah dalam kajian ini. Sila baca arahan dengan teliti sebelum menjawab soalan. **Sila jawab SEMUA bahagian**. Pengisian soal selidik ini akan mengambil masa lebih kurang 5 minit. Tiada risiko terlibat dalam penyertaan anda dalam tinjauan ini.

Penyertaan anda dalam kajian ini adalah secara sukarela. Ia tidak akan ada kelemahan jika anda memutuskan untuk tidak melengkapkan soal selidik tanpa nama yang dilampirkan. Anda boleh menarik diri pada bila-bila masa tanpa sebarang penalti. Anda boleh menolak untuk menjawab sebarang soalan pada bila-bila masa jika anda berasa tidak selesa.

Butiran peribadi anda akan kekal tanpa nama dan akan dianggap sebagai sulit. Data yang dikumpul hanya digunakan untuk tujuan kajian akademik ini dan hanya data agregat sahaja yang akan digunakan dalam kajian ini.

Bantuan anda dalam melengkapkan soal selidik amat kami hargai. Terima kasih atas penyertaan anda. Jika anda mempunyai sebarang soalan mengenai soal selidik ini, anda boleh menghubungi kami di yjseow02@1utar.my.

Jika anda memutuskan untuk melengkapkan tinjauan tanpa nama yang dilampirkan ini, ini akan dianggap sebagai persetujuan sukarela dan persetujuan rasmi anda untuk mengambil bahagian dalam kajian ini. Kerjasama dan kesudian anda mengambil bahagian dalam kajian ini diucapkan ribuan terima kasih.

Yang ikhlas,

Seow Yin Jeh (yjseow02@1utar.my)

Kheow Kar Lin (lanakarlin0817@1utar.my)

NOTIS PERLINDUNGAN DATA PERIBADI

Adalah dimaklumkan bahawa menurut Akta Perlindungan Data Peribadi 2010 ("PDPA") yang berkuat kuasa pada 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") dengan ini terikat untuk membuat notis dan memerlukan persetujuan berhubung dengan pengumpulan, rakaman , penyimpanan, penggunaan dan penyimpanan maklumat peribadi.

1. Data peribadi merujuk kepada sebarang maklumat yang mungkin secara langsung atau tidak langsung mengenal pasti seseorang yang boleh termasuk data peribadi sensitif dan luahan pendapat. Antara lain ia termasuk:

a) Nama

b) Kad pengenalan

c) Tempat Lahir

d) Alamat

e) Sejarah Pendidikan

f) Sejarah Pekerjaan

g) Sejarah Perubatan

h) Jenis darah

i) Bangsa

j) Keagamaan

k) Gambar

l) Maklumat Peribadi dan Data Penyelidikan Berkaitan

2. Tujuan data peribadi anda boleh digunakan adalah termasuk tetapi tidak terhad kepada:

a) Untuk penilaian sebarang permohonan kepada UTAR

b) Untuk memproses sebarang faedah dan perkhidmatan

c) Untuk tujuan komunikasi

d) Untuk advertorial dan berita

e) Untuk tujuan pentadbiran am dan rekod

f) Untuk meningkatkan nilai pendidikan

g) Untuk tujuan pendidikan dan yang berkaitan dengan UTAR

h) Untuk menjawab sebarang maklum balas kepada aduan dan pertanyaan

i) Untuk tujuan tadbir urus korporat kami

j) Bagi tujuan menjalankan penyelidikan/kerjasama

3. Data peribadi anda mungkin dipindahkan dan/atau didedahkan kepada pihak ketiga dan/atau rakan kerjasama UTAR termasuk tetapi tidak terhad kepada ejen penyumberan luar masing-masing dan dilantik untuk tujuan memenuhi kewajipan kami kepada anda berkenaan dengan tujuan dan semua tujuan lain yang berkaitan dengan tujuan dan juga dalam menyediakan perkhidmatan bersepadu, menyelenggara dan menyimpan rekod. Data anda mungkin dikongsi apabila dikehendaki oleh undang-undang dan apabila pendedahan diperlukan untuk mematuhi undang-undang yang berkenaan.

4. Sebarang maklumat peribadi yang disimpan oleh UTAR akan dimusnahkan dan/atau dipadamkan mengikut dasar pengekalan kami yang terpakai untuk kami sekiranya maklumat tersebut tidak diperlukan lagi.

5. UTAR komited dalam memastikan kerahsiaan, perlindungan, keselamatan dan ketepatan maklumat peribadi anda disediakan kepada kami dan menjadi dasar ketat kami yang berterusan untuk memastikan maklumat peribadi anda adalah tepat, lengkap, tidak mengelirukan dan dikemas kini. UTAR juga akan memastikan bahawa data peribadi anda tidak akan digunakan untuk tujuan politik dan komersial.

Keizinan:

6. Dengan menyerahkan atau memberikan data peribadi anda kepada UTAR, anda telah bersetuju dan bersetuju untuk data peribadi anda digunakan menurut terma dan syarat dalam Notis dan dasar kami yang berkaitan.

7. Jika anda tidak bersetuju atau kemudiannya menarik balik persetujuan anda terhadap pemprosesan dan pendedahan data peribadi anda, UTAR tidak akan dapat memenuhi kewajipan kami atau menghubungi anda atau untuk membantu anda berkenaan dengan tujuan dan/atau untuk mana-mana yang lain. tujuan yang berkaitan dengan tujuan.

8. Anda boleh mengakses dan mengemas kini data peribadi anda dengan menulis kepada kami di yjseow02@1utar.my.

Pengakuan Notis *

- ◯ Saya telah dimaklumkan dan bahawa saya dengan ini memahami, bersetuju dan bersetuju mengikut notis UTAR di atas.
- ◯ Saya tidak bersetuju, data peribadi saya tidak akan diproses.

SOALAN SARINGAN

Sila pilih satu untuk setiap yang berikut.

Adakah anda sedang mengikuti program sarjana muda (Ijazah Sarjana Muda)? *

- ◯ Ya (Sila teruskan)
- ◯ Tidak (Tamat tinjauan, terima kasih)

Pernahkah anda menggunakan alatan atau aplikasi berasaskan AI untuk kajian anda? *

- ◯ Ya (Sila teruskan)
- ◯ Tidak (Tamat tinjauan, terima kasih)

Adakah institusi yang anda sedang belajar berada di mana-mana tiga negeri ini (Selangor, Kuala Lumpur, dan Perak)? *

- ◯ Ya (Sila teruskan)
- ◯ Tidak (Tamat tinjauan, terima kasih)

Bahagian A: Profil Demografi

Sila pilih satu untuk setiap yang berikut.

Jantina *

- ◯ Lelaki
- ◯ Perempuan

Umur *

- ◯ 18-20 tahun
- ◯ 21-25 tahun
- ◯ 26-30 tahun
- ◯ 31 tahun ke atas

Kumpulan etnik *

- ◯ Melayu
- ◯ Cina
- ◯ India
- ◯ Lain-lain

Institusi yang anda sedang belajar berada di *

- ◯ Selangor
- ◯ Kuala Lumpur
- ◯ Perak

Apakah tahun pengajian anda sekarang? *

- ◯ Tahun 1
- ◯ Tahun 2
- ◯ Tahun 3
- ◯ Tahun 4

AI Chatbot yang sedang anda gunakan untuk kajian anda (Pilih semua yang berkenaan) *

- ☐ ChatGPT
- ☐ Jenni AI
- ☐ MathMinds AI
- ☐ Bing Chat
- ☐ Google Bard
- ☐ Other: _____

Bahagian B: Kualiti Komunikasi yang Dipersepsikan

Soalan berikut menggambarkan persepsi pelajar terhadap kualiti komunikasi AI. Kualiti komunikasi yang dirasakan merujuk kepada cara individu menilai keberkesanan dan kepuasan interaksi mereka dengan sistem AI. Respons anda akan membantu kami memahami kualiti komunikasi AI dalam kalangan persepsi pelajar.

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

Saya rasa sistem AI bertindak balas kepada saya tepat pada masanya. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya rasa sistem AI bertindak balas kepada saya dengan tepat. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya rasa sistem AI bertindak balas kepada saya sepenuhnya. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya rasa sistem AI bertindak balas kepada saya dengan ikhlas. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya rasa sistem AI bertindak balas kepada saya dengan boleh dipercayai. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya boleh berkomunikasi secara bebas dengan sistem AI dengan mudah. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya boleh menyatakan apa yang saya ingin nyatakan dengan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya mudah memahami tindak balas daripada sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya rasa sistem AI sangat mesra pengguna. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya mahu terus berinteraksi dengan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya boleh membuat keputusan yang betul berdasarkan interaksi saya dengan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya tidak fikir sistem AI dapat menyelesaikan masalah dengan baik. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya merasakan sistem AI boleh menangani masalah yang kompleks dengan lebih cekap daripada kaedah pengajaran luar talian. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya merasakan sistem AI boleh menangani masalah yang kompleks dengan lebih cekap daripada pendekatan pendidikan yang lain. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya rasa sistem AI telah menjimatkan banyak masa saya dalam membuat keputusan. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Bahagian C: Risiko Privasi yang Ditanggapi

Soalan berikut bertujuan untuk menilai persepsi pelajar tentang risiko privasi yang dikaitkan dengan penggunaan teknologi AI. Risiko privasi yang dirasakan merujuk kepada pemahaman individu tentang potensi ancaman terhadap privasi mereka apabila terlibat dengan atau menggunakan teknologi AI. Respons anda akan membantu kami memahami kebimbangan pelajar tentang privasi dan penggunaan AI.

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

Saya menganggap privasi sebagai hak yang boleh saya kawal dan gunakan. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Mengawal privasi adalah sangat penting bagi saya. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya rasa amat penting untuk mengetahui cara maklumat peribadi saya digunakan. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Apabila platform pembelajaran dalam talian meminta saya memberikan maklumat peribadi, saya perlu menimbang risikonya. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya berpendapat terdapat risiko dalam menggunakan pembelajaran dalam talian. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya fikir penggunaan pembelajaran dalam talian meningkatkan risiko pelanggaran privasi peribadi. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya bimbang tentang pelanggaran privasi akibat serangan terhadap platform pembelajaran dalam talian *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Bahagian D: Kebolehpercayaan

Soal selidik ini bertujuan untuk menilai persepsi pelajar tentang kebolehpercayaan dalam penggunaan sistem AI. Kebolehpercayaan merujuk kepada keyakinan dan kebolehpercayaan yang anda letakkan dalam keupayaan teknologi untuk melaksanakan seperti yang dimaksudkan, memberikan maklumat yang tepat dan melindungi privasi dan data anda. Maklum balas anda akan membantu kami memahami tahap kepercayaan dan keyakinan pelajar terhadap sistem AI.

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

Saya percaya orang selamat semasa berinteraksi dengan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya percaya sistem AI akan memberikan perkhidmatan yang terbaik. *

	1	2	3	4	5	
Sangat tidak setuju	◯	◯	◯	◯	◯	Sangat setuju

Saya percaya sistem AI akan mengesyorkan perkhidmatan terbaik berdasarkan keperluan dan permintaan saya. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya percaya sistem AI akan menawarkan perkhidmatan yang lebih cekap daripada manusia. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya percaya sistem AI akan menawarkan rupa moden kepada firma perkhidmatan. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Sistem AI berfungsi dengan baik. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Sistem AI mempunyai ciri yang diperlukan untuk menyelesaikan tugas utama. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Sistem AI adalah cekap dalam bidang kepakaran mereka. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Sistem AI boleh dipercayai. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Sistem AI boleh diandalkan. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Bahagian E: Niat Tingkah Laku

Soal selidik ini bertujuan untuk menilai kecenderungan atau kesediaan pelajar untuk menggunakan sistem AI. Niat tingkah laku untuk menggunakan sistem AI merujuk kepada kesediaan atau kemungkinan anda terlibat dengan teknologi berdasarkan persepsi, sikap dan kepercayaan anda. Respons anda akan membantu kami memahami hasrat pelajar berkenaan penggunaan dan penggunaan sistem AI.

Berdasarkan pengalaman pembelajaran anda, sila nyatakan tahap persetujuan atau ketidaksetujuan anda pada pernyataan yang disediakan di bawah dengan menyemak jawapan yang sesuai yang sepadan dengan jawapan anda.

Tahap persetujuan

1: Sangat tidak setuju

2: Tidak bersetuju

3: Berkecuali

4: Setuju

5: Sangat setuju

Saya berhasrat untuk terus menggunakan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya meramalkan bahawa saya akan terus menggunakan sistem AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Menggunakan sistem AI adalah sesuatu yang saya akan terus lakukan. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya akan terus memperoleh maklumat yang berkaitan dengan AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya akan memastikan diri saya dikemas kini dengan aplikasi AI terkini. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya berhasrat untuk menggunakan AI untuk membantu pembelajaran saya. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Saya akan terus belajar AI. *

	1	2	3	4	5	
Sangat tidak setuju	○	○	○	○	○	Sangat setuju

Appendix 5: Variable View

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	undergradu...	Numeric	8	2	yes, no	{1.00, yes}...	99.00	8	Right	Nominal	Input
2	knowledge	Numeric	8	2	yes, no	{1.00, yes}...	99.00	8	Right	Nominal	Input
3	institution	Numeric	8	2	yes,no	{1.00, yes}...	99.00	8	Right	Nominal	Input
4	gender	Numeric	8	2	male, female	{1.00, male}...	99.00	8	Right	Nominal	Input
5	age	Numeric	8	2	18,21,26,31	{1.00, 18-20...	99.00	8	Right	Ordinal	Input
6	ethnic	Numeric	8	2	malay, chinese...	{1.00, mala...	99.00	8	Right	Nominal	Input
7	location	Numeric	8	2	selangor, kual...	{1.00, selan...	99.00	8	Right	Nominal	Input
8	year	Numeric	8	2	1,2,3,4	{1.00, year ...	99.00	8	Right	Ordinal	Input
9	PCQ1	Numeric	8	2	timely	{1.00, stron...	99.00	8	Right	Scale	Input
10	PCQ2	Numeric	8	2	accurately	{1.00, stron...	99.00	8	Right	Scale	Input
11	PCQ3	Numeric	8	2	completely	{1.00, stron...	99.00	8	Right	Scale	Input
12	PCQ4	Numeric	8	2	sincerely	{1.00, stron...	99.00	8	Right	Scale	Input
13	PCQ5	Numeric	8	2	reliably	{1.00, stron...	99.00	8	Right	Scale	Input
14	PCQ6	Numeric	8	2	communication	{1.00, stron...	99.00	8	Right	Scale	Input
15	PCQ7	Numeric	8	2	express	{1.00, stron...	99.00	8	Right	Scale	Input
16	PCQ8	Numeric	8	2	understand	{1.00, stron...	99.00	8	Right	Scale	Input
17	PCQ9	Numeric	8	2	user friendly	{1.00, stron...	99.00	8	Right	Scale	Input
18	PCQ10	Numeric	8	2	interacting	{1.00, stron...	99.00	8	Right	Scale	Input
19	PCQ11	Numeric	8	2	right decision	{1.00, stron...	99.00	8	Right	Scale	Input
20	PCQ12	Numeric	8	2	solve problem, ...	{1.00, stron...	99.00	8	Right	Scale	Input
21	PCQ13	Numeric	8	2	more efficiently...	{1.00, stron...	99.00	8	Right	Scale	Input
22	PCQ14	Numeric	8	2	more efficienlty...	{1.00, stron...	99.00	8	Right	Scale	Input
23	PCQ15	Numeric	8	2	save time	{1.00, stron...	99.00	8	Right	Scale	Input
24	PPR1	Numeric	8	2	right that can c...	{1.00, stron...	99.00	8	Right	Scale	Input
25	PPR2	Numeric	8	2	controlling priv...	{1.00, stron...	99.00	8	Right	Scale	Input
26	PPR3	Numeric	8	2	personal infor...	{1.00, stron...	99.00	8	Right	Scale	Input
27	PPR4	Numeric	8	2	weight the risk	{1.00, stron...	99.00	8	Right	Scale	Input
28	PPR5	Numeric	8	2	risk	{1.00, stron...	99.00	8	Right	Scale	Input
29	PPR6	Numeric	8	2	increase risk	{1.00, stron...	99.00	8	Right	Scale	Input
30	PPR7	Numeric	8	2	concerned	{1.00, stron...	99.00	8	Right	Scale	Input
31	T1	Numeric	8	2	safe	{1.00, stron...	99.00	8	Right	Scale	Input
32	T2	Numeric	8	2	best services	{1.00, stron...	99.00	8	Right	Scale	Input
33	T3	Numeric	8	2	recommend	{1.00, stron...	99.00	8	Right	Scale	Input
34	T4	Numeric	8	2	efficient	{1.00, stron...	99.00	8	Right	Scale	Input
35	T5	Numeric	8	2	modern look	{1.00, stron...	99.00	8	Right	Scale	Input
36	T6	Numeric	8	2	work well	{1.00, stron...	99.00	8	Right	Scale	Input
37	T7	Numeric	8	2	features neces...	{1.00, stron...	99.00	8	Right	Scale	Input
38	T8	Numeric	8	2	competent	{1.00, stron...	99.00	8	Right	Scale	Input
39	T9	Numeric	8	2	reliable	{1.00, stron...	99.00	8	Right	Scale	Input
40	T10	Numeric	8	2	dependable	{1.00, stron...	99.00	8	Right	Scale	Input
41	BI1	Numeric	8	2	intend to use	{1.00, stron...	99.00	8	Right	Scale	Input
42	BI2	Numeric	8	2	predict will cont...	{1.00, stron...	99.00	8	Right	Scale	Input
43	BI3	Numeric	8	2	would continue	{1.00, stron...	99.00	8	Right	Scale	Input
44	BI4	Numeric	8	2	acquire inform...	{1.00, stron...	99.00	8	Right	Scale	Input
45	BI5	Numeric	8	2	keep updated	{1.00, stron...	99.00	8	Right	Scale	Input
46	BI6	Numeric	8	2	assist with lear...	{1.00, stron...	99.00	8	Right	Scale	Input
47	BI7	Numeric	8	2	continue to learn	{1.00, stron...	99.00	8	Right	Scale	Input
48	PPR	Numeric	8	2	PPR	{1.00, stron...	99.00	10	Right	Scale	Input
49	T	Numeric	8	2	T	{1.00, stron...	99.00	10	Right	Scale	Input
50	BI	Numeric	8	2	BI	{1.00, stron...	99.00	10	Right	Scale	Input
51	NegPCQ12	Numeric	8	2	i dont think	{1.00, stron...	99.00	10	Right	Scale	Input
52	PCQ	Numeric	8	2	PCQ	None	None	10	Right	Scale	Input

Appendix 6: Data View

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
1	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	3.00	1.00	5.00	5.00
2	1.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
3	1.00	1.00	1.00	2.00	1.00	1.00	3.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	1.00	4.00	2.00
4	1.00	1.00	1.00	2.00	2.00	1.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	4.00
5	1.00	1.00	1.00	1.00	2.00	1.00	3.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	1.00	5.00	4.00
6	1.00	1.00	1.00	2.00	2.00	1.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
7	1.00	1.00	1.00	2.00	3.00	1.00	3.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
8	1.00	1.00	1.00	1.00	1.00	2.00	3.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	4.00
9	1.00	1.00	1.00	1.00	1.00	2.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	2.00	4.00	3.00	4.00	4.00	4.00	1.00	3.00	4.00
10	1.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	1.00	4.00	4.00
11	1.00	1.00	1.00	1.00	1.00	2.00	3.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
12	1.00	1.00	1.00	2.00	1.00	2.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
13	1.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	1.00	5.00	5.00
14	1.00	1.00	1.00	2.00	1.00	2.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
15	1.00	1.00	1.00	1.00	1.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
16	1.00	1.00	1.00	1.00	1.00	2.00	3.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	1.00	5.00	5.00
17	1.00	1.00	1.00	2.00	1.00	2.00	3.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	4.00	5.00
18	1.00	1.00	1.00	1.00	1.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	1.00	5.00	5.00
19	1.00	1.00	1.00	2.00	1.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
20	1.00	1.00	1.00	2.00	1.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
21	1.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
22	1.00	1.00	1.00	2.00	1.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	1.00	5.00	4.00
23	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
24	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
25	1.00	1.00	1.00	2.00	2.00	2.00	3.00	1.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	5.00
26	1.00	1.00	1.00	2.00	2.00	2.00	3.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	1.00	4.00	4.00
27	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
28	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
29	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
1	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	3.00	3.00	4.00	5.00	3.00	4.00	4.00	4.00	3.00	4.00
2	4.00	4.00	5.00	5.00	4.00	2.00	1.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00
3	2.00	2.00	1.00	1.00	4.00	4.00	4.00	1.00	2.00	1.00	2.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00
4	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	2.00	4.00	4.00	2.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
5	4.00	5.00	4.00	2.00	4.00	2.00	4.00	4.00	2.00	2.00	3.00	4.00	2.00	2.00	1.00	4.00	4.00	2.00	4.00	2.00	3.00	4.00
6	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
7	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00
8	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
9	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	2.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00
10	5.00	5.00	4.00	4.00	5.00	4.00	1.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
11	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
12	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
13	5.00	5.00	4.00	4.00	4.00	1.00	1.00	5.00	4.00	5.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	4.00	3.00	4.00	4.00
14	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
15	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
16	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
17	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00
18	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
19	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00
20	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00
21	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
22	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00
23	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	3.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00
24	4.00	5.00	5.00	4.00	5.00	2.00	1.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00
25	4.00	4.00	4.00	4.00	5.00	1.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
26	5.00	5.00	4.00	4.00	5.00	4.00	4.00	2.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00
27	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
28	4.00	3.00	4.00	4.00	4.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
29	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
1	3.00	4.00	4.00	4.00	5.00	4.86	4.20	4.00	5.00	4.53										
2	5.00	4.00	4.00	5.00	5.00	3.71	4.40	4.71	5.00	4.27										
3	1.00	2.00	1.00	2.00	1.00	2.43	1.60	1.43	5.00	3.80										
4	4.00	4.00	4.00	4.00	4.00	4.57	3.50	4.00	5.00	4.60										
5	3.00	4.00	2.00	2.00	2.00	3.57	2.60	2.71	5.00	4.47										
6	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00										
7	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.33										
8	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.80										
9	4.00	5.00	4.00	4.00	4.00	4.86	4.40	4.14	5.00	3.80										
10	4.00	5.00	5.00	4.00	4.00	4.00	4.60	4.43	5.00	4.47										
11	4.00	4.00	4.00	4.00	4.00	4.14	4.00	4.00	5.00	4.07										
12	5.00	5.00	5.00	5.00	5.00	4.00	4.20	5.00	5.00	4.07										
13	4.00	4.00	4.00	4.00	4.00	3.43	3.70	3.86	5.00	4.67										
14	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.07										
15	5.00	5.00	5.00	5.00	5.00	4.86	5.00	5.00	5.00	5.00										
16	4.00	4.00	4.00	5.00	5.00	4.43	4.30	4.43	5.00	4.53										
17	5.00	5.00	5.00	5.00	5.00	4.86	4.90	4.86	5.00	4.73										
18	5.00	5.00	5.00	5.00	4.00	4.86	4.90	4.86	5.00	4.87										
19	5.00	5.00	5.00	5.00	5.00	5.00	4.80	5.00	5.00	4.87										
20	4.00	4.00	4.00	4.00	4.00	4.71	4.80	4.00	5.00	4.53										
21	5.00	5.00	5.00	5.00	5.00	4.57	4.90	5.00	5.00	4.93										
22	5.00	5.00	4.00	5.00	4.00	4.71	4.60	4.71	5.00	4.73										
23	5.00	5.00	5.00	5.00	5.00	4.86	3.90	4.71	5.00	4.73										
24	4.00	4.00	4.00	5.00	5.00	3.86	4.50	4.57	5.00	4.47										
25	4.00	5.00	5.00	4.00	4.00	3.57	4.60	4.43	5.00	4.53										
26	4.00	5.00	4.00	5.00	4.00	4.00	4.40	4.29	5.00	4.47										
27	4.00	4.00	4.00	4.00	4.00	4.00	3.90	4.00	5.00	4.13										
28	4.00	4.00	5.00	4.00	4.00	3.71	3.90	4.14	5.00	4.07										
29	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.07										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
30	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00
31	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00
32	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
33	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
34	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
35	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
36	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
37	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
38	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
39	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
40	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
41	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
42	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	4.00	5.00
43	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	5.00
44	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
45	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	3.00	4.00
46	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
47	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	1.00	5.00	5.00
48	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
49	1.00	1.00	1.00	2.00	1.00	1.00	2.00	4.00	5.00	4.00	4.00	2.00	2.00	5.00	2.00	1.00	5.00	5.00	4.00	1.00	2.00	4.00
50	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
51	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
52	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	5.00
53	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	5.00
54	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
55	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
56	1.00	1.00	1.00	1.00	1.00	1.00	2.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
57	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
58	1.00	1.00	1.00	2.00	2.00	1.00	2.00	2.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
30	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
31	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
32	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
33	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	3.00	4.00	4.00	3.00	2.00	1.00
34	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
35	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
36	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00
37	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00
38	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
39	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00
40	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00
41	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00
42	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00
43	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
44	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
45	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
46	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00
47	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	3.00	3.00	5.00	5.00	5.00	5.00
48	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
49	5.00	5.00	5.00	2.00	4.00	4.00	1.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	2.00	2.00
50	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
51	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
52	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00
53	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00
54	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	2.00	1.00	2.00
55	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
56	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
57	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
58	5.00	5.00	4.00	4.00	4.00	2.00	2.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
30	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.93										
31	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.60										
32	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.93										
33	2.00	1.00	2.00	3.00	4.00	4.43	4.20	2.71	5.00	4.40										
34	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.93										
35	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.73										
36	5.00	4.00	5.00	5.00	5.00	5.00	4.90	4.86	5.00	5.00										
37	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.93										
38	5.00	5.00	5.00	5.00	5.00	4.57	4.90	5.00	5.00	4.87										
39	4.00	5.00	5.00	5.00	5.00	4.86	4.30	4.86	5.00	5.00										
40	4.00	4.00	4.00	4.00	4.00	4.71	4.80	4.00	5.00	4.93										
41	5.00	5.00	4.00	5.00	4.00	4.43	4.50	4.71	5.00	5.00										
42	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.57	5.00	4.80										
43	5.00	5.00	5.00	5.00	5.00	4.86	5.00	5.00	5.00	4.87										
44	5.00	5.00	5.00	5.00	5.00	4.86	4.70	5.00	5.00	5.00										
45	5.00	5.00	4.00	5.00	5.00	4.86	4.80	4.86	5.00	4.27										
46	5.00	4.00	5.00	4.00	5.00	4.57	4.80	4.71	5.00	4.47										
47	5.00	5.00	5.00	5.00	5.00	5.00	4.20	5.00	5.00	4.87										
48	4.00	4.00	5.00	5.00	5.00	5.00	4.50	4.57	5.00	4.93										
49	2.00	2.00	1.00	5.00	4.00	3.71	4.50	3.29	5.00	3.67										
50	4.00	4.00	5.00	4.00	4.00	4.29	4.40	4.29	5.00	4.33										
51	5.00	4.00	4.00	5.00	4.00	4.43	4.60	4.43	5.00	4.47										
52	5.00	5.00	4.00	5.00	5.00	4.29	4.70	4.71	5.00	4.53										
53	4.00	4.00	4.00	4.00	5.00	5.00	4.80	4.14	5.00	4.87										
54	1.00	2.00	1.00	2.00	1.00	4.29	4.30	1.86	5.00	4.33										
55	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.33										
56	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.27										
57	4.00	4.00	4.00	5.00	5.00	4.29	4.30	4.43	5.00	4.33										
58	4.00	4.00	5.00	4.00	4.00	3.71	4.40	4.43	5.00	4.47										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
59	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	1.00	5.00	5.00
60	1.00	1.00	1.00	1.00	2.00	1.00	2.00	3.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
61	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
62	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
63	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	1.00	4.00	5.00
64	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	1.00	5.00	5.00
65	1.00	1.00	1.00	1.00	2.00	1.00	2.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
66	1.00	1.00	1.00	1.00	2.00	1.00	2.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
67	1.00	1.00	1.00	1.00	2.00	1.00	2.00	3.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
68	1.00	1.00	1.00	1.00	2.00	1.00	2.00	3.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
69	1.00	1.00	1.00	2.00	2.00	1.00	2.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	5.00
70	1.00	1.00	1.00	2.00	2.00	1.00	2.00	2.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	5.00
71	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
72	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	5.00
73	1.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	1.00	5.00	5.00
74	1.00	1.00	1.00	2.00	3.00	1.00	2.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	5.00
75	1.00	1.00	1.00	2.00	3.00	1.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
76	1.00	1.00	1.00	2.00	1.00	2.00	2.00	3.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	1.00	4.00	5.00
77	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
78	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	1.00	5.00	5.00
79	1.00	1.00	1.00	2.00	1.00	2.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
80	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
81	1.00	1.00	1.00	2.00	1.00	2.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
82	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
83	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	5.00
84	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	4.00	5.00
85	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	1.00	4.00	5.00
86	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	1.00	4.00	4.00
87	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
59	4.00	4.00	4.00	4.00	4.00	1.00	2.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
60	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
61	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00
62	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
63	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
64	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00
65	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
66	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00
67	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
68	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
69	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	3.00	3.00	3.00	4.00	3.00	3.00	2.00	4.00	4.00	5.00	3.00
70	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00
71	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
72	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
73	5.00	5.00	4.00	5.00	5.00	1.00	1.00	5.00	5.00	5.00	5.00	4.00	4.00	2.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00
74	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	3.00	3.00	3.00	4.00	3.00
75	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
76	5.00	5.00	4.00	5.00	5.00	2.00	1.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
77	5.00	5.00	4.00	4.00	5.00	1.00	1.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
78	5.00	5.00	5.00	5.00	4.00	2.00	2.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00
79	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
80	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
81	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
82	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00
83	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
84	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00
85	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00
86	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00
87	4.00	5.00	4.00	4.00	5.00	4.00	4.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
59	4.00	5.00	5.00	5.00	4.00	3.43	4.30	4.57	5.00	4.60										
60	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.33										
61	4.00	5.00	4.00	4.00	5.00	4.29	4.40	4.43	5.00	4.33										
62	4.00	5.00	4.00	5.00	5.00	4.43	4.40	4.57	5.00	4.27										
63	4.00	5.00	5.00	5.00	4.00	4.43	4.40	4.57	5.00	4.47										
64	4.00	5.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	4.60										
65	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
66	4.00	5.00	4.00	4.00	4.00	4.43	4.40	4.29	5.00	4.47										
67	4.00	5.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	4.47										
68	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.33										
69	5.00	3.00	3.00	3.00	4.00	4.29	3.40	3.71	5.00	4.40										
70	4.00	5.00	4.00	4.00	4.00	4.43	4.30	4.29	5.00	4.47										
71	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
72	4.00	5.00	4.00	5.00	5.00	4.57	4.70	4.57	5.00	4.47										
73	4.00	4.00	5.00	4.00	4.00	3.71	4.10	4.43	5.00	4.67										
74	4.00	3.00	4.00	3.00	3.00	4.29	4.20	3.29	5.00	4.53										
75	4.00	5.00	4.00	4.00	5.00	4.43	4.30	4.43	5.00	4.40										
76	4.00	4.00	4.00	4.00	5.00	3.71	4.50	4.29	5.00	4.53										
77	5.00	4.00	4.00	4.00	4.00	3.57	4.40	4.43	5.00	4.47										
78	4.00	3.00	3.00	4.00	5.00	4.00	4.30	4.00	5.00	4.60										
79	5.00	5.00	5.00	5.00	5.00	4.71	4.80	5.00	5.00	5.00										
80	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.93										
81	5.00	5.00	5.00	5.00	5.00	4.86	5.00	5.00	5.00	5.00										
82	4.00	5.00	5.00	5.00	4.00	4.86	4.90	4.71	5.00	5.00										
83	5.00	5.00	5.00	5.00	5.00	4.43	4.50	5.00	5.00	4.87										
84	5.00	5.00	5.00	5.00	5.00	4.43	4.80	4.86	5.00	4.73										
85	4.00	4.00	5.00	4.00	5.00	5.00	4.70	4.57	5.00	4.73										
86	4.00	4.00	4.00	4.00	3.00	4.71	5.00	3.86	5.00	4.80										
87	4.00	5.00	4.00	4.00	5.00	4.14	4.40	4.43	5.00	4.33										

	undergraduate	knowledge	institution	gender	age	ethnic	location	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
88	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	1.00	4.00	5.00
89	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	1.00	5.00	5.00
90	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	1.00	4.00	5.00
91	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	4.00
92	1.00	1.00	1.00	2.00	1.00	2.00	2.00	3.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	4.00
93	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
94	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	5.00	5.00
95	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
96	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
97	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
98	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	5.00	5.00
99	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
100	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	1.00	4.00	4.00
101	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
102	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00
103	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00
104	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	3.00	1.00	1.00	3.00
105	1.00	1.00	1.00	2.00	2.00	2.00	2.00	1.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	5.00	4.00
106	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	3.00
107	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
108	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00
109	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
110	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	5.00
111	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	5.00	4.00
112	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	1.00	4.00	5.00
113	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	1.00	5.00	4.00
114	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	4.00
115	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
116	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	5.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
88	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
89	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
90	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
91	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
92	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
93	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
94	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
95	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00
96	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00
97	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
98	4.00	5.00	4.00	1.00	2.00	4.00	4.00	2.00	5.00	5.00	4.00	4.00	5.00	4.00	3.00	5.00	2.00	4.00	5.00	3.00	4.00	2.00
99	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
100	5.00	5.00	4.00	5.00	5.00	1.00	1.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00
101	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00
102	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00
103	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
104	2.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	3.00	3.00	2.00	2.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00
105	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
106	3.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00
107	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
108	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00
109	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00
110	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00
111	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00
112	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00
113	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00
114	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
115	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00
116	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
88	5.00	5.00	5.00	4.00	4.00	4.29	4.00	4.71	5.00	4.67										
89	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.00	5.00	4.80										
90	5.00	4.00	5.00	5.00	5.00	5.00	4.70	4.86	5.00	4.53										
91	5.00	5.00	5.00	5.00	5.00	4.43	4.80	5.00	5.00	4.80										
92	5.00	5.00	5.00	5.00	5.00	4.71	4.90	5.00	5.00	4.73										
93	4.00	5.00	5.00	5.00	4.00	4.29	4.40	4.57	5.00	4.33										
94	5.00	5.00	5.00	5.00	5.00	4.71	4.90	5.00	5.00	4.67										
95	4.00	5.00	3.00	5.00	4.00	4.29	4.40	4.43	5.00	4.60										
96	5.00	4.00	4.00	4.00	5.00	4.14	4.40	4.57	5.00	4.47										
97	5.00	4.00	5.00	5.00	5.00	4.00	4.30	4.86	5.00	4.13										
98	4.00	2.00	4.00	5.00	5.00	3.14	4.10	4.00	5.00	4.60										
99	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00										
100	5.00	4.00	4.00	4.00	5.00	3.71	4.70	4.57	5.00	4.53										
101	5.00	4.00	4.00	5.00	5.00	4.43	4.50	4.57	5.00	4.33										
102	5.00	4.00	4.00	5.00	5.00	4.29	4.40	4.57	5.00	4.40										
103	5.00	5.00	4.00	4.00	5.00	4.57	4.30	4.57	5.00	4.47										
104	5.00	5.00	4.00	5.00	5.00	4.57	3.70	4.71	5.00	4.07										
105	4.00	4.00	5.00	5.00	5.00	4.29	4.60	4.57	5.00	4.47										
106	5.00	4.00	4.00	4.00	4.00	4.43	4.50	4.14	5.00	4.20										
107	4.00	4.00	4.00	5.00	4.00	4.43	4.50	4.29	5.00	4.27										
108	4.00	4.00	5.00	5.00	5.00	4.86	4.60	4.71	5.00	4.87										
109	4.00	5.00	5.00	5.00	5.00	4.71	4.90	4.57	5.00	4.80										
110	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
111	4.00	4.00	4.00	4.00	5.00	4.71	4.80	4.14	5.00	4.67										
112	5.00	5.00	5.00	5.00	5.00	4.43	4.80	5.00	5.00	4.80										
113	4.00	4.00	4.00	4.00	5.00	4.29	4.90	4.43	5.00	4.73										
114	5.00	5.00	5.00	5.00	5.00	4.43	4.90	5.00	5.00	4.80										
115	5.00	4.00	5.00	4.00	5.00	4.71	4.80	4.71	5.00	4.73										
116	5.00	5.00	4.00	5.00	5.00	4.71	4.80	4.71	5.00	4.67										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
117	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	1.00	5.00	5.00
118	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
119	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
120	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	4.00
121	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
122	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
123	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	5.00	5.00	4.00	4.00	3.00	4.00	4.00	5.00	3.00	4.00	4.00	1.00	3.00	4.00
124	1.00	1.00	1.00	2.00	3.00	2.00	2.00	2.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	3.00
125	1.00	1.00	1.00	2.00	1.00	3.00	2.00	3.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
126	1.00	1.00	1.00	2.00	1.00	3.00	2.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
127	1.00	1.00	1.00	1.00	1.00	3.00	2.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
128	1.00	1.00	1.00	1.00	1.00	3.00	2.00	3.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	2.00	2.00	1.00	4.00	4.00
129	1.00	1.00	1.00	1.00	1.00	3.00	2.00	2.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	1.00	5.00	5.00
130	1.00	1.00	1.00	1.00	1.00	3.00	2.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	1.00	5.00	5.00
131	1.00	1.00	1.00	1.00	1.00	3.00	2.00	2.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	1.00	5.00	4.00
132	1.00	1.00	1.00	1.00	1.00	3.00	2.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	1.00	5.00	4.00
133	1.00	1.00	1.00	1.00	1.00	3.00	2.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
134	1.00	1.00	1.00	2.00	2.00	3.00	2.00	2.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	1.00	4.00	4.00
135	1.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	3.00	3.00	4.00	3.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
136	1.00	1.00	1.00	2.00	2.00	3.00	2.00	1.00	5.00	5.00	5.00	5.00	4.00	4.00	2.00	4.00	2.00	4.00	4.00	1.00	4.00	4.00
137	1.00	1.00	1.00	1.00	2.00	3.00	2.00	2.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
138	1.00	1.00	1.00	2.00	2.00	3.00	2.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	1.00	4.00	4.00
139	1.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	1.00	4.00	4.00
140	1.00	1.00	1.00	1.00	2.00	3.00	2.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
141	1.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	1.00	5.00	5.00
142	1.00	1.00	1.00	1.00	2.00	3.00	2.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	1.00	5.00	5.00
143	1.00	1.00	1.00	2.00	2.00	3.00	2.00	2.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	3.00	3.00
144	1.00	1.00	1.00	2.00	2.00	3.00	2.00	2.00	5.00	4.00	3.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
145	1.00	1.00	1.00	2.00	2.00	3.00	2.00	3.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
117	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
118	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
119	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
120	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00
121	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
122	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
123	4.00	5.00	5.00	5.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
124	3.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
125	5.00	4.00	4.00	5.00	5.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
126	4.00	5.00	4.00	4.00	4.00	4.00	5.00	2.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00
127	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
128	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00
129	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
130	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00
131	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00
132	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
133	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00
134	4.00	4.00	4.00	3.00	4.00	2.00	1.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00
135	4.00	3.00	4.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00
136	5.00	5.00	5.00	4.00	5.00	1.00	1.00	5.00	5.00	5.00	4.00	4.00	4.00	2.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
137	5.00	4.00	4.00	2.00	2.00	1.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
138	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
139	4.00	4.00	4.00	5.00	4.00	4.00	2.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
140	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
141	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
142	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
143	3.00	1.00	1.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	1.00	2.00	3.00	2.00	2.00	2.00	1.00	3.00	3.00	2.00	1.00	2.00
144	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	1.00	1.00
145	1.00	3.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ..	PCQ	var	var	var	var	var	var	var	var	var	var
117	5.00	5.00	5.00	5.00	4.00	4.57	4.80	4.86	5.00	4.87										
118	5.00	5.00	5.00	5.00	5.00	4.86	4.80	5.00	5.00	4.60										
119	5.00	5.00	4.00	4.00	5.00	4.57	4.60	4.71	5.00	4.73										
120	5.00	5.00	5.00	5.00	5.00	4.71	4.60	5.00	5.00	4.80										
121	4.00	4.00	4.00	4.00	5.00	5.00	4.70	4.29	5.00	4.93										
122	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.20										
123	5.00	5.00	5.00	4.00	5.00	4.29	4.10	4.86	5.00	4.07										
124	5.00	5.00	5.00	5.00	5.00	3.71	3.80	5.00	5.00	3.93										
125	5.00	5.00	4.00	4.00	5.00	3.57	4.40	4.71	5.00	4.53										
126	5.00	4.00	4.00	4.00	4.00	4.00	4.60	4.43	5.00	4.47										
127	5.00	5.00	4.00	5.00	5.00	5.00	4.60	4.86	5.00	5.00										
128	5.00	4.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	3.67										
129	5.00	5.00	5.00	5.00	4.00	5.00	4.90	4.86	5.00	4.67										
130	5.00	5.00	5.00	4.00	5.00	4.86	4.80	4.86	5.00	4.80										
131	4.00	5.00	5.00	5.00	4.00	4.86	4.70	4.71	5.00	4.73										
132	4.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.40										
133	4.00	4.00	5.00	5.00	4.00	4.29	4.40	4.43	5.00	4.33										
134	5.00	4.00	3.00	3.00	4.00	3.14	4.70	4.14	5.00	4.40										
135	5.00	4.00	5.00	5.00	5.00	4.29	4.80	4.86	5.00	4.07										
136	5.00	4.00	4.00	5.00	5.00	3.71	4.20	4.71	5.00	4.13										
137	4.00	5.00	4.00	4.00	4.00	3.14	4.60	4.29	5.00	4.53										
138	4.00	4.00	4.00	4.00	4.00	4.86	4.00	4.00	5.00	4.20										
139	4.00	4.00	4.00	5.00	4.00	3.86	4.30	4.29	5.00	4.47										
140	4.00	5.00	4.00	5.00	5.00	4.29	4.20	4.57	5.00	4.27										
141	5.00	5.00	5.00	5.00	5.00	4.86	5.00	5.00	5.00	4.87										
142	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.47										
143	1.00	2.00	3.00	2.00	1.00	2.00	2.10	2.00	5.00	4.20										
144	1.00	1.00	2.00	2.00	1.00	1.29	1.60	1.57	5.00	2.33										
145	2.00	1.00	2.00	2.00	2.00	1.86	1.40	1.71	5.00	1.73										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
146	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	5.00	2.00	5.00	2.00	5.00	4.00	4.00	4.00	4.00	5.00	1.00	4.00	5.00
147	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	5.00	5.00	2.00	1.00	4.00	5.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00
148	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	1.00	4.00	5.00
149	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
150	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	1.00	4.00	4.00
151	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	1.00	4.00	5.00
152	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	5.00
153	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	3.00	1.00	4.00	4.00
154	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	3.00	1.00	4.00	4.00
155	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
156	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
157	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
158	1.00	1.00	1.00	2.00	1.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
159	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	1.00	4.00	4.00
160	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
161	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
162	1.00	1.00	1.00	2.00	1.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
163	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
164	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
165	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	1.00	4.00	4.00
166	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
167	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00	1.00	4.00	4.00
168	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	1.00	5.00	5.00
169	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	4.00	4.00
170	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	4.00	5.00
171	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	5.00
172	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	5.00
173	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	4.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	4.00	4.00	1.00	4.00	4.00
174	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
146	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
147	5.00	4.00	4.00	4.00	5.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00
148	4.00	5.00	4.00	5.00	5.00	4.00	4.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
149	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
150	5.00	4.00	4.00	2.00	2.00	4.00	5.00	3.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
151	5.00	5.00	4.00	5.00	5.00	1.00	1.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
152	5.00	5.00	4.00	4.00	4.00	2.00	2.00	5.00	4.00	3.00	3.00	4.00	3.00	4.00	4.00	3.00	4.00	4.00	5.00	4.00	4.00	4.00
153	4.00	5.00	4.00	5.00	5.00	2.00	2.00	2.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
154	3.00	5.00	5.00	5.00	4.00	2.00	1.00	4.00	5.00	4.00	4.00	4.00	3.00	3.00	2.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
155	4.00	5.00	4.00	4.00	5.00	2.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00
156	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
157	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
158	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
159	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00
160	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00
161	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
162	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00
163	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00
164	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00
165	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
166	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
167	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
168	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00
169	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00
170	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
171	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
172	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00
173	4.00	5.00	4.00	4.00	5.00	5.00	4.00	3.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00
174	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
146	5.00	5.00	4.00	4.00	4.00	4.71	4.30	4.57	5.00	4.13										
147	4.00	4.00	4.00	5.00	5.00	3.57	4.70	4.43	5.00	4.33										
148	4.00	4.00	5.00	4.00	4.00	4.14	4.40	4.29	5.00	4.53										
149	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.40										
150	4.00	4.00	4.00	5.00	5.00	3.43	4.60	4.43	5.00	4.47										
151	4.00	4.00	5.00	5.00	5.00	3.71	4.90	4.57	5.00	4.80										
152	4.00	4.00	4.00	4.00	4.00	3.71	3.60	4.14	5.00	4.67										
153	4.00	4.00	5.00	5.00	4.00	3.57	4.60	4.43	5.00	4.13										
154	4.00	4.00	3.00	4.00	2.00	3.71	3.80	3.71	5.00	3.93										
155	5.00	4.00	4.00	4.00	2.00	3.86	4.50	4.00	5.00	4.80										
156	4.00	5.00	5.00	4.00	4.00	4.86	4.50	4.43	5.00	4.53										
157	4.00	4.00	5.00	5.00	5.00	4.57	4.40	4.57	5.00	4.47										
158	4.00	4.00	4.00	4.00	4.00	4.43	4.30	4.14	5.00	4.27										
159	5.00	4.00	4.00	5.00	4.00	4.43	4.40	4.29	5.00	4.53										
160	4.00	4.00	4.00	4.00	5.00	4.14	4.40	4.29	5.00	4.27										
161	4.00	4.00	4.00	5.00	5.00	4.29	4.20	4.29	5.00	4.27										
162	5.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.33										
163	5.00	5.00	4.00	4.00	4.00	4.29	4.30	4.43	5.00	4.33										
164	5.00	4.00	4.00	4.00	4.00	4.57	4.70	4.29	5.00	4.40										
165	4.00	5.00	5.00	5.00	4.00	4.43	4.40	4.57	5.00	4.47										
166	4.00	5.00	5.00	4.00	4.00	4.43	4.60	4.43	5.00	4.33										
167	4.00	4.00	5.00	4.00	4.00	4.43	4.60	4.29	5.00	3.93										
168	5.00	4.00	4.00	4.00	4.00	4.43	4.60	4.29	5.00	4.67										
169	5.00	4.00	5.00	4.00	5.00	4.57	4.50	4.57	5.00	4.53										
170	5.00	5.00	5.00	5.00	5.00	4.86	4.70	5.00	5.00	4.87										
171	4.00	4.00	5.00	4.00	4.00	4.43	4.30	4.29	5.00	4.47										
172	5.00	4.00	4.00	4.00	4.00	4.71	4.80	4.29	5.00	4.87										
173	4.00	5.00	5.00	5.00	4.00	4.29	4.40	4.71	5.00	3.67										
174	4.00	4.00	5.00	4.00	4.00	4.14	4.10	4.29	5.00	4.13										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
175	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	3.00	3.00	4.00	3.00	3.00	1.00	4.00	3.00
176	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
177	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
178	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
179	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
180	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
181	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	2.00	2.00	4.00	4.00	3.00	2.00	2.00	2.00	1.00	4.00	4.00
182	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
183	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	3.00	1.00	4.00	4.00
184	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
185	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	4.00	2.00	2.00	4.00	5.00	2.00	1.00	5.00	4.00	5.00	4.00	1.00	4.00	5.00
186	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	1.00	3.00	3.00
187	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	1.00	5.00	5.00
188	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	5.00	4.00
189	1.00	1.00	1.00	1.00	2.00	1.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	2.00	1.00	3.00	5.00
190	1.00	1.00	1.00	1.00	2.00	1.00	1.00	4.00	5.00	5.00	4.00	4.00	2.00	4.00	2.00	4.00	4.00	2.00	4.00	1.00	4.00	4.00
191	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	2.00	1.00	4.00	4.00
192	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
193	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
194	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	1.00	1.00	4.00
195	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	1.00	5.00	4.00
196	1.00	1.00	1.00	1.00	2.00	1.00	1.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
197	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	1.00	4.00	4.00
198	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	5.00	4.00	3.00	3.00	4.00	5.00	3.00	4.00	3.00	3.00	4.00	1.00	4.00	4.00
199	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	3.00
200	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	3.00	4.00
201	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	5.00	4.00
202	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
203	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	1.00	5.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
175	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
176	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
177	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
178	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
179	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
180	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
181	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	3.00	3.00	4.00	4.00	4.00	3.00	3.00	4.00	3.00	5.00	4.00	4.00	5.00
182	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00
183	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
184	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
185	5.00	5.00	4.00	5.00	2.00	2.00	1.00	4.00	5.00	4.00	2.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
186	5.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00
187	5.00	5.00	4.00	4.00	4.00	1.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00
188	4.00	4.00	4.00	4.00	4.00	2.00	2.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
189	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00
190	4.00	5.00	5.00	5.00	5.00	2.00	2.00	5.00	5.00	5.00	4.00	4.00	2.00	1.00	4.00	2.00	1.00	1.00	5.00	4.00	2.00	2.00
191	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
192	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
193	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
194	2.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00
195	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	2.00
196	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
197	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
198	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	3.00	4.00	5.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00	5.00
199	3.00	4.00	4.00	2.00	3.00	4.00	5.00	4.00	5.00	4.00	3.00	4.00	5.00	4.00	3.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
200	2.00	4.00	2.00	2.00	1.00	5.00	4.00	4.00	4.00	4.00	3.00	2.00	3.00	4.00	5.00	4.00	2.00	4.00	5.00	4.00	5.00	4.00
201	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
202	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00
203	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
175	4.00	4.00	5.00	5.00	4.00	4.14	4.20	4.43	5.00	3.87										
176	4.00	4.00	5.00	5.00	5.00	4.14	4.30	4.57	5.00	4.20										
177	4.00	4.00	4.00	4.00	4.00	4.29	4.20	4.14	5.00	4.27										
178	4.00	4.00	5.00	4.00	4.00	4.29	4.40	4.29	5.00	4.20										
179	4.00	4.00	4.00	4.00	5.00	4.29	4.30	4.29	5.00	4.20										
180	4.00	4.00	5.00	4.00	4.00	4.43	4.30	4.29	5.00	4.27										
181	4.00	5.00	5.00	4.00	4.00	4.29	3.60	4.43	5.00	3.40										
182	4.00	3.00	3.00	4.00	3.00	4.29	4.30	3.71	5.00	4.40										
183	4.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.20										
184	4.00	5.00	4.00	4.00	4.00	4.29	4.40	4.29	5.00	4.40										
185	4.00	4.00	4.00	4.00	5.00	3.29	4.40	4.29	5.00	3.80										
186	4.00	4.00	4.00	4.00	4.00	3.86	5.00	4.00	5.00	4.60										
187	5.00	4.00	4.00	4.00	4.00	3.57	4.40	4.43	5.00	4.53										
188	4.00	5.00	4.00	4.00	2.00	3.57	4.40	4.00	5.00	4.33										
189	5.00	5.00	4.00	4.00	4.00	4.43	4.70	4.29	5.00	4.33										
190	2.00	2.00	2.00	2.00	1.00	4.14	2.90	2.57	5.00	3.80										
191	4.00	5.00	5.00	5.00	4.00	4.43	4.60	4.57	5.00	3.80										
192	4.00	4.00	4.00	5.00	5.00	4.43	4.50	4.43	5.00	4.73										
193	4.00	4.00	4.00	5.00	5.00	4.57	4.40	4.43	5.00	4.60										
194	5.00	4.00	4.00	4.00	4.00	4.43	4.50	4.29	5.00	4.00										
195	5.00	2.00	2.00	1.00	5.00	4.29	4.40	3.29	5.00	4.67										
196	4.00	5.00	5.00	4.00	4.00	4.86	4.60	4.43	5.00	4.80										
197	4.00	5.00	5.00	5.00	4.00	4.43	4.60	4.57	5.00	4.20										
198	4.00	5.00	5.00	5.00	4.00	4.43	3.90	4.43	5.00	3.87										
199	4.00	4.00	5.00	3.00	3.00	3.71	4.10	4.00	5.00	4.20										
200	5.00	4.00	5.00	5.00	4.00	3.14	3.50	4.57	5.00	4.07										
201	4.00	4.00	5.00	4.00	4.00	4.29	4.40	4.29	5.00	4.33										
202	5.00	4.00	5.00	5.00	4.00	4.57	4.50	4.57	5.00	4.60										
203	5.00	4.00	5.00	5.00	4.00	4.57	4.50	4.57	5.00	4.60										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
204	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
205	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	1.00	5.00	5.00
206	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
207	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
208	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
209	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
210	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	4.00
211	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	4.00	4.00
212	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	4.00
213	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
214	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	3.00	4.00	5.00	5.00	5.00	4.00	1.00	4.00	5.00
215	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
216	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
217	1.00	1.00	1.00	2.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	1.00	4.00	4.00
218	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	1.00	2.00	4.00
219	1.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	3.00	4.00
220	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	2.00	4.00
221	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	2.00	3.00
222	1.00	1.00	1.00	2.00	3.00	1.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	4.00
223	1.00	1.00	1.00	2.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00
224	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	3.00	1.00	4.00	4.00
225	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
226	1.00	1.00	1.00	2.00	3.00	1.00	1.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
227	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	5.00	4.00
228	1.00	1.00	1.00	2.00	3.00	1.00	1.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
229	1.00	1.00	1.00	1.00	3.00	1.00	1.00	2.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
230	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
231	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
232	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	1.00	5.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
204	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
205	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
206	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
207	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
208	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
209	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
210	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
211	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
212	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
213	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
214	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
215	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00
216	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
217	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
218	4.00	5.00	4.00	3.00	2.00	2.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
219	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
220	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	3.00	3.00
221	3.00	5.00	4.00	2.00	2.00	2.00	2.00	3.00	5.00	4.00	4.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	5.00	4.00	4.00	3.00
222	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
223	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
224	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00
225	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00
226	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
227	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00
228	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00
229	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
230	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
231	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
232	4.00	5.00	4.00	5.00	2.00	1.00	3.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
204	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.86	5.00	4.93										
205	4.00	4.00	4.00	5.00	4.00	4.29	4.40	4.29	5.00	4.67										
206	4.00	4.00	5.00	4.00	5.00	4.29	4.40	4.43	5.00	4.40										
207	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.33										
208	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
209	4.00	5.00	4.00	5.00	4.00	4.43	4.50	4.43	5.00	4.40										
210	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
211	4.00	5.00	4.00	4.00	5.00	4.57	4.50	4.43	5.00	4.47										
212	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.40										
213	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.33										
214	5.00	5.00	4.00	4.00	5.00	4.57	4.80	4.71	5.00	4.53										
215	4.00	4.00	5.00	4.00	4.00	4.14	4.20	4.29	5.00	4.27										
216	4.00	4.00	5.00	4.00	4.00	4.29	4.40	4.29	5.00	4.13										
217	4.00	4.00	5.00	4.00	4.00	4.43	4.50	4.14	5.00	4.33										
218	4.00	4.00	5.00	5.00	4.00	3.43	4.40	4.43	5.00	4.13										
219	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.13										
220	3.00	3.00	2.00	2.00	2.00	4.29	4.30	3.00	5.00	4.13										
221	4.00	3.00	3.00	2.00	2.00	2.86	2.90	3.29	5.00	4.07										
222	4.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.33										
223	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.33										
224	5.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.27										
225	4.00	4.00	5.00	4.00	4.00	4.43	4.30	4.29	5.00	4.27										
226	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.33										
227	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
228	5.00	4.00	4.00	5.00	4.00	4.43	4.50	4.43	5.00	4.40										
229	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.27										
230	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.27										
231	4.00	4.00	5.00	4.00	4.00	4.43	4.20	4.29	5.00	4.27										
232	4.00	4.00	5.00	5.00	5.00	3.57	4.50	4.57	5.00	4.53										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
233	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
234	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	5.00	3.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00
235	1.00	1.00	1.00	1.00	1.00	2.00	1.00	3.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	4.00	4.00
236	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
237	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	1.00	4.00	3.00
238	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	2.00	4.00	1.00	4.00	4.00
239	1.00	1.00	1.00	1.00	1.00	2.00	1.00	3.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
240	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
241	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	5.00	4.00
242	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
243	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	1.00	5.00	4.00
244	1.00	1.00	1.00	1.00	1.00	2.00	1.00	3.00	4.00	3.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
245	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	1.00	4.00	3.00
246	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	4.00	5.00
247	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	5.00	5.00	4.00	2.00	4.00	2.00	2.00	2.00	5.00	5.00	4.00	1.00	4.00	4.00
248	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	4.00
249	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	1.00	4.00	5.00
250	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	1.00	5.00	3.00
251	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	1.00	5.00	5.00
252	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	1.00	4.00	5.00
253	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	1.00	3.00	2.00
254	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	1.00	5.00	4.00
255	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	3.00	4.00
256	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	3.00	4.00	5.00	5.00	1.00	4.00	4.00
257	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00
258	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
259	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
260	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	3.00	1.00	3.00	4.00	2.00	4.00	4.00	5.00	4.00	3.00	5.00	1.00	3.00	4.00
261	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	1.00	5.00	5.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
233	5.00	5.00	4.00	4.00	4.00	2.00	2.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
234	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00
235	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
236	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
237	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	3.00	4.00	5.00	4.00	3.00	4.00	4.00	4.00	4.00	5.00	3.00	3.00	5.00	4.00
238	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00
239	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
240	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
241	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00
242	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00
243	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00
244	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	3.00	4.00	5.00	4.00	3.00	4.00
245	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
246	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
247	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00
248	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00
249	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
250	3.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
251	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
252	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00
253	3.00	5.00	5.00	4.00	3.00	3.00	3.00	3.00	5.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	3.00	3.00	5.00	5.00	4.00	4.00
254	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
255	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00
256	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00
257	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
258	4.00	4.00	4.00	3.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00
259	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00
260	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
261	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
233	4.00	4.00	5.00	5.00	4.00	3.57	4.50	4.43	5.00	4.53										
234	5.00	4.00	4.00	4.00	5.00	4.57	4.60	4.43	5.00	4.47										
235	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.47										
236	4.00	5.00	5.00	4.00	4.00	4.43	4.60	4.43	5.00	4.53										
237	5.00	4.00	3.00	2.00	4.00	4.43	4.00	3.43	5.00	4.27										
238	5.00	4.00	4.00	5.00	4.00	4.14	4.50	4.43	5.00	4.07										
239	4.00	5.00	4.00	4.00	5.00	4.43	4.60	4.43	5.00	4.40										
240	5.00	4.00	4.00	5.00	4.00	4.43	4.30	4.43	5.00	4.27										
241	5.00	5.00	5.00	4.00	5.00	4.57	4.60	4.71	5.00	4.60										
242	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.33										
243	5.00	4.00	5.00	4.00	4.00	4.43	4.50	4.43	5.00	4.33										
244	3.00	4.00	4.00	4.00	4.00	4.43	4.20	4.00	5.00	4.20										
245	4.00	4.00	5.00	5.00	4.00	4.43	4.50	4.43	5.00	4.13										
246	5.00	5.00	5.00	5.00	5.00	4.57	4.70	5.00	5.00	4.87										
247	5.00	5.00	4.00	4.00	5.00	4.71	4.30	4.71	5.00	3.80										
248	5.00	5.00	4.00	5.00	4.00	4.43	4.40	4.57	5.00	4.60										
249	5.00	4.00	4.00	5.00	5.00	4.57	4.60	4.71	5.00	4.73										
250	4.00	5.00	5.00	5.00	5.00	4.57	4.60	4.71	5.00	4.27										
251	5.00	4.00	5.00	4.00	5.00	4.71	4.70	4.71	5.00	4.60										
252	5.00	4.00	4.00	5.00	5.00	4.71	4.40	4.71	5.00	4.60										
253	4.00	4.00	3.00	3.00	5.00	3.71	3.90	4.14	5.00	4.20										
254	4.00	5.00	5.00	5.00	4.00	4.29	4.50	4.57	5.00	4.60										
255	4.00	4.00	4.00	4.00	4.00	4.57	4.40	4.29	5.00	4.47										
256	5.00	5.00	4.00	4.00	3.00	4.43	4.60	4.43	5.00	4.40										
257	5.00	5.00	4.00	5.00	4.00	4.71	4.40	4.71	5.00	4.33										
258	5.00	5.00	4.00	4.00	4.00	4.43	4.70	4.43	5.00	4.53										
259	4.00	4.00	5.00	5.00	5.00	4.29	4.40	4.57	5.00	4.27										
260	5.00	4.00	5.00	5.00	5.00	4.43	4.60	4.86	5.00	3.53										
261	5.00	5.00	5.00	4.00	4.00	4.43	4.10	4.57	5.00	4.47										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
262	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	4.00	4.00	4.00	5.00	3.00	4.00	5.00	5.00	4.00	5.00	5.00	1.00	4.00	5.00
263	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	1.00	4.00	4.00
264	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	4.00	3.00	3.00	2.00	3.00	4.00	4.00	3.00	4.00	4.00	4.00	1.00	5.00	4.00
265	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	4.00
266	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
267	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	1.00	5.00	5.00
268	1.00	1.00	1.00	2.00	2.00	2.00	1.00	3.00	3.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	5.00	4.00
269	1.00	1.00	1.00	2.00	2.00	2.00	1.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	4.00	5.00
270	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	3.00	2.00	1.00	4.00	4.00
271	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	2.00	2.00	1.00	1.00	4.00	4.00
272	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	5.00	4.00
273	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
274	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	1.00	5.00	4.00
275	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
276	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
277	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
278	1.00	1.00	1.00	1.00	2.00	2.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
279	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	1.00	5.00	4.00
280	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
281	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	1.00	4.00	4.00
282	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	4.00
283	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
284	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
285	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	3.00	3.00
286	1.00	1.00	1.00	2.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	1.00	4.00	4.00
287	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
288	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	3.00	4.00
289	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
290	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
262	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	3.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
263	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
264	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	3.00	3.00	3.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00
265	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00
266	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
267	4.00	5.00	4.00	4.00	4.00	2.00	1.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00
268	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	2.00	3.00	4.00	2.00	4.00	4.00	4.00	4.00	3.00	3.00	4.00	4.00	5.00	4.00
269	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00
270	5.00	5.00	5.00	5.00	4.00	2.00	3.00	3.00	5.00	5.00	5.00	4.00	3.00	2.00	2.00	2.00	3.00	2.00	5.00	3.00	2.00	1.00
271	4.00	5.00	4.00	5.00	5.00	2.00	2.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
272	5.00	5.00	4.00	4.00	4.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00
273	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
274	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
275	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00
276	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
277	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00
278	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00
279	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00
280	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
281	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
282	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
283	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00
284	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
285	4.00	4.00	3.00	3.00	2.00	3.00	4.00	3.00	4.00	3.00	2.00	4.00	3.00	4.00	2.00	3.00	4.00	3.00	4.00	3.00	4.00	3.00
286	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00
287	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00
288	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
289	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
290	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
262	4.00	4.00	4.00	5.00	5.00	4.43	4.20	4.43	5.00	4.40										
263	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.57	5.00	3.93										
264	4.00	4.00	4.00	4.00	4.00	4.57	3.90	3.86	5.00	3.73										
265	4.00	4.00	4.00	5.00	5.00	4.14	3.80	4.29	5.00	4.73										
266	4.00	4.00	4.00	3.00	2.00	4.43	4.40	3.71	5.00	4.27										
267	5.00	5.00	5.00	4.00	4.00	3.43	4.40	4.57	5.00	4.53										
268	5.00	4.00	4.00	5.00	5.00	4.43	3.30	4.43	5.00	3.87										
269	5.00	5.00	5.00	4.00	4.00	3.57	4.50	4.43	5.00	4.67										
270	2.00	1.00	5.00	4.00	2.00	3.86	3.30	3.14	5.00	4.33										
271	4.00	4.00	4.00	5.00	5.00	4.00	4.40	4.43	5.00	3.93										
272	5.00	4.00	4.00	4.00	4.00	3.43	4.50	4.43	5.00	4.67										
273	4.00	5.00	4.00	4.00	4.00	4.29	4.50	4.29	5.00	4.47										
274	4.00	5.00	5.00	4.00	4.00	4.43	4.40	4.43	5.00	4.47										
275	5.00	4.00	4.00	5.00	4.00	4.57	4.40	4.29	5.00	4.47										
276	5.00	4.00	4.00	4.00	5.00	4.29	4.20	4.57	5.00	4.27										
277	5.00	4.00	5.00	4.00	4.00	4.57	4.50	4.29	5.00	4.33										
278	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.47										
279	4.00	5.00	4.00	4.00	5.00	4.71	4.40	4.43	5.00	4.47										
280	5.00	5.00	5.00	5.00	5.00	4.71	4.90	5.00	5.00	5.00										
281	4.00	5.00	4.00	4.00	4.00	4.57	4.40	4.29	5.00	4.47										
282	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.40										
283	5.00	4.00	5.00	5.00	4.00	4.43	4.40	4.57	5.00	4.20										
284	4.00	5.00	4.00	4.00	4.00	4.43	4.40	4.29	5.00	4.33										
285	4.00	3.00	4.00	3.00	4.00	3.14	3.20	3.57	5.00	4.07										
286	4.00	5.00	5.00	4.00	4.00	4.43	4.30	4.43	5.00	4.40										
287	5.00	4.00	4.00	4.00	5.00	4.57	4.30	4.43	5.00	4.40										
288	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.20										
289	4.00	5.00	4.00	5.00	4.00	4.43	4.40	4.43	5.00	4.40										
290	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.47										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
291	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
292	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
293	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	1.00	5.00	4.00
294	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	4.00	3.00	4.00	4.00	4.00	4.00	3.00	4.00	3.00	4.00	1.00	5.00	4.00
295	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	5.00	5.00	5.00	5.00	3.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
296	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
297	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	1.00	5.00	5.00
298	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	5.00	5.00	5.00	4.00	5.00	3.00	5.00	4.00	5.00	4.00	1.00	5.00	5.00
299	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	1.00	3.00	5.00
300	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00	1.00	5.00	5.00
301	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	1.00	5.00	4.00
302	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	1.00	3.00	5.00
303	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	1.00	5.00	5.00
304	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	3.00	5.00
305	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
306	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	1.00	5.00	5.00
307	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	5.00
308	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
309	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	1.00	5.00	5.00
310	1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	5.00	5.00	5.00	4.00	5.00	3.00	4.00	3.00	3.00	5.00	4.00	1.00	4.00	5.00
311	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	1.00	5.00	5.00
312	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	1.00	5.00	4.00
313	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	5.00
314	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	4.00	4.00	3.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	1.00	5.00	5.00
315	1.00	1.00	1.00	1.00	2.00	2.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	3.00
316	1.00	1.00	1.00	1.00	3.00	2.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	3.00	3.00
317	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	1.00	4.00	4.00
318	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	5.00
319	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
291	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
292	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
293	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00
294	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00
295	5.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
296	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00
297	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00
298	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00
299	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00
300	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
301	4.00	5.00	5.00	3.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
302	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	3.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
303	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00
304	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00
305	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00
306	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
307	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00
308	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00
309	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00
310	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	2.00	3.00	5.00	2.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00
311	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00
312	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	3.00	4.00
313	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
314	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
315	2.00	4.00	4.00	5.00	4.00	3.00	2.00	3.00	4.00	4.00	5.00	4.00	3.00	2.00	3.00	3.00	2.00	2.00	5.00	4.00	3.00	2.00
316	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00
317	5.00	5.00	4.00	4.00	4.00	2.00	1.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00
318	5.00	4.00	4.00	4.00	4.00	4.00	2.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00
319	4.00	4.00	4.00	5.00	5.00	4.00	3.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
291	4.00	5.00	5.00	4.00	4.00	4.43	4.40	4.43	5.00	4.40										
292	5.00	5.00	5.00	5.00	4.00	4.57	5.00	4.86	5.00	5.00										
293	5.00	5.00	5.00	5.00	5.00	4.86	4.60	4.71	5.00	4.67										
294	5.00	5.00	5.00	5.00	5.00	4.57	4.70	5.00	5.00	4.07										
295	5.00	4.00	5.00	5.00	4.00	4.43	4.40	4.71	5.00	4.40										
296	5.00	5.00	5.00	4.00	5.00	4.29	4.70	4.57	5.00	4.73										
297	5.00	4.00	4.00	5.00	5.00	4.71	4.80	4.71	5.00	4.60										
298	5.00	4.00	4.00	5.00	5.00	5.00	4.80	4.71	5.00	4.60										
299	5.00	5.00	5.00	5.00	5.00	4.71	4.60	4.86	5.00	4.53										
300	5.00	4.00	4.00	4.00	5.00	4.57	4.60	4.57	5.00	4.47										
301	5.00	5.00	4.00	5.00	5.00	4.43	5.00	4.86	5.00	4.73										
302	4.00	5.00	4.00	4.00	4.00	4.43	4.50	4.29	5.00	4.67										
303	4.00	5.00	4.00	4.00	4.00	4.43	4.60	4.29	5.00	4.60										
304	5.00	5.00	5.00	4.00	4.00	4.57	4.60	4.71	5.00	4.47										
305	4.00	4.00	5.00	5.00	4.00	4.29	4.50	4.29	5.00	4.47										
306	4.00	5.00	5.00	4.00	5.00	4.43	4.20	4.57	5.00	4.73										
307	5.00	4.00	5.00	4.00	4.00	4.29	4.80	4.57	5.00	4.47										
308	5.00	5.00	5.00	5.00	5.00	4.71	4.50	5.00	5.00	4.53										
309	5.00	5.00	5.00	4.00	4.00	4.57	4.70	4.57	5.00	4.60										
310	5.00	5.00	4.00	4.00	5.00	4.43	3.70	4.43	5.00	4.33										
311	4.00	4.00	4.00	4.00	5.00	4.57	4.50	4.14	5.00	4.53										
312	3.00	4.00	3.00	4.00	2.00	4.14	4.40	3.43	5.00	4.33										
313	4.00	4.00	4.00	5.00	5.00	4.29	4.60	4.57	5.00	4.47										
314	4.00	4.00	4.00	4.00	4.00	4.43	4.60	4.14	5.00	4.60										
315	3.00	2.00	2.00	2.00	3.00	3.57	3.20	3.00	5.00	4.07										
316	5.00	4.00	4.00	5.00	4.00	4.29	4.40	4.29	5.00	4.27										
317	5.00	4.00	5.00	4.00	4.00	3.57	4.50	4.43	5.00	4.47										
318	4.00	4.00	5.00	5.00	5.00	3.71	4.30	4.57	5.00	4.47										
319	4.00	4.00	3.00	2.00	2.00	4.14	4.40	3.43	5.00	4.60										

	undergraduate	knowledge	institution	gender	age	ethnic	location	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
320	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
321	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
322	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
323	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	1.00	5.00	4.00
324	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
325	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
326	1.00	1.00	1.00	2.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
327	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
328	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
329	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
330	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	1.00	4.00	4.00
331	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	1.00	5.00	4.00
332	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	2.00	1.00	4.00	4.00
333	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
334	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
335	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
336	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
337	1.00	1.00	1.00	2.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	4.00	4.00
338	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
339	1.00	1.00	1.00	2.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
340	1.00	1.00	1.00	2.00	1.00	3.00	1.00	1.00	4.00	4.00	4.00	4.00	3.00	5.00	4.00	5.00	5.00	3.00	4.00	1.00	5.00	5.00
341	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	2.00
342	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
343	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	1.00	4.00	5.00
344	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	1.00	5.00	4.00
345	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
346	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
347	1.00	1.00	1.00	2.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
348	1.00	1.00	1.00	2.00	1.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	3.00	2.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
320	5.00	5.00	4.00	4.00	5.00	2.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00
321	5.00	5.00	4.00	4.00	5.00	2.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
322	5.00	5.00	4.00	4.00	4.00	2.00	1.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
323	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
324	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00
325	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00
326	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
327	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00
328	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00
329	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00
330	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
331	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00
332	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00
333	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
334	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
335	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00
336	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
337	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
338	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00
339	4.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
340	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	3.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	5.00
341	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00
342	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00
343	3.00	5.00	4.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
344	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	2.00	2.00	2.00	4.00	2.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00
345	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00
346	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00
347	2.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	2.00	2.00	3.00	2.00	1.00	2.00	3.00	5.00	4.00	4.00	4.00
348	1.00	4.00	4.00	3.00	2.00	1.00	2.00	2.00	4.00	4.00	4.00	2.00	2.00	2.00	3.00	2.00	2.00	1.00	4.00	4.00	2.00	3.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
320	4.00	5.00	4.00	4.00	5.00	3.86	4.50	4.43	5.00	4.47										
321	4.00	4.00	4.00	4.00	4.00	3.86	4.60	4.14	5.00	4.73										
322	4.00	5.00	5.00	4.00	4.00	3.43	4.50	4.43	5.00	4.93										
323	4.00	4.00	4.00	5.00	5.00	4.71	4.40	4.43	5.00	4.40										
324	5.00	5.00	5.00	4.00	4.00	4.57	4.70	4.43	5.00	4.13										
325	5.00	4.00	4.00	5.00	4.00	4.29	4.30	4.29	5.00	4.27										
326	4.00	4.00	5.00	5.00	4.00	4.43	4.40	4.43	5.00	4.40										
327	4.00	4.00	5.00	5.00	5.00	4.29	4.30	4.57	5.00	4.40										
328	5.00	4.00	4.00	4.00	4.00	4.43	4.40	4.29	5.00	4.40										
329	5.00	4.00	5.00	4.00	5.00	4.57	4.50	4.57	5.00	4.33										
330	4.00	5.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	4.53										
331	4.00	5.00	4.00	5.00	5.00	4.57	4.50	4.57	5.00	4.60										
332	5.00	5.00	4.00	4.00	5.00	4.43	4.50	4.57	5.00	4.20										
333	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.40										
334	5.00	5.00	5.00	4.00	5.00	5.00	4.80	4.86	5.00	4.93										
335	4.00	5.00	4.00	5.00	4.00	4.29	4.40	4.43	5.00	4.40										
336	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.27										
337	4.00	4.00	5.00	5.00	4.00	4.43	4.40	4.43	5.00	4.40										
338	4.00	4.00	5.00	4.00	4.00	4.43	4.50	4.29	5.00	4.47										
339	4.00	5.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	4.33										
340	5.00	5.00	4.00	4.00	4.00	4.71	4.40	4.57	5.00	4.27										
341	4.00	4.00	5.00	4.00	4.00	4.14	4.30	4.29	5.00	4.07										
342	5.00	4.00	4.00	5.00	5.00	4.29	4.30	4.43	5.00	4.20										
343	4.00	5.00	4.00	4.00	4.00	4.43	4.30	4.29	5.00	4.27										
344	4.00	4.00	2.00	4.00	4.00	4.29	3.00	3.71	5.00	4.33										
345	4.00	4.00	5.00	5.00	4.00	4.43	4.40	4.43	5.00	4.27										
346	4.00	4.00	5.00	5.00	4.00	4.29	4.30	4.43	5.00	4.33										
347	4.00	4.00	5.00	4.00	4.00	4.29	2.80	4.29	5.00	4.13										
348	2.00	3.00	2.00	1.00	2.00	2.57	2.60	2.57	5.00	3.87										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
349	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	2.00
350	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
351	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	3.00	3.00	1.00	3.00	4.00
352	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
353	1.00	1.00	1.00	2.00	2.00	3.00	1.00	4.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
354	1.00	1.00	1.00	1.00	2.00	3.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	3.00	2.00	4.00	5.00	1.00	4.00	4.00
355	1.00	1.00	1.00	1.00	2.00	3.00	1.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	1.00	5.00	5.00
356	1.00	1.00	1.00	2.00	2.00	3.00	1.00	1.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	1.00	4.00	5.00
357	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	1.00	4.00	2.00
358	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
359	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	1.00	4.00	4.00
360	1.00	1.00	1.00	2.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
361	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	1.00	5.00	5.00
362	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	1.00	4.00	5.00
363	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	1.00	4.00	4.00
364	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
365	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
366	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
367	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
368	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
369	1.00	1.00	1.00	1.00	2.00	3.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	1.00	4.00	4.00
370	1.00	1.00	1.00	2.00	2.00	3.00	1.00	3.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	3.00	4.00	4.00	1.00	4.00	4.00
371	1.00	1.00	1.00	2.00	2.00	3.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
372	1.00	1.00	1.00	1.00	2.00	3.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	5.00
373	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	1.00	5.00	5.00
374	1.00	1.00	1.00	1.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	1.00	5.00	4.00
375	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
376	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	1.00	4.00	5.00
377	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	1.00	4.00	4.00

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
349	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	3.00	3.00	4.00	4.00	3.00	4.00	4.00	4.00	3.00	5.00	4.00	4.00	4.00
350	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00
351	4.00	5.00	4.00	2.00	4.00	4.00	4.00	2.00	4.00	4.00	4.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	5.00	4.00	4.00	4.00
352	5.00	5.00	4.00	4.00	5.00	1.00	1.00	4.00	5.00	4.00	5.00	5.00	4.00	3.00	3.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
353	5.00	5.00	4.00	4.00	4.00	1.00	2.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	2.00	2.00	2.00	4.00	4.00
354	4.00	4.00	4.00	4.00	4.00	5.00	1.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
355	5.00	5.00	5.00	5.00	5.00	2.00	2.00	5.00	5.00	5.00	2.00	2.00	2.00	1.00	2.00	4.00	2.00	2.00	5.00	4.00	4.00	2.00
356	4.00	5.00	4.00	5.00	5.00	2.00	2.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00
357	2.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00
358	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
359	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00
360	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00
361	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00
362	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00
363	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00
364	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00
365	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
366	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	3.00	2.00	3.00
367	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
368	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
369	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
370	5.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00
371	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00
372	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
373	5.00	5.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00
374	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
375	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
376	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00
377	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00

	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
349	4.00	4.00	4.00	4.00	4.00	4.43	3.60	4.14	5.00	4.00										
350	4.00	5.00	4.00	4.00	4.00	4.43	4.40	4.29	5.00	4.33										
351	4.00	4.00	5.00	5.00	5.00	3.57	2.40	4.57	5.00	4.07										
352	5.00	4.00	4.00	4.00	4.00	3.43	4.10	4.29	5.00	4.93										
353	4.00	4.00	2.00	4.00	3.00	3.57	4.20	3.00	5.00	4.13										
354	4.00	4.00	5.00	5.00	5.00	3.86	4.40	4.57	5.00	4.07										
355	4.00	2.00	2.00	4.00	2.00	4.14	2.70	3.29	5.00	4.73										
356	4.00	4.00	5.00	5.00	4.00	3.86	4.60	4.43	5.00	4.53										
357	5.00	5.00	4.00	4.00	5.00	4.14	4.40	4.43	5.00	4.13										
358	4.00	5.00	5.00	4.00	4.00	4.29	4.40	4.43	5.00	4.33										
359	5.00	4.00	4.00	5.00	4.00	4.14	4.30	4.29	5.00	4.27										
360	4.00	5.00	4.00	5.00	4.00	4.43	4.40	4.43	5.00	4.40										
361	5.00	4.00	4.00	4.00	4.00	4.43	4.40	4.14	5.00	4.47										
362	4.00	5.00	4.00	4.00	5.00	4.43	4.30	4.43	5.00	4.47										
363	4.00	5.00	4.00	4.00	5.00	4.43	4.30	4.43	5.00	4.40										
364	4.00	5.00	4.00	4.00	5.00	4.43	4.40	4.43	5.00	4.33										
365	5.00	5.00	5.00	5.00	5.00	4.86	4.50	5.00	5.00	4.87										
366	2.00	3.00	3.00	3.00	4.00	4.43	4.30	3.14	5.00	4.33										
367	5.00	4.00	5.00	5.00	3.00	4.43	4.30	4.43	5.00	4.33										
368	4.00	4.00	5.00	4.00	4.00	4.43	4.30	4.29	5.00	4.33										
369	4.00	4.00	5.00	4.00	4.00	4.43	4.40	4.29	5.00	4.47										
370	5.00	4.00	4.00	5.00	4.00	4.43	4.40	4.43	5.00	4.33										
371	5.00	4.00	4.00	5.00	4.00	4.43	4.50	4.43	5.00	4.27										
372	4.00	4.00	5.00	5.00	4.00	4.43	4.50	4.43	5.00	4.40										
373	5.00	4.00	5.00	5.00	5.00	4.71	4.90	4.86	5.00	4.93										
374	4.00	5.00	4.00	4.00	5.00	4.43	4.50	4.43	5.00	4.47										
375	4.00	4.00	5.00	5.00	4.00	4.43	4.40	4.43	5.00	4.33										
376	4.00	5.00	4.00	4.00	4.00	4.29	4.40	4.29	5.00	4.40										
377	4.00	4.00	4.00	5.00	4.00	4.29	4.20	4.29	5.00	4.27										

	underg raduate	knowle dge	instituti on	gender	age	ethnic	locatio n	year	PCQ1	PCQ2	PCQ3	PCQ4	PCQ5	PCQ6	PCQ7	PCQ8	PCQ9	PCQ10	PCQ11	PCQ12	PCQ13	PCQ14
378	1.00	1.00	1.00	1.00	2.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
379	1.00	1.00	1.00	1.00	3.00	3.00	1.00	3.00	5.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	3.00	3.00
380	1.00	1.00	1.00	1.00	3.00	3.00	1.00	2.00	4.00	3.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	1.00	4.00	5.00
381	1.00	1.00	1.00	2.00	3.00	3.00	1.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	5.00
382	1.00	1.00	1.00	1.00	3.00	3.00	1.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
383	1.00	1.00	1.00	1.00	3.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
384	1.00	1.00	1.00	2.00	3.00	3.00	1.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	1.00	4.00	4.00
385	1.00	1.00	1.00	2.00	3.00	3.00	1.00	3.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	1.00	4.00	4.00
386	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.00	1.00	4.00	5.00
387	1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	1.00	4.00	4.00
388	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	4.00	5.00	5.00	5.00	4.00	5.00	3.00	3.00	3.00	4.00	5.00	1.00	4.00	5.00
389	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
390	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	4.00	4.00	3.00	5.00	3.00	5.00	4.00	4.00	1.00	5.00	5.00
391	1.00	1.00	1.00	1.00	1.00	3.00	2.00	3.00	1.00	3.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	2.00	1.00	4.00	5.00
392	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	1.00	5.00	4.00
393	1.00	1.00	1.00	1.00	1.00	3.00	1.00	5.00	5.00	4.00	5.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
394	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	5.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
395	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00
396	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00
397	1.00	1.00	1.00	1.00	2.00	3.00	2.00	2.00	4.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	4.00	1.00	3.00	4.00
398	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00
399	1.00	1.00	1.00	1.00	1.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
400	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00
401	1.00	1.00	1.00	1.00	1.00	3.00	2.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	4.00
402																						
403																						
404																						
405																						
406																						

	PCQ15	PPR1	PPR2	PPR3	PPR4	PPR5	PPR6	PPR7	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	BI1	BI2	BI3	BI4
378	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00
379	3.00	4.00	3.00	4.00	3.00	4.00	3.00	3.00	3.00	4.00	2.00	3.00	3.00	2.00	3.00	4.00	3.00	2.00	4.00	3.00	3.00	2.00
380	4.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
381	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	4.00
382	5.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
383	4.00	4.00	3.00	3.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
384	5.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	2.00
385	5.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00
386	5.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00
387	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00
388	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	5.00
389	5.00	5.00	5.00	5.00	3.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00	4.00
390	5.00	4.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	4.00	5.00
391	5.00	5.00	5.00	4.00	4.00	3.00	2.00	3.00	5.00	4.00	5.00	4.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00
392	4.00	4.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00
393	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	4.00	2.00	1.00	2.00	3.00	3.00
394	1.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00
395	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	4.00	2.00	2.00	2.00
396	2.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
397	4.00	4.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
398	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00
399	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
400	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
401	4.00	4.00	4.00	5.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00	4.00	4.00	4.00	2.00
402																						
403																						
404																						
405																						
406																						

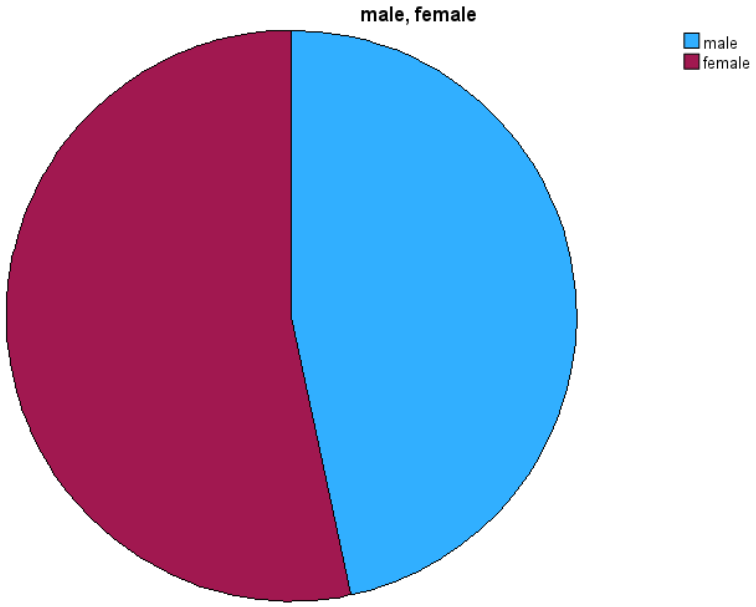
	BI3	BI4	BI5	BI6	BI7	PPR	T	BI	NegPCQ...	PCQ	var	var	var	var	var	var	var	var	var	var
378	4.00	4.00	5.00	5.00	4.00	4.43	4.40	4.43	5.00	4.33										
379	3.00	2.00	3.00	3.00	2.00	3.43	2.90	2.86	5.00	4.13										
380	4.00	4.00	5.00	4.00	5.00	4.43	4.40	4.43	5.00	4.20										
381	4.00	4.00	4.00	5.00	4.00	4.29	4.50	4.29	5.00	4.40										
382	4.00	4.00	4.00	5.00	4.00	4.43	4.30	4.29	5.00	4.27										
383	4.00	4.00	5.00	4.00	4.00	3.71	4.30	4.29	5.00	4.20										
384	4.00	2.00	2.00	4.00	4.00	4.29	4.40	3.43	5.00	4.33										
385	4.00	4.00	5.00	4.00	4.00	4.29	4.30	4.29	5.00	4.27										
386	5.00	4.00	4.00	4.00	4.00	3.86	4.30	4.43	5.00	4.60										
387	4.00	4.00	4.00	4.00	5.00	4.00	4.30	4.14	5.00	4.47										
388	5.00	5.00	4.00	4.00	4.00	4.43	4.60	4.43	5.00	4.33										
389	4.00	4.00	5.00	4.00	5.00	4.43	4.50	4.43	5.00	4.73										
390	4.00	5.00	4.00	4.00	5.00	4.43	4.60	4.43	5.00	4.33										
391	4.00	5.00	5.00	5.00	5.00	3.71	4.70	4.57	5.00	4.00										
392	5.00	5.00	4.00	5.00	4.00	4.43	4.70	4.71	5.00	4.40										
393	3.00	3.00	2.00	3.00	3.00	1.00	2.50	2.43	5.00	2.27										
394	5.00	5.00	5.00	5.00	5.00	4.14	4.50	4.71	5.00	1.60										
395	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.29	5.00	2.27										
396	5.00	5.00	5.00	5.00	4.00	4.14	4.20	4.86	5.00	2.20										
397	4.00	4.00	4.00	4.00	4.00	4.14	4.00	4.00	5.00	2.93										
398	1.00	1.00	1.00	1.00	1.00	1.86	2.40	1.14	5.00	2.00										
399	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	3.47										
400	2.00	1.00	2.00	2.00	2.00	2.00	1.90	1.86	5.00	2.13										
401	4.00	2.00	2.00	2.00	4.00	4.00	3.80	3.14	5.00	4.07										
402																				
403																				
404																				
405																				
406																				

Appendix 7: Demographic Profile Frequency

Gender

male, female

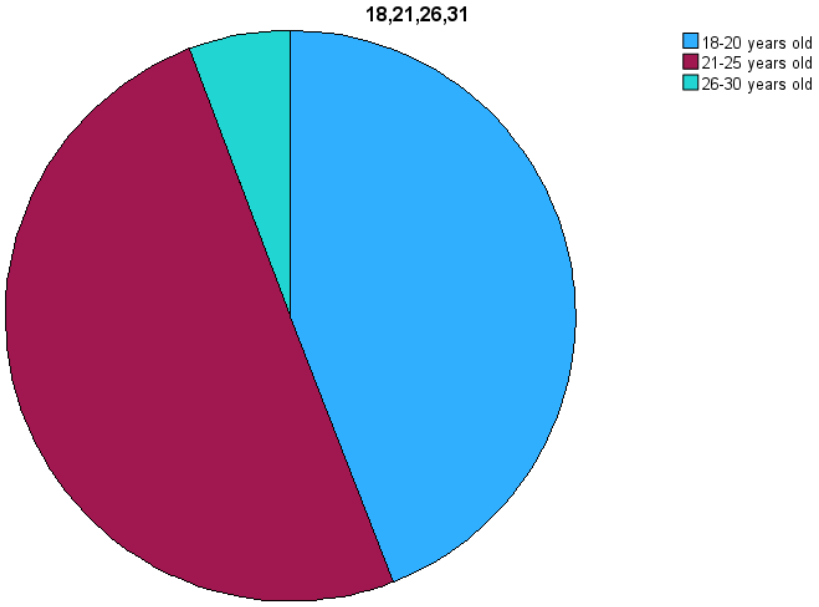
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	187	46.6	46.6	46.6
	female	214	53.4	53.4	100.0
	Total	401	100.0	100.0	



Age

18,21,26,31

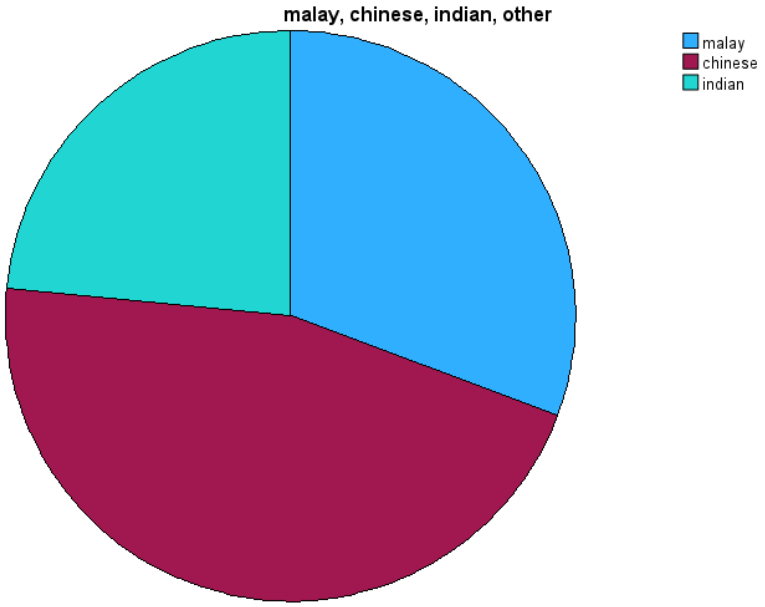
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20 years old	177	44.1	44.1	44.1
	21-25 years old	201	50.1	50.1	94.3
	26-30 years old	23	5.7	5.7	100.0
	Total	401	100.0	100.0	



Ethnic

malay, chinese, indian, other

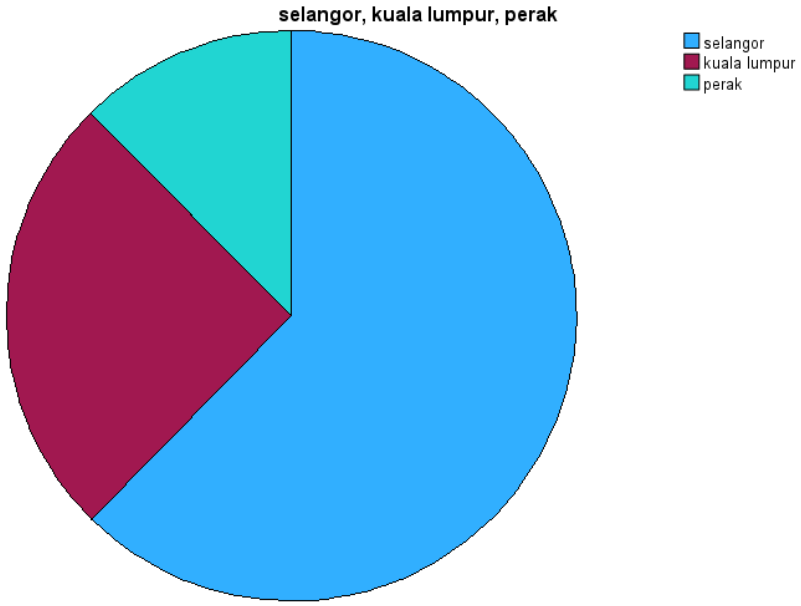
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	malay	123	30.7	30.7	30.7
	chinese	184	45.9	45.9	76.6
	indian	94	23.4	23.4	100.0
	Total	401	100.0	100.0	



States

selangor, kuala lumpur, perak

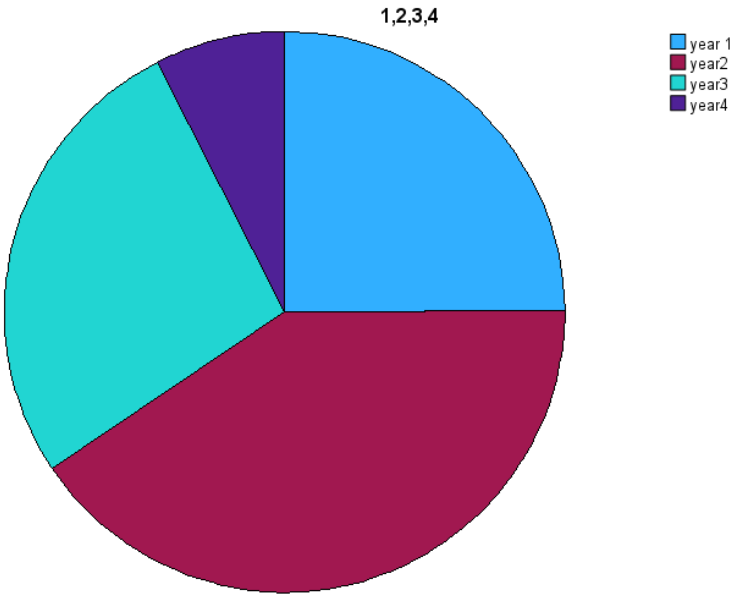
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	selangor	250	62.3	62.3	62.3
	kuala lumpur	101	25.2	25.2	87.5
	perak	50	12.5	12.5	100.0
	Total	401	100.0	100.0	



Academic Year

1,2,3,4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	year 1	100	24.9	24.9	24.9
	year2	163	40.6	40.6	65.6
	year3	108	26.9	26.9	92.5
	year4	30	7.5	7.5	100.0
	Total	401	100.0	100.0	



Appendix 8: Central Tendencies Measurement Result of Construct

Statistics

		PCQ	PPR	T	BI
N	Valid	401	401	401	401
	Missing	0	0	0	0
Mean		4.3102	4.2846	4.3526	4.3477
Std. Deviation		.45749	.53998	.52316	.56562

Appendix 9: Reliability Analysis Results for Pilot Test

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.864	.862	15

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.784	.766	7

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.896	.900	10

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.892	.896	10

Appendix 10: Multiple Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.776[a]	.603	.600	.35785

a. Predictors: (Constant), T, PCQ, PPR

b. Dependent Variable: BI

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.132	3	25.711	200.777	<.001[b]
	Residual	50.838	397	.128		
	Total	127.969	400			

a. Dependent Variable: BI

b. Predictors: (Constant), T, PCQ, PPR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.427	.180		2.376	.018
	PCQ	.040	.053	.033	.760	.448
	PPR	.255	.049	.243	5.181	<.001
	T	.610	.051	.564	12.050	<.001

a. Dependent Variable: BI

Appendix 11: Questionnaire for Perceived Communication Quality (1st Independent Variable) from Song et al. (2022)

Variable		Item
Perceived communication quality	Accuracy	I feel the customer service replies me timely.
		I feel the customer service replies me accurately.
		I feel the customer service replies me completely.
	Credibility	I feel the customer service replies me sincerely.
		I feel the customer service replies me reliably.
	Openness	I can easily have a free communication with customer service.
		I can express what I want to express with customer service.
		I can easily understand the replies from customer service.
	Attraction	I feel the customer service attitude is very friendly.
		I want to continue communication with customer service.
		I can make the right purchase decision based on my conversations with customer service.
		I don't think the customer service can solve the problem well.
	Communication capability	I feel this kind of customer service can deal with complex problems more efficiently than offline stores.
		I feel this kind of customer service can deal with complex problems more efficiently than other forms of service.
		I feel this kind of customer service has saved me a lot of decision-making time.

Appendix 12: Questionnaire for Perceived Privacy Risk (2nd Independent Variable) from Jiang et al. (2022)

Privacy Perception (PP)	PP1	I think of privacy as a right that I can control and use.	Dinev and Hart, 2004; Workman et al., 2008
	PP2	Controlling privacy is very important to me.	
	PP3	I think it's very important to know how my personal information is being used.	
	PP4	When an online learning platform asks me to provide personal information, I need to weigh the risk.	
Risk Perception (RP)	RP1	I think there are risks in using online learning.	Pavlou, 2003; Xu et al., 2011b
	RP2	I think the use of online learning increases the risk of personal privacy breaches.	
	RP3	I am concerned about privacy breaches due to an attack on the online learning platform.	

Appendix 13: Questionnaire for Trustworthiness (3rd Independent Variable) from Choung et al. (2022) and Nguyen et al. (2023)

Functionality trust in smart technologies (Study 2)	Smart technologies work well. (Competence) Smart technologies have the features necessary to complete key tasks. (Competence) Smart technologies are competent in their area of expertise. (Competence) Smart technologies are reliable. (Competence) Smart technologies are dependable. (Competence)	1 (strongly disagree) – 5 (strongly agree)	N/A	α = .91

Trust in AI	AI chatbot provide information about hotel according to my preferences I trust AI chatbot will take care of me I trust people are safe when interacting with AI chatbot I trust AI chatbot will deliver the best services I trust AI chatbot will recommend the best services based on my needs and demands I trust AI chatbot will offer more efficient services than human beings I trust AI chatbot will offer a modern look to service firms	Pelau *et al.* (2021)

Appendix 14: Questionnaire for Behavioural Intention (Dependnt Variable) from Choung et al. (2022) and Chai et al. (2021)

Behavioral intention of non-users (Study 1 & Study 2)	I intend to use [AI virtual assistants/AI smart technologies] in a future I predict that I would use [AI virtual assistants/AI smart technologies] Using [AI virtual assistants/AI smart technologies] is something I would do in a future.	1 (strongly disagree) – 5 (strongly agree)	α = .98	α = .91
Behavioral intention of users (Study 1 & Study 2)	I intend to continue using [AI virtual assistants/AI smart technologies] I predict that I would continue using [AI virtual assistanst/AI smart technologies] Using [AI virtual assistants/AI smart technologies] is something I would continue to do.		α = .95	

Behavioral intention, α = 0.90, M = 3.51, SD = 0.67	
BI3 I will continue to acquire AI-related information.	0.94
BI2 I will keep myself updated with the latest AI applications.	0.89
BI4 I intend to use AI to assist with my learning.	0.62
BI1 I will continue to learn AI.	0.52

Appendix 15: Ethical Clearance Form

UNIVERSITI TUNKU ABDUL RAHMAN			
Form Title: **APPLICATION FOR ETHICAL CLEARANCE TO INVOLVE HUMAN SUBJECTS FOR UNDERGRADUATE STUDENT'S PROJECT (GROUP APPLICATION)**			
Form Number : **FM-IPSR-R&D-078**	Rev No : 0	Effective Date: **09/05/2019**	Page No : **1 of 4**

(APPENDIX J2)

Application No.
(Official use only)

Summary of Application for Ethical Clearance to Involve Human Subjects for Undergraduate Student's Project

Programme Name: BA
Code & Title of Course: UBMZ3016

**Please attach a copy of the survey questionnaire/interview questions for every project listed below.*

No	Student Name	Supervisor Name	Project Title	Brief Description of Project	Brief Description of Questionnaire/ Interview Questions	Supervisor's Signature
1	BA7/2024 1. SEOW YIN JEH [2104333] 2. KHEOW KAR LIN [2005336]	Dr. SEOW AI NA	Examining The Determinants And Perceptions Of Undergraduate Students In The Use Of Artificial Intelligence (Ai) Chatbot	The research aims to delve into the behavioural intention of undergraduate students pursuing the usage of AI chatbot.	Refer to the Appendix 1	SeowAiNa
2	MK002/2001 1. [Name][ID] 2. [Name][ID] 3. [Name][ID] 4. [Name][ID] 5. [Name][ID]					

INDEMNITY

I shall indemnify, defend and hold harmless UTAR from any or all claims, demands, losses, damages, costs and liabilities made by any third party due to or arising out of any acts, omission or negligence in carrying out this study.

DECLARATION

a) I will not initiate this research until I receive written approval from the UTAR Scientific & Ethical Review Committee and the regulatory authority or otherwise relevant authorities (if applicable).

b) I will not initiate any changes in protocol without prior written approval from UTAR Scientific and Ethical Review Committee except when it is necessary to reduce or eliminate risk to the subject.

c) I will promptly report any unexpected or serious adverse events, unanticipated problems or incidents that may occur in the course of this research.

d) I will take all necessary steps to maintain confidentiality of all information, samples and specimens about the volunteers. Data, samples and specimen obtained will be stored securely and will be made available only to the Principal Investigator and the research team, the UTAR Scientific and Ethical Review Committee, the sponsor and the regulatory authorities for the purpose of verifying the research procedures info and/or data

e) I declare that the name and other facts that might identify the volunteer will not appear when this study is presented or its results are published

f) I declare that there is no existing or potential conflict of interest for any of the investigators participating in this research.

g) I have read and understood, and hereby accept and agree to abide by UTAR Research Ethics & Code of Conduct and any applicable UTAR's Guidelines. I undertake that the information I have provided herein is complete and accurate and I agree to carry out the Project in accordance with the terms in the International Conference of Harmonization of Good Clinical Practice Guidelines. My involvement in this Project does not conflict with my University duties and I have no other conflict of interest to declare

h) I further agree that I shall abide by all instructions and directions issued by UTAR pertaining to all aspects of the research herein including but not restricted to suspending and ceasing of the research herein.

Remarks *(if any)* :

UNIVERSITI TUNKU ABDUL RAHMAN			
Form Title: **APPLICATION FOR ETHICAL CLEARANCE TO INVOLVE HUMAN SUBJECTS FOR UNDERGRADUATE STUDENT'S PROJECT (GROUP APPLICATION)**			
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Head of Department Signature _____ Date _____

Name of Head of Department: _____

RECOMMENDATION BY DEAN

Recommended / Not Recommended for Approval

Signature _____ Date _____

Name of Dean _____

RECOMMENDATION BY UTAR SCIENTIFIC & ETHICAL REVIEW COMMITTEE

Comments : _____

UTAR Scientific & Ethical Review Committee : Minutes No. _____

.....
Signature of Secretary

Name of Secretary: _____

UNIVERSITI TUNKU ABDUL RAHMAN			
Form Title: **APPLICATION FOR ETHICAL CLEARANCE TO INVOLVE HUMAN SUBJECTS FOR UNDERGRADUATE STUDENT'S PROJECT (GROUP APPLICATION)**			
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COMPLETED BY THE CHAIRMAN OF THE UTAR SCIENTIFIC & ETHICAL REVIEW COMMITTEE

Approved ☐

Approved subject to full review (of protocol, informed consent documents etc.) ☐

Not Approved ☐

Others (*please state*) ☐

_____ _____

Signature of Chairman Date:

Name of Chairman: