Understanding Undergraduate Student Probation:

A Mixed-Method Investigation of Contributing Factors at One University in Kazakhstan

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Manat Sergazina

This letter now confirms that your research project titled…

Understanding Student Probation: An Investigation of Contributing Factors

has been approved by the Graduate School of Education Ethics Committee of Nazarbayev University.

You may proceed with contacting your preferred research site and commencing your participant recruitment strategy.

Yours sincerely,

Dr. Ahmet Aypay, PhD

On behalf of:
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ABSTRACT

Student retention is a pressing issue in universities worldwide, yet little is known about why students leave universities in Kazakhstan and what measures universities are taking to mitigate the problem. This issue has serious implications for the socio-economic development of Kazakhstan and results in substantial financial losses within the higher education sector. The primary motivation for this study is to understand the underlying reasons why students encounter difficulties in completing their degrees. Therefore, the purpose of this explanatory sequential design study is to address this gap and provide insights for higher education institutions in Kazakhstan.

The study was conducted at one of the largest universities in Kazakhstan. An anonymized dataset comprising over 7,000 unique student records was analyzed to determine the impact of sociodemographic characteristics and secondary-level academic experiences on postsecondary academic performance, specifically university GPA and instances of academic probation. Additionally, eight administrators or staff members were interviewed to gain insights into their perceptions of the factors that influence academic performance at this institution and to assess whether they believe the university offers adequate student support. Finally, a focus group interview with six undergraduate students reveals student perspectives on contributing factors. The study reveals the impact of various sociodemographic factors, academic preparation, and organizational context of the institution contributing to academic probation. As a result, the institutional retention strategy at the examined university is assessed and recommendations for improvement are provided.

Аңдатпа

Бакалавриат студенттерінің академиялық сынақ мерзімін түсіну: Әсер етуші факторларды аралас әдіспен зерттеу

Студенттерді ұстап қалу бүкіл әлемдегі жоғары білім беру орындары үшін өзекті мәселе болып табылады, бірақ студенттердің Қазақстандағы университеттерде неліктен оқуын бітірмей кететін себептері және осы мәселені шешу үшін жоғары білім беру көшбасшылары қандай шаралар қабылдап жатқаны туралы мәлімет аз. Бұл Қазақстанның әлеуметтік-экономикалық дамуына ауыр әсер етеді және жоғары білім беру секторында айтарлықтай қаржылық шығындарды тудырады. Алайда, бұл зерттеудің негізгі мотивациясы – студенттердің жоғары білім алу жолында академиялық қиындықтарға тап болуының ықтимал себептерін түсіну. Осылайша, бұл зерттеудің мақсаты осы феноменді зерттеу және Қазақстанның жоғары оқу орындарына ұсыныстар беру болып табылады.

Бұл зерттеу Қазақстанның бір үлкен университетінде жүргізілді. 7000-нан астам студенттердің анонимді деректері әлеуметтік-демографиялық сипаттамалар мен орта мектептегі оқу үлгерімінің университеттегі академиялық нәтижелеріне, атап айтқанда, оқу үлгерімінің орташа балына және академиялық сынақ мерзіміне әсер ететінін анықтау үшін пайдаланылды. Одан кейін сегіз университет қызметкерлерімен сұхбат жүргізіліп, студенттердің академиялық нәтижелерін болжайтын факторлар туралы және университеттің жеткілікті қолдау көрсетуі жайлы олардың пікірлері жиналды. Соңында, алты бакалавриат студенттерімен фокус-топтық сұхбат студенттердің оқу үлгеріміне ықпал ететін факторларға деген көзқарасын анықтауға мүмкіндік берді.

Зерттеу нәтижесінде академиялық сынақ мерзіміне ықпал ететін әртүрлі әлеуметтік-демографиялық факторлардың, академиялық дайындықтың және

ұйымдастырушылық контексттің әсері анықталды. Қорытындылай келе, зерттелетін университетте институционалдық студенттерді ұстап қалу стратегиясы бағаланып, оны жақсарту бойынша ұсыныстар беріледі.

Аннотация

Академический испытательный срок: Исследование способствующих факторов

Удержание студентов является актуальной проблемой в университетах по всему миру, однако мало что известно о причинах отчисления студентов из университетов Казахстана и о том, что предпринимают университеты для решения этой проблемы. Это имеет серьезные последствия для социально-экономического развития Казахстана и приводит к значительным финансовым потерям в секторе высшего образования. Однако, основная мотивация данного исследования — понять потенциальные причины, по которым студенты сталкиваются с академическими трудностями на пути к получению высшего образования. Таким образом, цель данного исследования заключается в том, чтобы устранить данный пробел и предоставить рекомендации для высших учебных заведений Казахстана.

Данное исследование проводилось в одном крупном университете Казахстана. Анонимные данные студентов были использованы для определения того, влияют ли социально-демографические характеристики и школьное образование на академическую успеваемость в университете, а именно на средний балл успеваемости и попадание на академический испытательный срок. После этого было проведено интервью с восьмью руководителями и сотрудниками, чтобы узнать их мнение о том, какие факторы влияют на академическую успеваемость в данном учебном заведении, а также считают ли они, что университет оказывает достаточную поддержку студентам. Наконец, интервью в фокус-группе с шестью студентами бакалавриата позволило узнать взгляд студентов на факторы, способствующие успеваемости.

В результате исследования выявлено влияние различных социально-демографических факторов, академической подготовки и организационного контекста,

способствующих попаданию на академический испытательный срок. В заключении, оценивается институциональная стратегия удержания в исследуемом университете и предложены рекомендации по ее улучшению.

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1.1. Background to the Problem

The persistent issue of student departure remains a priority for higher education researchers, administrators, and policymakers across the globe. Despite continuous increase in postsecondary enrollments in Kazakhstan, the number of departed students has almost doubled from 60,700 students in 2020 to 112,200 students in 2022 (Bureau of National Statistics, 2022). Acknowledging the vital role of student persistence in attaining markers of student success and understanding the detrimental impact of student departure on institutional stability—enrollments, budgets, and public perceptions of quality—both emphasize the imperative for colleges and universities to take action to enhance student retention rates (Braxton, 2013).

Student departure has been a focus of research for more than 85 years (Braxton, 2000), yet only over the last four to five decades has there been a significant advancement in a deeper comprehension of the issue. Tinto's Model of Student Departure (1993) holds a paradigmatic stature having received over 2,271 citations based on Web of Science (2023) database and describes student departure as a longitudinal process entailing not only individual characteristics of students (family income, personality traits, prior educational experiences) but also academic and social integration, the key determinants of students' subsequent commitments to the institution and completion.

While college completion is the ultimate goal for policymakers, it cannot be achieved through widening participation alone. Unless the dedication to access is aligned with, if not surpassed by, a commitment to fostering student success, higher levels of educational attainment in the broader population will not be achieved (Braxton, 2013). According to Nguyen (2023), even with increased opportunities for low-income students to engage in

postsecondary education, their experiences within the collegiate environment often differ from those of their more affluent peers. Thus, the task of further investigating the influence of students' sociodemographic characteristics and past educational experiences on student success maintains its relevance in the field. However, it must be noted that exploring the former dimension, although important, is only the initial step, which must be followed by a meticulous investigation of organizational and environmental forces present at universities.

1.2. Problem Statement

Kazakhstan is the largest country in Central Asia and the ninth largest by land area in the world. With a population of 20 million, it is also one of the least densely populated countries globally. According to the Bureau of National Statistics (2022), while 151,700 students graduated with a university degree in 2023, 112,200 students did not. This indicates that one in five university students do not finish their degrees. Considering the average tuition fee of 480,000 tenge a year, the financial impact on the sector amounts to at least 54 billion tenge (120 million USD) in a single year. Alarmingly, in reporting these numbers, the bureau does not differentiate between those who simply transferred to another institution and those who dropped out indefinitely. Neither the administrative authorities nor the universities possess information about the underlying reasons for their departures.

Research on student departure in Central Asia is extremely scarce. In fact, there were only three studies pertaining to the topic in the context of Kazakhstan found. Faizullina et al. (2013) explored career intentions of medical students and determined causes of student departure, while a study by Shynarbek et al. (2021) predicted student dropout at an undergraduate computer science program using four binary classifiers. While the aforementioned studies focused on discipline-specific programs, Almukhambetova et al. (2022) identified factors determining retention of female students in STEM programs.

Although these studies, however few, have contributed notably to the general understanding of student departure in Kazakhstan, the prevalent emphasis of inquiry has been on students pursuing STEM majors. The main focus of this study, however, was to explore contributing factors to student probation regardless of discipline in order to understand the role of sociodemographic attributes on academic probation placement and the ultimate withdrawal from university. The reason behind focusing on academic probation was to identify potential departure risks at an early stage and determine whether specific pre-existing student characteristics can contribute to placement on probation.

In the broadest sense, the ultimate rationale for this study was inseparable from an understanding that students enter postsecondary education with varying degrees of intellectual capital courtesy of family background, prior educational experiences, and peer environments. As emphasized by Fischman and Gardner (2022), when opportunities to develop substantial self-efficacy and/or intellectual capacity do not occur "naturally," it is the responsibility of the higher education system to bridge these gaps. Therefore, in essence, the study attempted to understand how students' characteristics originating from systemic societal inequities contribute to student departure and what university leaders can do to account for these barriers and improve the preventative measures at their respective institutions.

1.3. Purpose of the Study and Research Questions

The overarching aim of this study was to investigate the factors contributing to student probation and subsequent withdrawal from higher education institutions. By focusing on the intricate interplay between precollege attributes and academic probation, the research seeks to provide an in-depth understanding of the multifaceted dynamics that underlie the negative learning outcome. This study aims to shed light on the pivotal role of sociodemographic characteristics and academic preparation in shaping students' postsecondary trajectories,

thereby refining existing theoretical frameworks and enhancing institutional strategies to increase student retention. The study plans to achieve its purpose by addressing the following research questions:

1. What student characteristics and academic experiences prior entering postsecondary institutions correlate with placement on academic probation?
2. What mechanisms are in place at the institution to prevent student departure?
3. How can the university improve its retention rates based on research results?

An established relationship between precollege attributes and academic probation can serve as a base for university leaders to investigate other factors, such as student peer environments and organizational factors to develop a comprehensive predictive data analytics tool. Using data analytics can help universities in Kazakhstan identify students at risk and provide necessary support and interventions. Fundamentally, the study aims to offer insights that can inform evidence-based interventions and policies, with the goal of enhancing student success and retention.

1.4. Significance of the Study

The higher education domain exhibits a distinctive feature defined by a pronounced expectation imperative, meaning numerous stakeholders impose high expectations on the sector (Webber & Zheng, 2020). Students and parents are driven by concerns about manageable educational expenses, timely degree completion, and expanded career opportunities. Industry leaders seek university graduates equipped with employable proficiencies, such as problem-solving and critical thinking abilities. Simultaneously, governments anticipate universities to function with efficiency and actively contribute to local and regional socioeconomic development by producing competent graduates. Therefore, stakeholders who stand to benefit from this study are educators and administrators, who can

gain a deeper understanding of the contributing factors to academic performance. Naturally, university students themselves may benefit from this study once their institutions establish effective retention strategies based on contextualized research findings. In and beyond Kazakhstan, the study possesses practical implications for universities that seek to enhance student outcomes.

1.5. Definition of Terms

Instead of using *student dropout*, this study uses *student departure*. This choice aligns with Tinto's perspective, as highlighted by Bean (1988) and Braxton (2019), who argues that the term *dropout* is laden with negative connotations. Therefore, student departure is a better choice for delineating the interaction between the individual student and their institution.

Student retention, a pivotal metric in higher education, refers to the persistence of students in their educational programs, where they remain enrolled and complete their degree or certificate programs (Tight, 2020, p. 689). Retention is often measured in terms of enrollment and completion rates, as well as time to degree or program completion. It is a top-down measurement, which encompasses the entirety of institutional efforts aimed at influencing this rate, working to deter students from prematurely discontinuing their education prior to attaining their degrees. *Student persistence*, in its turn, is a personal matter where students persevere toward a specific objective. The fact that a student's ultimate aim may or may not involve college graduation presents a crucial differentiation between the two concepts (Reason, 2009). Since students individually determine their objectives, successful persistence does not necessarily equate to retention until graduation. Therefore, higher education institutions *retain* and students *persist.*

When it comes to *student probation*, the term at the crux of this research study, it functions as a disciplinary measure aimed at motivating students to achieve acceptable

academic results. According to the academic policies and procedures of the examined institution, students are placed into academic probation period if their GPA falls below 2.0 mark. It serves as a means to make students aware of the seriousness of their academic standing while additionally identifying those students who might be susceptible to leaving the institution (Ahmed et al., 2014). This identification enables the institution to intervene and support these students in enhancing their academic performance. Not meeting the criteria for satisfactory progress could result in the discontinuation of financial aid, academic probation, dismissal, or other similarly severe outcomes (Ahmed et al., 2014). Therefore, student probation is a key element of student success and retention rate, which is the reason it has been positioned at the center of this study. Conceptually, it clearly draws the line between academically struggling students and academically thriving students. However, it must be emphasized that absence of academic probation is undeniably not a sole indicator of student success but indeed is a practical measure for the purposes of this study.

1.6. Thesis Outline

This thesis consists of six chapters: Chapter 1 introduces the study while chapter 2 presents the literature review. In chapter 3, details related to the methodology are presented along with rationale for the choice of explanatory sequential design. Chapter 4 outlines the study's findings and these findings are discussed in chapter 5 guided by relevant literature. The thesis concludes with chapter 6 where the key study findings are summarized, limitations are considered, recommendations offered along with suggestions for future research.

1.7. Summary

This introduction section has focused on setting the stage by providing the background to the study, articulating the problem statement, elucidating the research purpose and

questions, and defining relevant terms. In the subsequent section, a comprehensive review of the literature is provided.

Chapter 2. Literature Review

2.1. Introduction

As mentioned in the previous chapter, research on student departure in Kazakhstan is extremely scarce; therefore, the review of literature is primarily focused on international studies relevant to the subject. First, this review elucidates the conceptual framework to underpin the investigation. Following this, research studies exploring the precollege factors, which precipitate student probation and/or departure will be reviewed. The section also expands on organizational and peer environment dimensions that proved to be highly influential in students' capacity to persist. Finally, the concluding section of the literature review outlines various effective student retention strategies implemented at universities across the globe, including data analytics and the ethical issues associated with its use.

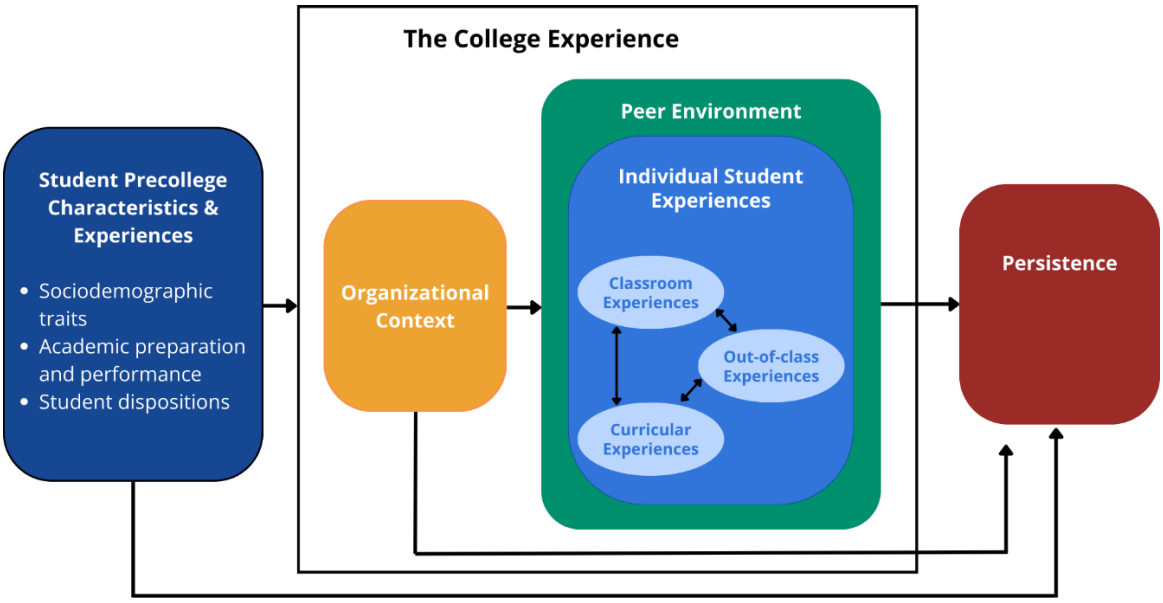
2.2. Conceptual Framework

Multitude of studies neglect to consider a diverse variety of factors that contribute to student departure, concentrating on specific circumstances, interventions, and policies (Terenzini & Reason, 2005). Having found significant gaps in existing theories and experiential research, Reason (2009) offers a review through the lens of a comprehensive conceptual framework for examining the occurrence of college student departure, presenting an advancement beyond Tinto's seminal theory (Braxton, 2019). Incorporating categories such as student pre-college traits, organizational characteristics, student peer environments, and individual student experiences (Figure 1), Terenzini and Reason (2005) offer an all-encompassing insight into student persistence. Moreover, this inductive process allows for assembling individual concepts to depict potential relationships (Bloomberg & Volpe, 2012). Four domains for future research are outlined, with the initial one emphasizing the ongoing examination of students' sociodemographic characteristics. This study is thus guided by

Reason's (2009) conceptual framework, allowing it to be positioned within the broader academic context (see Figure 1).

Figure 1

Comprehensive Model of Influences on Student Learning and Persistence



Note. Adapted from Reason (2009, p.661)

The framework starts with an inherent understanding that students come into postsecondary institutions with varying precollege characteristics, academic readiness, and experiences, as well as social and personal dispositions. With the widening participation in higher education, students significantly differ in terms of their sociodemographic characteristics such as gender, race/ethnicity, age, parental education, and family income, as well as in their academic preparation and performance, encompassing factors like the type and quality of their secondary school curriculum and achievements in the secondary school setting. The scholars, however, appear to be shifting their focus away from investigations centered on individual-level sociodemographic variables as predictors of student persistence. Within higher education research, there is a growing acknowledgment of the challenges in deriving

practical implications from these studies (Tinto, 2006). Nevertheless, sociodemographic dimension maintains its significance due to the substantial between-group differences in persistence (Reason, 2009). Furthermore, integrating individual-level sociodemographic characteristics into studies on persistence provides a deeper insight into how interventions can conditionally impact efforts to enhance student persistence.

2.3. Precollege Characteristics and Student Departure

Many studies are ambiguous on the definition of socioeconomic status and therefore operationalize it differently; some studies use a composite of family income, parental education and occupation to elucidate the term (Terenzini et al., 2001; Walpole, 2007), while other studies utilize specific components in isolation, such as parents' level of education (Goyette & Mullen, 2006) or parents' occupational status (Slaney & Brown, 1983). The extensive empirical evidence consistently confirms that students from low-income households, with parents lacking college experience, are less inclined to attend college, opt for four-year institutions, and persist, irrespective of their abilities, gender and age, compared to their more affluent counterparts who are not the first in their families to pursue higher education (Bjorklund-Young, 2016; Kezar et al., 2023; Peng & Zhang, 2022, Walpole, 2007). The influence of socioeconomic factors may also vary across different types of institutions, as noted by Braxton, Hirschy, and McClendon (2004). In their findings, Braxton and colleagues indicated that parental education, serving as one indicator of socioeconomic status, was notably associated with persistence at commuter institutions but showed no significant correlation with persistence at residential institutions. In addition, since the majority of students from low-income families tend to sustain themselves financially by taking up part-time jobs, those students who spend more than 16 hours per week in paid employment in one study were seven times more susceptible to departure (Leveson et al., 2013).

Existing research has identified the challenges faced by low-income students. However, findings tend to portray them in a deficit perspective and potentially exacerbate the marginalization of these students. Nguyen (2023) contributes to reshaping the discourse surrounding low-income students by examining how they excelled in collegiate settings. He finds that students originating from low-income families thrive by utilizing a variety of strategies, including seeking help for both academic and psychological support, participating in career-oriented events, and adopting new financial behaviors to better navigate post-college life and actively participate in society. Additionally, scholars emphasize the importance of psychological capital which manifests itself in self-efficacy strategies, resilience, optimism, and hope on retention rates (Van Hoek et al., 2019; Sweet & Swayze, 2020).

Academic preparation and high school performance seem to be the strongest predictors of student persistence (Reason, 2009). However, among the indicators, a longitudinal study of 12,000 U.S. students from 1988 to 2000 by Adelman (2006) found that the intensity of the high school curriculum was more predictive of academic success for first-year students than the standardized testing scores. Furthermore, Adelman (2006) and Cardona et al. (2020), despite their studies being 15 years apart, both discovered that the successful completion of advanced math courses during high school appeared to have the most significant impact on a student's readiness for college and their ability to transition successfully into the second year of college. Cabrera et al., (2003) suggests that a rigorous curriculum at a secondary level substantially increases postsecondary persistence for low SES students, but they are simultaneously less likely to have access to them. Interestingly, the probationary period aimed at warning students of academic risks to adjust their actions, further deteriorates academic performance for students, who then become more prone to departure (Ahmed et al., 2014; Bowman & Young, 2022; Sneyers & De Witte, 2018); at the same time, there is a strong

relationship between previous performance at school and placement on probation (Al-Alawi et al., 2023).

In terms of gender, in contrast to their male counterparts, female students exhibit a higher propensity to persist in their academic pursuits, while also demonstrating a tendency to achieve degree completion at an accelerated pace (Srairi, 2021). This difference, however, becomes considerably less salient when controlling for other factors at play, such as major choice, academic achievement, and situational variables. Despite recent reports suggesting overall gender equality in science degrees, there are substantial disparities in retention rates across specific science domains. For instance, men exhibit significantly higher retention rates in computing and physics courses (Lehman et al., 2022; Witherspoon & Schunn, 2021). These studies attribute the outcomes to prior academic performance for both men and women, but the sense of belonging is especially influential on competency beliefs of female students. Moreover, a study by Almukhambetova et al. (2022) revealed that women pursuing STEM degrees in Kazakhstan face benevolent discrimination, stereotype threat, and a female underrepresentation in the faculty and among peers. The latter challenges may be particularly pronounced in more traditional societies. Additionally, gender seems to be a key variable in low achievement groups, with most of the female students opting to withdraw, potentially suggesting increased vulnerability among women when confronted with academic setbacks (Casanova et al, 2018). Finally, Reason (2009) presents the finding that other sociodemographic variables, such as race and situational factors, including marriage and parenthood, affect the persistence of men and women differently.

2.4. Organizational Factors and Peer Environment

According to Reason's (2009) comprehensive conceptual framework, the influence of structural and demographic characteristics on student persistence are investigated based on

institutional size, selectivity, the type of institution, and availability of on-campus housing. Common belief holds that enrolling in a small, private, and selective institution enhances the likelihood of graduating with a degree. However, while university size and support are less malleable institutional variables, selectivity of the institution can be adjusted. Although high selectivity tends to signify the institutional quality and therefore increased retention rates, the latter can be primarily accounted for by prior academic preparation; thus, the correlation is anticipated. Availability of student housing seems to exert a considerable influence on student departure. The study by Leveson et al. (2013) revealed that the most influential factor in indicating an intent to leave the institution is the duration of travel to and from the university. Students who commute for over 16 hours per week demonstrate a 20-fold higher likelihood of withdrawing from their studies in comparison to students with no travel time. The social circumstances of students, particularly concerning accommodation, appears to play an important role in their perseverance within the university and academic integration. In fact, within the South African context, the research identifies that students who avail some type of on-campus housing tend to achieve a faster average graduation rate compared to commuters (Murray, 2014). Moreover, the type of institution appears to be important; for instance, research finds that African-American students experience enhanced persistence when attending historically black colleges or universities, while female students benefit from attending women's institutions (Copeland, 2006; Glenn, 2007; Terenzini & Reason, 2005). This effect is frequently associated with the positive influence of campus climate on academic performance. Subsequently, students' precollege characteristics and their college experience carry far more weight than the structural and demographic attributes of the institution itself.

According to Reason (2009), the student peer environment refers to "the system of dominant and normative values, beliefs, attitudes, and expectations that characterize a campus'

student body" (p. 670). The impact of the peer environment is believed to be subtle, leading to gradual changes that may not be immediately noticeable to the individual student. Furthermore, there is little empirical evidence on the relationship between student peer environment and student persistence; thus, the area is ripe for investigation (Reason, 2009). Nevertheless, peer environment research is growing noticeably in recent years. A randomized experiment implementing a brief intervention (closeness-induction and small-talk tasks) in order to foster peer relationships among more than 200 undergraduate students boosted retention, particularly for students of color (Rasco et al., 2023). Moreover, the task involving closeness induction was more than twice as effective in decreasing student departure rate as opposed to a small-talk task. Altermatt's (2019) findings suggest that peers' reactions to college students' sharing of everyday academic experiences play a significant role in shaping overall perceptions of peer academic support, ultimately influencing higher academic self-efficacy. The influence of attitudes prevalent among peer students may have a role as well. For instance, investigation of the role of peers in persisting at midwifery programs in Canada revealed that motivated and engaged peers positively enhanced students' learning experiences and commitment to their program, whereas peers fostering an excessively competitive academic environment impeded learning (Neiterman et al., 2023). Scholars tend to highlight that the majority of students experience a sense of community in peer interactions and lean on each other for emotional, academic, and practical support in the adaptation process and beyond (Bass et al., 2016; Neiterman et al., 2023). To sum up, universities can use these findings to enhance new student orientations and promote peer connections on campus, leveraging structured interaction strategies.

2.5. Institutional Retention Strategies

In general, higher graduation rates are associated with a lower student-to-faculty ratio (Pascarella, 2006; Srairi, 2021). Universities with fewer students per faculty member tend to facilitate frequent and successful interactions between students and professors. Conversely, some researchers have not found a statistically significant relationship between the aforementioned variables yet established a strong positive correlation between institutional expenditure on instruction, academic support, student services and student retention rates (Dahlvig et al., 2020; Lenhardt, 2017).

Numerous empirical studies addressed the impact of academic support in various forms (faculty mentoring, peer mentoring, academic advising, and student coaching) on improving retention. For example, Swecker et al. (2013) found that every meeting with an academic advisor increased the odds of first-generation students' retention by 13% and Tovar (2014) discovered that engagement with instructors and academic counselors enhanced the Latinx students' success. Additionally, interventions such as reducing class size, enhancing faculty availability for advising, and improving teaching quality are crucial for enhancing student persistence, particularly among Black students (Xu & Webber, 2016). These study findings reinforce the benefits of academic support for first-generation and minority students, but emphasize the frequency and quality of these interactions as a decisive factor in achieving significant results in academic performance.

The meta-analysis performed by Sneyers and De Witte (2018) found that faculty mentoring, derived from the general effect size of each intervention, demonstrates notable enhancements in the retention and graduation rates of the treatment group, exhibiting respective increments of 8% and 5% when compared to the control group. In addition, students who receive substantial peer mentoring not only exhibit a reduced intention to

discontinue their academic pursuits but also maintain consistent and elevated levels of autonomous motivation for their studies (Ayoobzadeh, 2022). Moreover, some scholars theorize that students may face challenges due to either a lack of crucial information on succeeding at university or an inability to act upon available information. Bettinger and Baker (2011) designed a randomized experiment on testing the effectiveness of individualized student coaching, whereby selected students had regular sessions on developing a clear vision and long-term academic goals, as well as building study and time-management skills. As a result, researchers found that students who received treatment were more likely to persist during the coaching and one year after it ended. A similar recent study confirms the longitudinal positive effect of individualized coaching on student sense of belonging and self-efficacy, with a moderate-to-large effect of continued intervention program on grade point average of students placed on probation (Vanacore & Dahan, 2019).

With regard to student services, a number of studies highlight effectiveness of on-campus programs on student retention, freshmen students in particular (Hoyt, 2021; Kulp et al., 2019). The analysis of the 2018 freshman cohort at one of the U.S. universities showed that students engaged in specific programs such as athletics, multicultural and inclusion center, and academic performance center resulting in higher retention, with students having nine or more connections showing a 73.5% retention rate compared to overall 56.6% for all freshmen. However, accessing the ubiquitous student services available on campus itself may be a challenge due to study workloads, leading to a level of discouragement in participation or seeking support. Kezar et al. (2023) highlights the effectiveness of comprehensive college transition programs in streamlining and reducing cognitive load for students by integrating various services and resources within a single program, alleviating the need for students to navigate multiple offices independently. The unique aspect of the approach lies in

consolidating scattered resources and services that are typically disjointed on college campuses, addressing the challenge of accessing support for students with diverse needs and emphasizing the importance of finely tuned interventions tailored to individual students.

In relation to financial aid, a meta-analysis of 42 studies, resulting in 73 effect size estimates by Nguyen et al. (2019) identified that receiving grant aid enhances the likelihood of students persisting in and completing their degrees by two to three percentage points. However, the study also notes the impact is weaker for merit-based financial assistance compared to need-based financial aid. The financial aid in Kazakhstan is primarily targeted at students with high academic performance, since the competition for state grants and internal institutional scholarships is solely based on national examination scores and high school grades (Ahn et al., 2018). To conclude, institutional efforts to provide academic support, student services, and financial aid generally prove to be effective in mitigating student departure. Nevertheless, the nature of these efforts can be segmented and inconsistent, prompting higher education leaders to reconsider their methods by developing a comprehensive approach.

2.5. Implementing Data Analytics to Mitigate Student Departure

Due to expansion and commercialization of higher education, combined with a growing emphasis on efficiency and cost-effectiveness, higher education institutions started to utilize data analytics in order to satisfy large-scale demands. Despite the increasing availability of data-informed approaches to improve the quality of learning outcomes, research on the effectiveness of learning analytics in higher education is limited and mostly concentrated in a few regions of the world, namely the U.S., Australia, and the U.K. (Pargman & McGrath, 2021; Tight, 2020). However, even in places where data analytics seems to be ubiquitous, only about 20% of provosts and chief academic officers in the U.S. colleges claim

to use data effectively to inform decision making (Jaschik & Lederman, 2019). This predicament has been elucidated as “data rich but information poor” (Reinitz, 2015) and denounced by Davenport et al. (2001): “…in the rush to use computers for all transactions, most organizations have neglected the most important step in the data transformation process: the human realm of analyzing and interpreting data and then acting on the insights” (p. 118). Thus, the sheer volume of data does not automatically translate to improved decision-making in universities. Institutions need to harness contextualized knowledge of higher education organizations, along with tailored analytics strategies that fully account for the unique characteristics of their student populations (Webber & Zheng, 2020).

A systematic review of 62 articles published between 2007 and 2018 conducted by Foster and Francis (2020) found that around 75% of the articles reported positive impacts of learning analytics tools on various aspects of student outcomes such as retention, academic performance, and engagement. In contrast, a study by Viberg et al. (2018), which examined 252 papers on the use of learning analytics published in the period of 2012-2018, has found that while learning analytics are being increasingly used in higher education institutions, there is little evidence on its positive impact on learning outcomes, teaching, or its ethical deployment. Nevertheless, an examination of the available evidence on learning analytics suggests that there has been a recent trend towards gaining a more comprehensive understanding of students' learning experiences. Numerous studies emphasize the significant potential of data analytics to enhance student retention in higher education. Specifically, the focus is on early identification of at-risk students, followed by targeted interventions and support to facilitate their success, ultimately leading to improved educational outcomes (Foster & Francis, 2020; Herodotou et al., 2019; Tight, 2020). Tight (2020) underscores the promise of early warning systems (EWS) as an effective approach for enhancing student retention in

higher education. Additionally, Herodotou et al. (2019) advocate for evaluating key data points such as student engagement, academic performance, and demographics to analyze and boost retention rates in universities.

In contrast to prior research, a recent study by Phan et al. (2023) advocates for a more comprehensive approach to predict early student dropout in higher education. Their proposed framework integrates both structured data, such as demographics and academic indicators, and unstructured textual data, including student comments on learning management systems (LMS) and course evaluations. The authors argue that while traditional dropout prediction models often rely solely on structured data, incorporating unstructured data can provide valuable insights into students' motivations, attitudes, and experiences, enhancing the prediction of dropout risk. Additionally, Cardona et al. (2020) and Sušnjak et al. (2022) highlight the limited use of predictive analytics in widely used dashboards, emphasizing the benefits of integrating machine learning algorithms and visualization techniques. This integration has the potential to identify areas for improvement, encourage self-directed learning, and support informed decision-making in education.

The literature demonstrates a keen interest in establishing predictive models for early identification of students at risk of dropping out. There are several cases wherein universities successfully used data analytics to predict student departure. Linden et al. (2023) found that early identification of disengaged students, using methods such as monitoring non-submission of assessments and low Learning Management System (LMS) activity, proved effective in predicting student attrition. Additionally, outreach efforts, especially those involving successful dialogue with the Outreach Team, significantly improved academic outcomes for identified students, highlighting the importance of timely support in enhancing student retention and success. Similarly, Nottingham Trent University implemented an institution-

wide dashboard, which was designed without demographic data, and indicated that student engagement was a crucial predictor of progression and final degree classification, leading to changes in tutor interventions and positive behavioral responses from students (Sclater et al., 2016). Finally, perhaps one of the most prominent examples of a wide implementation of learning analytics is Course Signals by Purdue University. Utilizing data on grades, attendance, and engagement, the tool categorized students into risk levels and provided personalized interventions, resulting in a 16% higher retention rate, 4.8% higher GPA, and 5.5% higher course completion rate (Arnold & Pistilli, 2012).

2.6. Ethical Issues with Using Student Data

While using student data to mitigate departure has the potential to improve student outcomes, there is a need for greater ethical awareness and accountability in the use of these technologies. Authors highlight the significance of considering key ethical issues related to the collection, analysis, and use of student data, such as data privacy, transparency, and the potential for bias and discrimination (Pargman & McGrath, 2021). Following this, literature suggests an ethical framework in approaching the implementation of learning analytics tools, which includes such considerations as the purpose of the analytics, the stakeholders involved, and the potential risks and benefits for students.

Scholars also emphasize the importance of considering both learner and teacher expectations when evaluating the value of learning analytics tools in higher education (Gašević et al., 2015; Schumacher & Ifenthaler, 2018). While students anticipate support in planning and organizing their learning, self-assessment, and personalized analyses, educators value tools that identify areas where students struggle, allowing for targeted feedback and a more nuanced understanding of the learning process.

As revealed by Korir et al. (2023), students have multifaceted privacy concerns that go beyond data collection and also encompass data use and data sharing. These concerns are influenced by various factors, such as their level of trust in the institution and the technology being used, their perceptions of the benefits and risks of learning analytics, and their prior experiences with data breaches and misuse. To elaborate, the study yielded that students are inclined to be more amenable towards the collection of their personal data within a university context as opposed to an e-commerce context, wherein students exhibited a greater degree of apprehension and unease regarding the potential disclosure of their data.

The senior administrators in Australian universities, however, expressed concerns regarding the potential misuse of analytics as surveillance tools for enforcing compliance and control and the risk of breaching individuals' and institutional privacy (Mahroeian & Daniel, 2021), mainly due to reduced staff capacity and training deficiencies. Furthermore, there was a notable apprehension that analytics might exacerbate inequities among and within institutions, emphasizing the need for careful consideration of these challenges in deploying analytics and Big Data in the global higher education sector.

2.6. Summary

The literature review explores student departure in higher education, employing a comprehensive conceptual framework by Terenzini and Reason (2005). It covers factors contributing to student departure, including precollege characteristics such as sociodemographic factors and academic preparation, organizational factors, and the peer environment. The review further discusses institutional retention strategies, emphasizing the impact of academic support, student services, and financial aid, and concludes by examining the implementation of data analytics as a tool to mitigate student departure, with varying perspectives on its effectiveness and ethical considerations in enhancing learning outcomes.

Chapter 3. Methodology

3.1. Introduction

In this chapter, the methodology procedures employed in this study to address the research questions are discussed. The chapter is composed of several sections, including research design, research method, sampling, data collection methods, and ethical considerations. Each section elucidates the rationale behind the selection of specific instruments or methods for conducting this research, and the definitions of each concept or term are provided.

3.2. Research Design

This research uses a mixed-methods research design, which involves collecting, analyzing, and "mixing" both quantitative and qualitative methods to understand the research problem (Creswell, 2018). The purpose of conducting a mixed study is building on the strengths of qualitative and quantitative data to develop a complex picture of a social phenomenon, in this case, the issue of student probation. Moreover, one type of research will not be sufficient to address student probation. In order to evaluate a relationship between sociodemographic characteristics and placement on academic probation, it is imperative to explore what mechanisms to prevent academic probation are already in place at the institution and learn what kind of help and interventions university students need their institutions to provide. To clarify, the study employs an explanatory sequential design, whereby collection of quantitative data is followed by qualitative data to provide a deeper understanding of the quantitative findings (See Figure 2). The primary goal was to use qualitative data to explain the quantitative results, especially in case unexpected outcomes occur or when the quantitative results are too general (Creswell, 2018).

Figure 2

The Explanatory Sequential Design

Note. Adapted from Creswell (2014, p.541)

When it comes to the quantitative phase of the study, non-experimental correlational research design was used to examine the relationship between independent variables such as students' gender and the type of secondary school attended, and the dependent variables, the placement on academic probation and university GPA. Non-experimental research design is well-suited for studies, where the goal of research is to investigate naturally occurring attributes or behaviors which cannot be manipulated by the researcher (O'Dwyer & Bernauer, 2014). Since students' sociodemographic attributes are naturally occurring phenomena, it follows that non-experimental research was the most relevant design for this investigation. Furthermore, as categorized by O'Dwyer and Bernauer (2014), non-experimental research designs exhibit two key features: firstly, the primary research objective, and secondly, the role of time in the data collection process. Given that this study aims to identify what student characteristics predict academic performance outcomes, it can be attributed to predictive study. The established relationships between variables explicated by the study findings can assist higher education leaders in developing a predictive data analytics tool to target and support at-risk students. Additionally, this investigation falls into the retrospective category since it examined whether data collected on student attributes upon admission can account for observed disparities among groups. To illustrate, this research was interested in whether students who attended a specific type of secondary school, therefore, possess particular level

of academic readiness or entered university with particular sociodemographic attributes achieved better academic outcomes compared to their counterparts.

In the qualitative phase of this study, the primary aim was to gain a deeper understanding of the university's current efforts to assist students in avoiding academic probation and to explore the perspectives and needs of the students themselves. This qualitative component was essential to complement and enrich the quantitative findings obtained from secondary data analysis (Creswell, 2018). To achieve this, semi-structured interviews with academic advisors representing various university colleges, as well as professionals from the registrar and student affairs departments were conducted. These interviews provided a unique opportunity to gather insights from key university personnel who are directly involved in supporting students' academic journeys. By engaging in dialogue with these professionals, the purpose was to understand the existing strategies, programs, and interventions that the university provides to aid students in academic success. Additionally, one focus group interview with university students was organized. This focus group session was designed as a safe and open platform for students to articulate their perspectives, concerns, and the support they require from their postsecondary institution to thrive academically. During these discussions, exploration was focused on the specific academic challenges students faced, the types of assistance they deem valuable, and investigation of their overall expectations from the university.

3.3. Research Questions

The purpose of this study was to investigate the sociodemographic factors and secondary academic experiences contributing to student placement on academic probation. To determine the intricate interplay between these attributes and postsecondary academic performance, the research used secondary data which include anonymized student data

(gender, age, nationality, type of secondary school, high school GPA, region of origin, belonging to a socially vulnerable category, university GPA, placement on probationary period). Therefore, the statistical analysis of the secondary data addresses the following research question:

1. What student characteristics and academic experiences prior to entering postsecondary institution correlate with placement on academic probation?

Moreover, by conducting focus-group interviews with students and semi-structured interviews with university staff, the study provides the analysis of the existent retention mechanisms at the university and the recommendations based on both the quantitative and qualitative results of the study. Therefore, the qualitative component will address the following research questions:

2. What mechanisms are in place at the institution to prevent student departure?
3. How can the university improve its retention rates based on research results?

Based on the first research question, the following null hypotheses will be tested:

H_0: There is no significant relationship between student characteristics and academic experiences prior entering postsecondary institution and academic probation.

However, in order to differentiate between various student characteristics and academic experiences prior entering postsecondary institution and their relationship with student falling into academic probation, the subsequent null hypotheses will be tested:

H_0: There is no significant difference between students' gender and placement on academic probation.

H_0: There is no significant difference between students' geographic background and placement on academic probation.

H_0: There is no significant difference between the type of secondary school attended by students and placement on academic probation.

H_0: There is no significant difference between students' secondary school language of instruction and placement on academic probation.

H_0: There is no significant difference between students' belonging to a socially vulnerable category and placement on academic probation.

H_0: There is no significant difference between students' high school GPA and placement on academic probation.

3.5. Sample

The target population for this study were undergraduate students at one of the universities in Kazakhstan. During the fall semester of 2022, the institution's student body exhibited a sizable populace, roughly 7000 students. Within this cohort, an approximate subset of 5000 were undergraduate students. This research project will employ criterion-based sampling, which involves selecting individuals from the population who are either active, withdrawn or dismissed, on academic leave and graduated undergraduate students. In order to produce results with 95% confidence and 5% margin of error, a sample size starting from 355 students is sufficient to answer the research questions of the study. However, it was useful to compute analysis on a much larger sample to increase the external validity of research findings and account for missing data; thus, this study obtained access to just slightly above 7000 unique undergraduate student records.

Interview participants were university staff and students. To ensure a comprehensive and targeted approach, the study employed a purposeful sampling. Specifically, eight semi-structured interviews were conducted, two interviews with academic advisors offering their services to all undergraduate students, and eight interviews with representatives of registrar,

enrollment, data analytics, information systems and school offices, who are involved in managing academic affairs. Additionally, one focus group interview was organized, comprising of six undergraduate students recruited to represent different schools within the institution. This selection process prioritized targeting varying schools and academic years.

3.6. Data Collection Procedures

Prior to data collection, institutional approval was sought to access anonymized secondary data from the registrar's office. The secondary data contain a sample of undergraduate student records, encompassing variables such as gender, nationality, secondary education GPA, type of secondary school attended, university GPA, and the occurrence of academic probation during their academic pursuits.

The contact information of administrators was found on the official university website, and each was emailed with request for an online or offline interview, with a maximum of two contact attempts out of consideration for individual autonomy and time constraints. Informed consent forms were provided to participants along with the recruitment email in order to give key information about the study, the voluntary nature of participation and the right to withdraw at any point of the interview. Informed consent was secured before the interviews, including consent to audio record. Permission to audio record the interviews for data analysis purposes was asked again in the beginning of each interview, which all participants kindly granted. The interview process adhered to a predefined protocol while maintaining flexibility to accommodate spontaneous questions that may arise during the course of the interview.

Focus group interview was organized online due to logistical considerations involving six students. Since their schedules may have not been aligned to be present at one place at the same time, their availability for one-hour interview was discussed individually and agreed upon in advance. The interviews were facilitated and moderated, with participants using

designated codes when speaking to facilitate accurate transcription. Audio recordings were uploaded to a password-protected personal computer within a password-protected folder. Transcription was performed using specialized software and manually inspected for accuracy.

3.7. Data Analysis

The collected anonymized secondary data underwent a rigorous statistical analysis employing open-source statistical software Jamovi. Prior to computing variables, the data were thoroughly cleaned, and several variables were transformed using power query in Excel to address research questions effectively. For instance, the single variable indicating students' place of residence (city, town, village, etc.) produced three distinctive variables: a part of Kazakhstan (North, South, etc.), whether the student originates from a rural or non-rural area, as well as major city of republican significance or not. It is also important to note that the anonymized student data includes all available student data regardless of whether they have ever been placed on academic probation. The justification for this choice lies in the opportunity to compare the sociodemographic attributes and academic preparation of both groups, those who faced probation at least once and those who did not. Descriptive statistics, including means, standard deviations (SDs), and percentages, were computed. This provides a summary of the central tendency and variability in the data. Furthermore, inferential statistical methods such as correlations, t-test, ANOVA, and multiple regression analyses were used to discern patterns, relationships, and explanatory variables within the dataset.

Correlation analysis (Pearson's correlation) was employed to examine the strength and direction of relationships between continuous variables (high school GPA, university GPA). To compare means between groups (e.g., different types of secondary schools, socially vulnerable categories), t-tests or analysis of variance (ANOVA) may be used. Post-hoc tests can identify specific group differences if ANOVA indicates a significant overall difference.

Multiple regression analysis can be used to assess the predictive power of multiple sociodemographic variables on student placement on academic probation. This helps determine which factors contribute significantly to the outcome. Finally, thematic analysis applied to both university staff and student interviews to identify and analyze recurring themes and patterns within the qualitative data were performed using NVivo.

3.8. Ethical Considerations

Ensuring the anonymity and confidentiality of participants was of paramount importance in this study. It was crucial to safeguard the privacy and confidentiality of both university workers and students involved in the research. The study did not collect any personal or identifying information from students or staff members, such as names, student identification numbers, or contact details. There was no inquiry about whether students have had experience with academic probation or whether they belong to a socially vulnerable category. For the qualitative phase involving semi-structured interviews and focus group, participants were assigned pseudonyms or unique participant codes to replace their actual identities. These pseudonyms or codes were used in all data records and transcripts, ensuring that their real identities remain confidential.

Despite the minimal risk nature of the study, the following risks associated with this study were acknowledged. For the focus group interview with students, complete anonymity was not possible. Students could have either recognized or introduced to one another in the process. Additionally, some interview questions may have created a sense of anxiety since it involves their perspectives on and experiences with academic performance despite being informed that they did not have to share anything they feel uncomfortable to disclose at multiple points of both recruitment and the interview itself.

All collected data, whether quantitative or qualitative, was securely stored on password-protected devices and in password-protected folders. Informed consent forms explicitly state that participation was voluntary, and participants have the right to withdraw at any point without consequences. Then, they emphasized the confidentiality of their responses. Any information that can potentially identify participants was removed or altered during the transcription and data analysis process. This further ensured that their identities were protected. All the collected data will be destroyed after three years of the thesis completion.

3.9. Summary

The chapter introduced the methodology procedures, consisting of sections on research design, research method, sampling, data collection methods, and ethical considerations. A mixed-methods research design was employed, specifically an explanatory sequential design. The quantitative phase utilized a non-experimental correlational research design, focusing on the relationship of sociodemographic factors and secondary level academic preparation to academic performance. The qualitative phase involved interviews and a focus group to understand existing support mechanisms. In regard to sampling, the target population was undergraduate students at a large university in Kazakhstan. The sample size of 7,000 unique records substantially superseded criteria for 95% confidence with a 5% margin of error. Ethical considerations prioritized anonymity, confidentiality, and participant well-being, with rigorous data protection measures. In addition to descriptive statistics, the data analysis includes statistical methods such as chi-square test of association, t-test, ANOVA, and multiple regression for quantitative data, and thematic analysis using NVivo for qualitative data analysis.

Chapter 4. Findings

4.1. Introduction

This chapter presents findings based on a statistical analysis of student data and thematic analysis of eight interviews with university administrators and one focus group interview with six undergraduate students from one university in Kazakhstan. The anonymized student data were gathered from the office of the registrar after an official request letter and a careful negotiation about the terms of use. The data were explored, cleaned, and used for a statistical analysis. To obtain a comprehensive understanding of the ways in which student data are processed and utilized, in-depth semi-structured interviews with data owners and analysts were conducted. To understand the current mechanisms aimed at monitoring students' academic progress and preventing student departure, school leaders and administrators were interviewed. Conclusively, to discern potential factors influencing student success, two extensive interviews with academic advisors and one focus group interview with undergraduate students of various majors and years were carried out.

The quantitative data contain thirty variables that were extensively examined, thoroughly cleaned, and appropriately transformed for analysis. A meeting with the data owner was organized to confirm several ambiguous aspects of the dataset shortly after access was gained. In fact, this is an important step in working with any secondary data, which is not collected personally and/or is unfamiliar. There are several limitations that need to be addressed prior to progressing to the next section. Firstly, some variables have thousands of missing values, consequently this is a considerable limitation in several computations and cannot be reconciled because it was not recorded by the registrar, or the data were not migrated from the admissions database in full capacity. Secondly, the university GPA displayed in the dataset does not only show the last GPA score of undergraduate program

students, who either graduated, withdrew, or on academic leave or current GPA of active undergraduate students but also current GPA of graduate students who have progressed from an undergraduate level to graduate level at this same institution; thus, some of the GPA scores are not accurate representations of undergraduate level GPA due to the approach that this variable is collected in the registrar system. To clarify, all students have one unique identification number at all levels of study (Bachelor's, Master's, PhD), which does not change once it is granted during the admissions process to avoid duplication of the same student in the database. However, it is comparatively safe to claim positive correlation between undergraduate and graduate grade point average, according to a number of studies (Halberstam & Redstone, 2005; Kuncel et al., 2001; Verostek et al., 2021). Besides, a whopping 93.2% of the students in the sample are undergraduate students (n=6600), with only 6.2% graduate students (n=442), and 0.5% PhD students (n=36), accordingly, an overwhelming majority of GPA scores are accurate indicators of undergraduate academic performance. Finally, data lack information on parental education, which is an important sociodemographic predictor of academic performance according to the literature review.

4.2. Descriptive Statistics of Student Data

The data analysis is based on 7078 unique records of undergraduate student data, with 51.4% of the sample comprising female students (see Table 1). Almost all students are citizens of Kazakhstan (99,5%), the majority of whom originate from South and North parts of Kazakhstan. Nearly 60% of the students received secondary education in Kazakh language, while just under 25% are from classrooms, where Russian was primary language of instruction. The type of school data were divided into four categories (NIS, gifted, mainstream, and private), where such schools as National Schools of Physics and Mathematics and Bilim-Innovation Lyceums are in the gifted category, Astana Garden School, Haileybury,

QSI International schools were put into private school category, and the rest were organized as mainstream schools with a standardized school curriculum. A substantial quantity of students in the dataset are Nazarbayev Intellectual Schools graduates (42.3%) followed by mainstream schools (25.1%), schools for gifted children (14.5%), and private schools (0.8%). The data represent six cohorts starting from admission year 2018 comparatively equally, however there are only eight records of students admitted in year 2024 since the primary admission period has not come yet at the time of data collection. Overall, 687 students from the sample belong to a socially vulnerable category, while 1250 do not and for the remaining 5141 students the information on the social status is not available.

Table 1

Sociodemographic Characteristics of Students from the Sample

	Categories	Counts	% of Total
Gender	Female	3640	51.4 %
	Male	3438	48.6 %
Citizenship	Kazakhstan	7044	99.5 %
	Other	34	0.5%
Nationality	Kazakh	6653	94.1%
	Russian	148	2.1%
	Uzbek	63	0.9%
	Ukrainian	13	0.2%
	Uigur	34	0.5%
	Other	160	2.3%
Part of Kazakhstan	North Kazakhstan	2534	36.1%
	South Kazakhstan	2629	37.5%
	Central Kazakhstan	415	5.9 %
	East Kazakhstan	465	6.6%

	Categories	Counts	% of Total
	West Kazakhstan	976	13.9%
	N/A	59	4.5%
Language of Instruction	Kazakh	4077	57.6%
	Russian	1731	24.5%
	English	589	8.3%
	Other	681	9.6%
Urban or Rural	Urban	5679	86.3%
	Rural	901	13.7%
	N/A	498	7,0%
	Other	5	0,1%
Type of High School	NIS	2992	42.3%
	Gifted	1028	14.5%
	Mainstream	1774	25.1%
	Private	57	0.8%
	N/A	1227	17.3%
Socially Vulnerable Category	Yes	687	9.7 %
	No	1250	17.7%
	N/A	5141	72.6%

Note. n= 7078

4.3. Relationship Between Sociodemographic Traits and Academic Performance

Of the 7078 students in the sample, among whom 3640 are female and 3438 male, 727 female students and 1010 male students have been placed on academic probation period for a semester at least once. χ^2 test of independence demonstrated a statistically significant, however, a weak association between gender and instance of academic probation period (χ^2=84.5, p<.001, Cramer's V=0.109), showing that male students are on academic probation more than female students on average (see Table 2). Following this, a chi-square test results

confirmed a statistically significant association between gender and current student status (χ^2=28.9, p< .001, Cramer's V=0.0639) with female students graduating more and voluntarily withdrawing or being dismissed less compared to their male counterparts.

Table 2

Frequencies for Gender, Academic Probation, and Student Status

	Current Status			Ever been on Probation?		
Gender	**Active**	**Graduated**	**Withdrawn/Dismissed**	**Yes**	**No**	**Total**
Female	2604	704	301	727	2913	3640
Male	2425	578	399	1010	2428	3438

Note. n=7078

The nationality variable was organized in six levels since the largest nationality groups represented in the population of Kazakhstan are Kazakhs (13.4 million), Russians (2.9 million), Uzbeks (614,000), Ukrainians (387, 000), Uigurs (290, 000), and Other (47,500) (Bureau of National Statistics, 2023). A One-Way ANOVA test showed statistically significant differences between a number of nationality groups, F (5,81.7) = 8.29, p<0.001. Having met both homogeneity and normality assumptions, as demonstrated in Table 3, Tukey Post-Hoc test identified differences for Russian (M=3.19, SD=0.562), Kazakh (M=2.93, SD=0.607), Uzbek (M=2.91, SD=0.631), and Other (M=3.08, SD=0.589) categories in terms of university grade point average scores. Overall, results suggest that Russian students have higher GPA scores compared to Kazakh students at p<0.001, Kazakh students have lower GPA than students in the "Other" nationality group (p=0.032), and Uzbek students have a higher GPA than Russian students (p=0.033) on average.

Table 3

One-Way Analysis of Variance: Tukey Post-Hoc Test – Nationality and University GPA

		Kazakh	Other	Russian	Uigur	Ukrainian	Uzbek
Kazakh	Mean difference	—	-0.151*	-0.259***	-0.1717	-0.1352	0.0174
Other	Mean difference		—	-0.108	-0.0206	0.0159	0.1685
Russian	Mean difference			—	0.0869	0.1234	0.2760 *
Uigur	Mean difference				—	0.0365	0.1891
Ukrainian	Mean difference					—	0.1526
Uzbek	Mean difference						—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

It is pertinent to acknowledge that normality will be presumed for the subsequent analyses due to the substantial size of the sample. Generally, the assumption of normality holds true for samples exceeding 30, and in extensive datasets, excessive focus on normality may introduce bias into estimations through outcome transformations (Schmidt & Finan, 2018). Additionally, as noted by Knief and Forstmeier (2021), deviating from the normality assumption is preferable to resorting to non-parametric tests or less robust models, particularly when dealing with large sample sizes.

Transitioning to the effect of secondary school language of instruction on academic performance, while there was no significant effect on placement on academic probation, One-Way Analysis of Variance (ANOVA) test demonstrated statistically significant effect on university GPA for two groups, $F(3,6248) = 7.94$, $p<0.001$. Post-hoc comparisons using the

Games-Howell test indicated that the mean score obtained by English language of instruction group (M=2.80, SD=0.715) was significantly different than the score obtained by Kazakh (M=2.90, SD=0.586) and Russian language of instruction groups (M=2.93, SD=0.593) (see Table 4). Taken together, despite the primary language of education delivery at this particular university is English, these results suggest that university GPA of students whose secondary education was delivered in Kazakh and Russian languages is slightly higher than those who received instruction in English at a secondary school level.

Table 4

One-Way Analysis of Variance: Games-Howell Post-Hoc Test – University GPA and Language of Instruction

		English	Kazakh	Other	Russian
English	Mean difference	—	-0.101 **	-0.0802	-0.1304 ***
Kazakh	Mean difference		—	0.0204	-0.0297
Other	Mean difference			—	-0.0502
Russian	Mean difference				—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

To examine the effect of geographic background on academic performance three categorical variables were used. The first variable shows what part of Kazakhstan the student is from (North, South, etc.), while the second one indicates whether student is from urban or rural region. The main criteria for the latter variable were that for place of origin to be considered urban, the population must be equal to or more than 50,000, which is a standard established by World Bank (Dijkstra et al., 2020). Last but not least, Kazakhstan has three major and densely populated cities categorized as “Cities of Republican significance”, each has independent administrative division and status comparable to a whole district, this also

means that they are allocated a much larger budget for development compared to other cities in Kazakhstan. Results of multiple regression model indicate that the combination of geographic predictors was not significantly related to university GPA, F (7, 6319) =1.85, p=0.073, adjusted R^2=9.45e-4.

Proceeding to the next potential sociodemographic predictor, it was found that belonging to the socially vulnerable category was not associated with neither academic probation (χ^2= 1.93, p=0.165, Cramer's V= 0.0316) nor university GPA, F (1,1754) =0.255, p=0.613. It is also important to note that within the socially vulnerable category, there are four individually qualifying requirements for placement. The students must provide documents confirming that they (1) are deprived of both or one parent; (2) are disabled; (3) have both or one parent who is disabled; (4) are from multi-child families (four or more children under the age of 18). However, as was discovered through interviews with one of the administrators, the last sub-category is to be removed and exchanged for income-based criteria, meaning students will need to provide parental income statement. It is possible that the relationship between this variable and academic performance will change once this adjustment takes effect.

4.4. Relationship Between Academic Preparation, Major Choice, and Academic Performance

Chi-square test of association found statistically significant relationship (χ^2=28.2, p< .001, Cramer's V=0.0694) between type of high school, holders of Altyn Belgi (graduating with honors in high school), and academic probation (See Table 5). Undergraduate students from secondary schools for gifted children appear to fall into academic probation period sufficiently more than expected, while students who graduated with honors from secondary school fell into academic probation less than those who do not hold Altyn Belgi (χ^2=17.8, p< .001, Cramer's V=0.121).

Table 5

Frequency and Chi-Square Results for Type of School, Altyn Belgi, and Academic Probation

	Ever been on Probation				
Type of School	**No**	**Yes**	**Total**	χ^2	*p*
Gifted	702	326	1028	28.2	<.001
Mainstream	1315	459	1774		
NIS	2260	732	2992		
Private	33	24	57		
Total	4310	1541	5851		
Altyn Belgi					
Yes	287	96	841	17.8	<.001
No	527	314	383		
Total	814	410	1224		

To further assess between-group differences among types of high school, a one-way ANOVA test was performed. Consequently, it was found that students from schools for gifted children (M=0.830, SD=1.51) spend more semesters on probation than students from mainstream schools (M=0,630, SD=1.25) at $p<0.01$, as well as compared to graduates of Nazarbayev Intellectual Schools (M=0.572, SD=1.19) at $p>0.001$. Moreover, as shown in Table 6, Pearson product-moment correlation coefficient was computed to assess the relationship between high school GPA (M=4.80, SD=0.358), university GPA (M=2.94, SD=0.606), and English proficiency test (IELTS) scores (M=6.21, SD=0.717). There was a positive and statistically significant correlation between all variables, modest effect size for

correlation between high school GPA and university GPA, university GPA and IELTS score, but a weak effect size for correlation between high school GPA and IELTS score.

Table 6

Correlation Matrix for High School GPA, University GPA, and IELTS scores

		High School GPA	University GPA	IELTS scores
High School GPA	Pearson's r	—		
	df	—		
University GPA	Pearson's r	0.194 ***	—	
	df	1749	—	
IELTS scores	Pearson's r	0.085 *	0.136 ***	—
	df	600	904	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The foundation year option is available for prospective students at this university and is considered to be an important component of increasing academic readiness. With the purpose of identifying whether admission type can be a predictor of academic performance, an independent-samples t-test was conducted to compare university GPA for foundation year and direct admission students. The homogeneity assumption was not met (Levene's= 21.2, $p <$ 0.001); thus, Welch's test was used. There was a strong statistically significant difference in university GPA scores for foundation (M = 2.95, SD = 0.569, n= 3255) and direct admission students (M = 2.91, SD = 0.635, n= 3376); t (6594) = -2.50, p = 0.013, Cohen's d= -0.0613. These results suggest that the university GPA of students who were admitted to a foundation year before progressing to the undergraduate level is significantly higher than those who have been accepted through direct admission. However, when testing the effect of admission type on number of semesters spent on probation, Welch's test identified that foundation year

admission students (M=0.684, SD=1.35, n=3340) spend more semesters on academic probation that directly admitted students (M=0.506, SD=1.08, n=3559) with strong effect size, t (6393) = -6.00, $p < 0.001$, Cohen's d= -0.145.

Moving on to major choice, as the university has a vast variety of disciplines, the major variable was transformed and presented into two categories: science & technology and social sciences. Since homogeneity assumption in one-way analysis of variance test was not met, Fisher's test is reported. A statically significant relationship was found between major and university GPA, F(1, 5713)=47.567, p<0.001, and Games-Howell's Post-Hoc test identified that students in social sciences (M=3.037, SD=0.520, n=1387) have higher GPA than students in science and technology majors (M=2.914, SD=0.599, n=4328), however there was no relationship established between choice of the discipline and academic probation. However, when specific majors generally perceived as challenging, namely computer science and physics (M=2.83, SD=0.609, n=1458), were tested against other majors (M=2.98, SD= 0.566, n=4421), the latter exhibit a higher GPA, F(1, 5877)=76.4, p<0.001, and less instances of academic probation, F(1,6085)=2.95, p=0.005, among their students. However, the effect size is small. Moreover, chi-square of independence further confirmed that computer science and physics majors are less likely to graduate and more likely to be either dismissed or withdraw voluntarily (χ^2=12.2, p< .001, Cramer's V=0.0847) than students from other majors, but the effect is once again weak.

Finally, the acquired anonymized student data allowed to test the effect of the additional two variables. The first was whether a student is resident of the city where the university is located or not, which usually determines if the student qualifies to apply for on-campus housing. Nevertheless, the data do not clearly indicate whether the students, in fact, live on campus. Therefore, the assumption that the non-resident lives on campus has to be

made with caution. The second variable registers whether student has had responsibility for a disciplinary violation, however it must also be noted that from 7078 student sample 6744 values are missing. Independent samples t-test was computed to determine the relationship between these variables and academic performance. There was only one significant relationship between university GPA and local residency with a strong effect size (see Table 7), suggesting that students who are local residents (M=2.90, SD=0.680, n=1502), therefore, likely do not reside on campus, have lower GPA scores than non-residents (M=2.95, SD=0.583, n=5247).

Table 7

Independent Samples T-test for Disciplinary Violation, Local Residency, and Academic Performance

	Statistic		df	*p*	Mean difference	Effect Size	
UGPA+DV	Student's	0.955	300	0.341	0.0911	Cohen's d	0.211
NSAP+DV	Welch's	-1.59	26.3	0.125	-0.268	Cohen's d	-0.389
UGPA+LR	Welch's	-2.62	2172	0.009	-0.0506	Cohen's d	-0.0798
NSAP+LR	Student's	-0.398	7017	0.690	-0.0138	Cohen's d	-0.0114

Note. UGPA- university GPA, DV= disciplinary violation, NSAP-number of semesters on probation, LR=local residency.

To sum up, analysis revealed a weak but statistically significant association between gender and academic probation, with male students more likely to be on probation. Nationality also showed significant differences in university GPA, with Russian students showing a better

performance. Secondary language of instruction had a significant effect on university GPA, with Kazakh and Russian language students earning a slightly higher GPA than English language students. Geographic background did not significantly affect academic performance. Similarly, belonging to a socially vulnerable category did not correlate with academic probation or university GPA, though adjustments to qualifying criteria for socially vulnerable category may affect this relationship in the future. Furthermore, students from schools for gifted children were more likely to be on academic probation, while graduates with Altyn Belgi were less likely to fall into probation. There was also a significant difference in university GPA between foundation year and direct admission students, with foundation year students scoring higher but spending more time on probation. When it comes to major, social science students generally have a higher GPA yet there were no association established between major and academic probation. Only when computer science and physics major students were compared to other majors, the analysis reveals both lower GPA scores and more academic probation instances. Finally, residency status showed a significant relationship with university GPA, with local residents scoring lower, suggesting they likely do not reside on campus.

4.5. Current Student Retention Strategy

4.5.1 Introduction

When inquired as it pertains to what respondents believe is the ultimate institutional mission of the university, three interviewees claimed that it is ensuring that the university admission continues to be based on merit. Additionally, they assert that what sets this particular university apart from others is that it is neither fixated on generating income nor keeping struggling students even if they pay tuition, instead it emphasizes academic excellence and quality.

> The way it works here… as long as more than 90 percent of our students are on state grants, we do not care, the money comes regardless. If we dismiss someone, we can just, for instance, replace the scholarship student with a fee-paying student; thus, in our case, [University] maintains its academic status. We focus on producing good graduates, so that when they graduate, they meet the expectations (A2).

Three out of six administrators mention academic quality in terms of accreditation and principles of international benchmarking, describing the efforts to gain accreditation from internationally acclaimed quality assurance agencies for academic programs. Moreover, since the university is attempting to move past an almost full reliance on state budget and increase its financial sustainability in the foreseeable future, two participants mention student retention, specifically keeping as many students for graduation as possible and meeting enrollment goals, as a significant part of institutional mission. One administrator also notes that the local impact is an important deliverable that the institution strives to achieve.

When it comes to standard procedures of academic probation, the status is given to students once their grade point average scores reach the mark of less than 2.0. Students receive an email informing them of their academic standing and the reason they were attributed to it. At the end of each semester, list of students on academic probation is sent to school offices (vice-deans, deans, provosts) who then directly work with these students. Nevertheless, students are almost never dismissed after first probation and are given second probation, especially if they show little progress in GPA after they have been placed on probation for the first time. It was found that whereas some schools are stricter and do not permit more than two academic probation periods, others are more susceptible to granting opportunities to students to improve their academic performance, hence giving benefit of the doubt based on student

appeal letters. Generally, students who have had more than three or two consecutive academic probations are subjects to dismissal, according to regulations.

Credit progress is another criterion of academic probation, when the student is sufficiently behind on earned credits, which happens due to a number of failed classes and/or course withdrawals, the student is also put on academic probation period. Students who do not graduate on time, stay for 5th year study on a fee-paying basis, except for those in socially vulnerable category. Furthermore, the university is working on implementing a change into GPA requirements for state grant holders in the prospective future, so the students may lose their scholarships if their GPA drops low. Finally, the university is also planning to introduce paid course retakes, which are currently free for all scholarship students. Evidently, despite the university priorities of academic excellence and access, its shifting focus towards self-sustaining model pushes administrators to introduce change to current academic policies and procedures.

Ultimately, the university maintains a commitment to merit-based admissions and the goal is to swiftly identify and dismiss students who cannot meet the academic demands, affording them the opportunity to pursue studies elsewhere where they may thrive better. One administrator illustrates this approach with examples of students persisting on academic probation for several semesters yet failing to demonstrate improvement and eventually facing dismissal in their fourth year. This proactive approach aims to prevent such scenarios and encourages struggling students to explore alternative educational pathways in advance. The latter sheds light on the university's retention strategy. Nonetheless, the institution has implemented a range of policies and support services designed to assist students and enhance retention rates, which will be elaborated upon in the subsequent sections.

4.5.2 Academic Advising

The academic advising unit was created five years after the university opened its doors and enrolled first students because the administrators saw the urgent need and significance for its services to the students. As illustrated by one of the participants:

> When there were a lot of dismissals, and the president went over them, and saw how many dismissals we had and that no help was given to the student in a timely manner, meaning the student simply wasn't provided crucial information, and that now they are being dismissed when there is nothing else to do, that's when we realized that there was a gap; As a result; this [academic advising] office was created (AA1).

Every student faced with academic struggle and the prospect of being dismissed is assigned to an academic advisor and required to attend mandatory meeting twice in one semester. As well as this, all first- and second-year students along with 5th and 6th year students who did not graduate on time are required to attend two mandatory meetings per semester. With a limited number of academic advisors, a big proportion of their workday is dedicated to 30-minute meetings with advisees. There are overall eight academic advisors, who are responsible for more than 2,000 students: thus around 250 students per academic advisor.

Each student develops an individual study plan with the help of their advisor. Normally, the initial step is that probation students are strongly urged against taking more than 30 credits per semester, while a maximum course workload constitutes 36 credits. To address the issue of academic probation among undergraduate students, information session about academic probation, namely what it is, what are the consequences, and what needs to be done to get out of it, is organized twice a year. When it was organized for the first time offline, not many students showed up, recollects one of the advisors. The low attendance of the session is associated with the stigma surrounding academic probation. Then, it was organized as a

mandatory meeting for all first-time probation students. In the later years, the office developed an academic probation support program, where not only probation students were obligated to meet their assigned advisor but could also attend academic probation support group meetings. The latter initiative gained popularity slowly but surely and the concept is quite simple: students meet and gather around a circle to share their concerns about being on academic probation, while the topic of discussion remains open.

> Some have been on academic probation for a year and their friends do not know about it. When they come to a support group meeting, they suddenly feel relieved, "so I am not alone in this." Some share their success stories of getting out and others realize it's doable. The fact that they see each other, share their fears, that helps (AA2).

Another example noted by one of the advisors is a student who shared about their probation experience on social media, which later became viral among students, who praised the student for braveness and effort to normalize academic setbacks. The student, as it turns out, recovered from probation successfully. To sum up, it appears as though academic advising unit is performing most of the work pertaining to supporting students when faced with academic difficulties and since the university is fully merit-based, advising practically retains students by helping them persist and stay on track of their academic progress.

4.5.3 Need-Based Support

To reiterate, the vast majority of undergraduate students at the university benefit from state grants, which exempt them from tuition fees and offer a modest stipend. These grants are awarded solely on the basis of academic merit. Additionally, students from socially vulnerable backgrounds, as defined earlier, are afforded additional support by the university itself, including free dormitory accommodation and waived fees for using sports facilities. Furthermore, SVC foundation students are granted meal plans at university canteens at no

cost. Overall, students of all socioeconomic levels are provided with free medical insurance and psychological counselling services.

In essence, upon admission to the university with a state grant based on academic achievement, students are provided with conducive conditions to concentrate on their studies. The socioeconomic status of students is effectively addressed during the initial stages, prior to the commencement of their academic journey, thereby ensuring an equitable learning environment. However, despite the apparent idealism of this approach, it is important to acknowledge that underlying inequities may still impact the academic experiences of certain students, and thus needs further investigation.

4.5.4 Midterm Progress Report

Midterm progress indicator in a form of "satisfactory" and "non-satisfactory" assessment serves as an early-warning signal; Lecturers are encouraged to give the evaluation mid-semester, particularly if it is an introduction-level course. However, the latter is not a mandatory practice consolidated by academic policies but rather a recommended measure for early identification of at-risk students. Academic advisors are automatically notified when a student receives three or more "non-satisfactory" evaluations in a single semester. Some interviewees, however, state that it is not a necessarily full-proof method:

> Sometimes, even the midterm exam doesn't make it into the midterm grade… that's a huge chunk of the final grade, right? So, even if you've been doing homework assignments, which are easy to copy and get an A, the real indicator is the midterm exam and sometimes it's not even in the grade… so everybody has a "satisfactory" in the midterm progress report, and then we find out that they failed at the end of semester (A5).

4.5.5 Student Data Management and Analytics

Participants identified several key issues regarding university data management systems and data handling. One of the salient concerns was the absence of an integrated system to streamline university processes. The fragmentation across multiple systems, including 1-S, Idocs, and Excel spreadsheets, impedes data visualization and trend analysis until issues reach critical stage. This disjointed approach leads to manual, time-consuming, and labour-intensive compilation of reports.

Academic advising office representatives shared that they have attempted to conduct an analysis on academic probation students to pinpoint the most influential factors contributing to decline in academic performance with an ultimate purpose to work with not only those who already fell into academic probation but also with students at risk to prevent probation. Despite new insights learned, the process was impeded by difficulty to collect and access data. Overall, half of the interviewees noted that the university is in the process of acquiring a new system, signaling a promising step toward establishing a centralized data management system. It was learned that the full implementation is planned to be within the next two years. Nevertheless, one of the participants expressed skepticism toward the locally developed product, citing its limited functionality. This sentiment was accompanied by criticism of the top management's inclination towards interim solutions, perpetuating the cycle of system replacements rather than addressing the underlying need for integrated management system.

The university's retention strategy focuses on maintaining a commitment to merit-based admissions and ensuring academic excellence. The institution emphasizes identifying and dismissing students who cannot meet academic demands, affording them the opportunity to seek education elsewhere. Standard procedures of academic probation are in place, with students notified via email when their GPA falls below 2.0. While students are rarely

dismissed after the first probation, repeated instances or consistent failure to improve leads to dismissal. Credit progress is also considered, with students falling behind on earned credits placed on probation. The university is planning to implement changes to GPA requirements for state grant holders and introduce paid course retakes to ensure academic standards are maintained.

Academic advisors play a crucial role in supporting struggling students, with mandatory meetings held twice per semester. Information sessions and support groups are organized to address the stigma surrounding academic probation and help students share their experiences. The university also provides need-based support, including state grants based on academic merit and additional assistance for socially vulnerable students. Moreover, the university is taking steps to improve its student data management and analytics systems, however, major concerns were raised about the fragmented nature of current data management systems, which hinder trend analysis and data visualization. Efforts to analyze student data to identify factors contributing to academic probation are impeded by difficulties in collecting and accessing data. While the university's strategies aim to enhance retention rates, challenges such as inconsistent grading practices and underlying inequities persist and require further investigation.

4.6. Perceptions of University Administrators and Staff on Contributing Factors

4.6.1 Introduction

Overall, eight full-time university staff members and administrators were interviewed. Table 8 demonstrates characteristics of interview participants, namely their participant codes, gender, and the department they work at within the university. The roles and responsibilities of the interviewees ranged widely — from student data ownership, project management, student progress tracking, and data analytics to academic quality assurance and enrollment. The

majority of participants have worked at the present university for at least five years, some were hired since the foundation.

Table 8

Characteristics of the Interview Participants

Code	Gender	Department
A1	Female	Enrollment Management
A2	Female	Information Systems
A3	Female	Office of the Provost
A4	Female	Office of the Provost
A5	Male	School Office
A6	Female	School Office
AA1	Female	Academic Advising
AA2	Female	Academic Advising

4.6.2 Academic Preparation

To begin with prior academic experience factors mentioned during interviews, four participants believed that the type of school is potentially a significant contributing factor to placement on academic probation. Administrators mention at least two schools, graduates of which they think are placed on probation more frequently than others. For instance, two respondents suspected that within the gifted school category, students originating from a specific model of schooling are more likely to find themselves on probation. The following quotes describe the latter effect in more detail:

> [School principal] said, you know, we teach our students to help each other. Because it is the Islamic way. And I said to him, I want people to help but not during the exam…

> When they start school they're little kids, so they get these keepers. I think that's great to a certain point, but by the time they're in high school, you really need to wean them off of this. I remember talking to kids here, I said, why are you missing class? Well, I overslept. There's nobody to tell me to wake up, to go eat, to go study, to take a shower, to change my clothes. Literally. They were at that level (A1).

Half of the participants note that the admission type may also play a role in academic performance. As highlighted by one of them, the foundation entry students tend to feel more comfortable because they understand the concept of academic integrity and they have been taught how to avoid plagiarism. On the other hand, direct students do not usually know it all and one of the interviewed academic advisors even claimed that students who enter university through direct admission are the ones who get academic misconduct the most. The respondent also notes that instance of academic misconduct is directly associated with probation based on their own analysis of probation cases:

> When we did an analysis, we noticed that if a student has an academic misconduct in a semester, i.e. cheating case or plagiarism, most likely their grades will drop and most likely, they fall into probation. And this is also an indicator for us, and we tell students about it because when a student comes to us with academic misconduct, we say that they should keep in mind that, this can lead to F grade and one failed class out of four courses, most probably GPA will drop drastically (AA1).

Following this, two university staff members mentioned that for students choosing science majors, the level of academic preparation at high school appears to be crucial. To illustrate, the way the secondary school system works is that for the last two or three years, students choose specific disciplines to study, whereas others are not the focus anymore. Once

they come to the university to major in, say, engineering, they are required to take a chemistry course, which they could have forgotten at that point.

> Even when we meet with foundation students, we tell them, if you're going to study math, it doesn't mean you're only going to study math, because the program requires you to take physics and programming too… the program covers everything. We advise them to prepare for a semester, to revise. Again, a biologist must also study chemistry, because of this there are students who give up major in biology simply because they cannot successfully finish chemistry course and since, again, it is a requirement to qualify for the biology major (AA2).

4.6.3 Mental Health, Family, Work, and Pressure

Administrators and academic advisors highlight the importance of considering family, mental health, and work aspects, as well as their cumulative effect on academic performance of students. As it was found, particularly academic advisors frequently encounter mild to severe cases of student mental health issues and have advisees who visit a therapist or a psychiatrist on a regular basis. Both also claim that the longer they advise them, the more trusting the relationship becomes; consequently, the freer student feels to open up about their psychological struggles. Moreover, since there is a high demand for psychological counseling at the university, most students need to wait for at least a month or two before making it to consultation. While academic advising position does not qualify for providing psychological counseling services and should be strictly academic in nature, it was learned that advisors find it hard to draw the line since the academic performance issues, in their practice, almost always correlate with personal struggles. The participants suggest that the academic rigor at the university further escalates mental health issues if they were present to begin with. As suspected by advisors, perhaps there were issues originating in childhood or during secondary

school and due to the stress and the pressure, it tends to come out during university. Generally speaking, the respondents argue that mental health struggles do not appear "overnight." The advisor also mentioned a recent incident with a student:

> Just recently a student had a seizure in front of me. I felt as if I was doused with cold water. I did not know how to react. Well, of course, I maintained my composure but generally, you just don't know what to do because you're not an expert. Of course, we dialed a psychologist, and they gave some instructions. On one hand, I realize it's not my job. But on the other hand, there is the human element to it, where you want to help the student (AA2).

Among eight interview participants, three brought up the potential influence of undergraduate students having jobs outside university because their family cannot support them financially or their parents are retired, ill, or deceased, and the state stipend is insufficient to fully sustain themselves. There are instances of students being the sole providers of their family as well.

> I personally know that a lot of students here work, we conducted a survey some time ago, it showed that during 3rd year 40% of undergraduate students work part-time. That could also explain it [decline in academic performance] (A3).

Interviewees mention that sometimes students have too many responsibilities, especially if they are the oldest child, or the opposite, the student is not used to bearing any responsibility. However, advisors state that when there are, in fact, too many expectations imposed on a student by their families and the student is perceived as the hope and the savior of the family, the emotional pressure from it can ultimately work against them. In such situations, advisors may recommend students to talk to their parents and/or take academic leave to save up money before resuming their studies with undivided concentration.

Emotional pressure that students experience, according to interviews, can manifest itself through comparisons coming from family and from their own self. When students first start their studies at this university, most go from being the best performing students at their schools to realization that everyone admitted to the university share the same experience, and therefore, are very academically successful. Three administrators unanimously called this *small pond, big fish and big pond, small fish* effect, adding that it may significantly affect the confidence of these students and lead to self-sabotaging behaviors, such as dropping classes if they believe they will receive grades below A, which then causes them to get behind on number of credits.

> Students at [university], as they say, are creme de la creme, meaning they've always been stars at their schools, they've been on the top, and they come here, and they are shocked that they're no longer the smartest and not everyone can internalize and accept it and therefore some of them slip down (A3).

Based on findings from respondents, a significant number of students are impacted by parental pressure, which not only limits their ability to select their preferred major but also demands flawless academic performance. Participants hypothesize that certain aspects of Kazakh culture, which are not unique only to Kazakh culture but are prevalent in it, such as an excessive pride and a strong pursuit of external validation, may contribute partially to this phenomenon.

> For a lot of them [students], it's all show. It must be a taught behavior. “What will the neighbors say?” you know. “If my parents can't brag about me”, then they're disappointed. I think we've got to decide what is academically acceptable here and encourage kids to move on, consider other universities. That kind of goes against Kazakh culture, in a way, because families lose pride... at the end of the day, they

> [parents] are very proud of their kids when they get accepted here, so I think to be dismissed from here is just horrible (A1).

4.6.4 Self-Efficacy

Majority of participants stated that the academic performance depends on students' motivation and time management skills. Administrators emphasized their inability to substitute for students in studying or coerce them to do so, with one stating bluntly, "The problem of the drowning is their own" (A6). They reiterated that while the university provides ample resources, students bear the responsibility for their outcomes, given their legal adulthood and consequent autonomy in decision-making.

> We cannot introduce some kind of strict system in the dormitory, where, for example, we say "All of you, come out of your rooms and study now. It's study time." I mean, pursuing education is what they chose themselves, right? (A4).

A survey conducted by university leadership among first-year completers underscored time management as pivotal for academic success, a concept not universally grasped despite its ubiquity, as elucidated by academic advisors. One advisor clarified, "time management is not the ability to do everything...but setting priorities effectively" (AA2). Notable pattern mentioned by one of the respondents is that, controversially, students with packed schedules are the ones who excel the most.

> These are students with jobs, full academic workload, involved in student clubs, plus an internship. If you look at their schedule, they're busier than some managers because they get up 8 o'clock and only stop at 8 in the evening. And how do they make it happen? They are very efficient. For example, they realize that they have 2 hours for history homework, and they do only that for 2 hours with no distractions. They know that if they don't do it now, they won't have time later (AA1).

Another striking pattern highlighted by half of the interviewees is what could be called the third-year threshold, where many students' grades dip around this period. There are different speculations regarding the cause of the phenomenon.

> First year everything is new, and everybody is excited. Second year they join student organizations, start their majors officially. OK, two down, two more to go. The former enthusiasm is gone. That 5th semester is really impactful on a lot of students. I think it's like: "You mean I still got to keep going?" (A1).

Once the student successfully passes the third year, however, it is safe to claim they will graduate, argued one of the academic advisors. Yet, none of the participants investigated the reason behind the critical period and believe it should be studied in the future.

Furthermore, according to the interviewed, self-efficacy can also manifest itself in the degree of awareness among undergraduate students. For instance, several staff members claim that students have a myriad of opportunities to reach out if they have difficulties, which may serve as substantial obstacles to their studies. In cases such as these, students who are aware of their options (ability to request incomplete grade for a course, ask for a deadline extension, file for academic leave) are more likely to be proactive in solving their issues. In fact, the underlying reason for creating academic advising unit at the university was providing accurate information pertaining to academic policies to all in order to avoid preventable student dismissals.

> There are times when a student has some personal reason. A family member gets sick or dies, and they don't know that they have to come in and apply for academic leave if that is the reason they are missing classes, so that the professors don't fail them. I guess the student's awareness about their rights also plays a role (A2).

Finally, a prevailing perspective among administrators and university faculty underscores the significance of students engaging in rational self-assessment, a facet intimately tied to level of self-awareness. When students fail to register or complete a required course, a common response is to overload on credits in subsequent semesters, driven by apprehension of falling behind and graduating on time. Paradoxically, this strategy often backfires, as students find themselves overwhelmed by the increased workload, resulting in a higher incidence of course failure or withdrawal. This pattern, identified by administrators, underscores a vicious tendency among undergraduate students to attempt to compensate for credit deficiencies by overextending themselves academically.

4.6.5 Academic Program

Generally, academic program content, design, and level of rigor were all highlighted as influential markers of students' academic success. It is worth noting that compared to other universities in Kazakhstan, the academic programs offered at the present institution are owned by its colleges, hence each program is developed at home by university faculty in collaboration with international partners and is therefore an intellectual property of the university.

The most commonly mentioned issue is the wrong choice of major. Many undergraduates opt for science majors, attracted by the perceived financial rewards of careers in STEM fields or influenced by parental pressure. However, many tend to struggle academically in these programs, leading to a sharp decline in GPA scores. Upon transitioning to majors more suited to their interests or to academic programs with less demanding coursework, academic performance generally sees an upturn.

One ample example, computer science program stands out for its disproportionately high number of students facing academic probation. This trend is often ascribed to the

program's exacting demands, which some find overwhelming, resulting in eventual dismissal. Additionally, there is debate surrounding the program's suitability for students seeking practical coding skills for immediate employment versus those aiming for long-term careers in computer science research and theory. While financial incentives may drive some towards the field, navigating the program's academic challenges requires a relevant aptitude and a conscious decision.

The demanding nature of science majors is also characterized by sequential course structure. The strict prerequisite requirements mean that failure in one course can disrupt progression through the entire sequence causing stress and eventual issues in academic outcomes. Conversely, majors in the humanities offer greater flexibility with a diverse range of elective options, providing students with more opportunities to explore and succeed in their academic pursuits. Yet, it must be mentioned that examples of improved academic standing after transferring from humanities major to major in STEM occur as well; thus, the pattern is not unique to a particular program but rather the extent to which student desires to study in a particular field appears to be the most important factor.

4.6.6 Organizational Factors

4.6.6.1 Faculty Workload. Based on the conceptual framework, organizational context and peer environment play a vital role in student persistence. While the data used in this study does not allow for evaluation of the peer environment (classroom, out-of-classroom, curricular experiences) and student dispositions for pursuing higher education, semi-structured interviews with administrators and university staff members helped to explore the organizational context at the university in more depth.

According to administrators, certain programs have a large number of students compared to others, therefore, student-to-faculty ratio is far from desirable. For example,

computer science program has around 54:1 student-to-faculty ratio, which makes it challenging for both faculty and the students. Furthermore, one of the administrators shared that in the current geopolitical climate, the schools are struggling to hire faculty.

> Nobody wants to come here; they don't even look at the school. They kind of look at Kazakhstan and they're like, oh, that's Russia, you know, we don't want to go there. So, we've been having a lot of problems recruiting faculty, retaining faculty and that, of course, plays into, you know, students not being on the radar. And I think that's one of the biggest factors that contributes to students going into academic probation, because nobody watches over them, right, nobody is there to track their progress, at the end of the semester, they suddenly get F (A5).

To prevent students from falling through the cracks, school administrators became more proactive in requesting to track attendance from instructors and when a student does not show up for more than five lectures they are asked to inform the schools. However, they also note that the overwhelming faculty workload may inhibit it. The university administration previously attempted to implement faculty advising but found it to be less effective than anticipated. One administrator attributes this to the institution's research-oriented culture, which attracts and employs faculty primarily focused on research. Consequently, amidst juggling responsibilities such as teaching in large classrooms, conducting research, and participating in university extracurriculars, advising does not emerge as a top priority for faculty members.

4.6.6.2 Staff Turnover. As it was found, the work culture at the institution is by and large positive due to increased sense of autonomy, absence of micro-management, and ability to influence department-level decisions. One of them shared that the management sets the deadline and is only concerned about the result of the given task but trusts the expertise of its

employees. Moreover, it is believed that the university is sustained by the quality of work of its employees.

Nevertheless, according to three respondents, most staff members are not compensated with a fair salary, especially those working at student-related departments due to the current university pay grade system. Many, as it was reported, are driven by the mission of the institution, but motivation based on a university mission solely is not sustainable claims an employee from the information systems department, adding that many IT experts and developers leave for twice and three times higher salary in other organizations; consequently, there tends to be a high staff turnover rate and the quality of the staff workforce is gradually decreasing.

> This has already been communicated to the new management, they need to realize that in order to improve student retention, they need to think about retention of talented and experienced employees (A2).

In addition, because staff who works with students directly (e.g., psychologists, academic advisors)— normally meet at least fifteen students a day, are often overworked and understaffed — are more likely to fall victim to emotional burnout, therefore, should be paid fairly, asserts one of the interviewed academic advisors.

4.6.6.3 Lack of Collaboration. The interview included a question about how the administrators and university staff members collaborate to decrease the number of academic probation students and therefore improve retention rates. It was also inquired whether they believe students have sufficient support mechanisms at university to thrive academically. Majority of respondents confirm that university provides enough resources and support to undergraduate students. Nevertheless, it is worth noting that beside academic advising office, no other university department is involved in student retention. None of the participants were

able to mention collaborative efforts of institutional departments and offices to help students on or at risk of academic probation. As articulated by one of the academic advisors:

> Now that I think about it, there are no such activities officially, none at all. All these events and support groups that we organize are just our initiative, because we see the problem, and we try to solve it with our own efforts (AA1).

Furthermore, while employees feel free to express their views and to influence department-level decisions, it was found that it became difficult to communicate the need to address certain issues beyond their respective departments. This has been vividly explained by one of the administrators:

> Right now, there's so much bureaucracy between the two layers [top management and university staff] that one side doesn't see the other. Back then, when the university first started, it was fairly small, and it had a flat hierarchy. People could sit down at a table, discuss the problem, then boom, solved. If they [top management] needed something, everything got done virtually overnight. And as the as the machine grew, those layers grew, and now they impede straightforward communication (A5).

To summarize, eight university staff members and administrators participated in interviews, covering various aspects affecting student academic performance and retention. Participants discussed how students from specific school environments tend to struggle. Interviewees highlighted the importance of high school preparation, especially in science majors, and how students' mental health, family situations, and financial pressures impacted their academic performance. Self-efficacy, particularly in terms of motivation and time management skills, was highlighted as crucial for success. Moreover, participants discussed how the choice of major significantly impacted academic performance, with science majors often posing more challenges due to their demanding nature. Organizational factors such as

faculty workload, staff turnover, and lack of collaboration between departments were also identified as barriers to providing effective student support. Summing up, these findings reflect the perceptions and observations of the interviewees regarding the complex interplay of factors affecting student academic success and retention.

4.7. Student Perceptions on Contributing Factors

4.7.1 Introduction

The focus group interview conducted with six undergraduate students (Table 9) revealed a variety of themes. These themes not only overlapped with the perceptions of administrators and staff members but also introduced novel viewpoints. Participants delved into the factors they deemed most influential in achieving academic success, discussed their perceptions of academic probation, and explored their awareness of the university's support services. Finally, participants shared their personal experiences related to academic success and support services.

Table 9

Demographic Characteristics of the Focus Group Interview Participants

Code	Gender	Year	Major
FG1	Female	4	Economics
FG2	Female	2	Chemistry
FG3	Female	4	Nursing
FG4	Female	3	Political Science
FG5	Male	3	Robotics
FG6	Female	3	Mathematics

4.7.2 Academic Probation Factors

Half of the focus group participants asserted that academic success among students hinges on the priorities they set for themselves. While some prioritize grades, many students believe that developing a robust CV with work experience or active involvement in student life is equally important. One participant claimed that career-driven students don't emphasize grades as much because they believe a flawless academic record doesn't guarantee a good salary or a promising career. On the other hand, some students, while still valuing academic performance, also place significant importance on their overall student experience.

Moving forward, three interviewees highlighted several self-efficacy skills that, when lacking, can adversely affect academic performance. One interviewee identified time management as a skill of paramount significance for achieving a high GPA, while another emphasized motivation, which they described as an individual attribute crucial for success. Consistency, that is, completing the course assignments immediately after class and striving toward submitting work strictly before deadlines, substantially helped to improve grades of one student and ultimately reduced the chronic background stress and anxiety. In addition, one interviewee emphasized the significance of “growth mindset”, described as the mindset, where an individual believes in the feasibility of any task if they invest enough time and effort into it.

Mental health emerged as an influential factor and intersecting theme among administrators, staff members, and students. There's a consensus that mental health issues can be profoundly reflected on the academics. Two participants disclosed that they had been diagnosed with mixed anxiety-depressive disorder (MADD) by university psychiatrists, with one of them needing to take an academic leave of absence to focus on recovery. Students believe that mental health issues often arise due to the stress associated with academic

workload, creating a vicious cycle. This cycle involves stressing about grades, which then deteriorates mental well-being, leading to further decline in grades.

A quarter of participants pointed out that the transition from online to offline mode due to COVID-19 had a remarkable impact on their GPA, a concern also echoed by administrators and university staff. Some undergraduate students had exclusively studied online for two years and found the transition to offline learning challenging. Part of the rationale for this difficulty was that students had the option to choose Pass/Fail grades for several courses instead of letter grades. Students also expressed that it was difficult to engage with course material fully online but easier to pass exams. However, once the university switched to traditional offline modes, many students found themselves on academic probation.

Finally, three students shared their views that being placed on academic probation may have an opposite effect by further demotivating them. The competitive environment present at the institution coupled with placement on academic probation may even enhance the negative academic outcomes. Students characterize academic probation as "easy to fall into but hard to get out of" (FG6). Majority of the interviewed fear falling into probation and associate it with dismissal. Additionally, several participants voiced concerns about losing their stipends and fears of not graduating on time.

4.7.3 Support Systems for Academic Success

Students discussed the factors they believed contributed to their academic success, irrespective of their academic standing. This included those who were on academic probation and had firsthand experience with it, as well as those who were not. Five out of six students emphasized the importance of having the support of friends, enabling them to share fears and personal problems, and study together effectively. Two interviewees underscored the significance of faculty support, especially in programs with smaller cohorts, where trusting

and supportive relationships with professors were prevalent and seen as aiding academic success.

All participants demonstrated awareness of the academic advising services available to them, with two students sharing positive experiences with their academic advisors. However, some students felt reluctant to reach out to academic advisors, particularly if their decline in academic performance was due to mental health issues. In such cases, students found the services of psychologists and psychiatrists more beneficial but the process of getting diagnosed and receiving appropriate treatment could take some time. Additionally, two students highlighted the importance of help of the upperclassmen in their major, who provided support and guidance in constructing a suitable course schedule for lower-year students.

Concerns regarding scheduling issues at the university were widespread among participants, especially in schools with high student enrollment. They noted an insufficient number of available slots, potentially due to a shortage of instructors. Moreover, students struggled with constructing a well-balanced course schedule due to a lack of awareness about the optimal course combinations. While academic advisors and the student handbook assisted in choosing required courses and following a plan, they did not provide information about the complexity of individual courses. One interviewee addressed the aforementioned issue by researching information about the content, delivery, and complexity level of potential courses in the informal group chats in advance.

Among other helpful resources mentioned by students were technology tools such as Google Calendar and Notion, where the former was helpful in managing deadlines and the other appears to be a powerful application for automating the learning process. The student described creating a Notion board where they entered the syllabus for each course, set all

assignment deadlines, specified the weight of each midterm, and predicted their final grade. They shared:

> I showed it to my friends, and they said to me, basically, you have recreated [Name of Learning Management System] but yours works. It turns out to be true, I looked at [University LMS], and yes, it should be like what I made in Notion, that is, every deadline, it should be clear and visible, how much it weighs also, but our professors don't always enter this information (FG5).

To conclude, the focus group interview with six undergraduate students revealed a diverse array of themes, providing insights that both aligned with and expanded upon the perspectives of administrators and staff members. Participants discussed various factors influencing academic success, including the importance of prioritizing academic goals versus other pursuits, such as career development and student life involvement. They also emphasized the significance of self-efficacy skills like time management, motivation, consistency, and maintaining a growth mindset. Mental health emerged as a crucial factor affecting academic performance, with students sharing personal experiences of stress and anxiety. The transition from online to offline learning mode was noted as having a significant impact on GPA, with challenges in engagement and grading systems contributing to increased number of academic probation placements. Moreover, participants expressed concerns about the demotivating effects of being on probation and the competitive environment of the institution. Regarding support systems, students highlighted the importance of friendships, faculty relationships, and academic advising services. Half of the focus group highlighted the assistance of psychologists and psychiatrists when faced with mental health issues. Summing up, the focus group findings emphasized the array of factors influencing student academic

success and underscored the significance of strong support systems within the university environment.

Chapter 5. Discussion

5.1. Introduction

The study sought to establish a comprehensive understanding of the root causes of undergraduate academic probation and to assess the current institutional retention strategies at one university in Kazakhstan, with the ultimate goal of providing recommendations on increasing student retention rates for higher education leaders. Despite relatively high retention rates in Kazakhstan compared to universities abroad, there is still a significant number of students leaving universities each year. However, universities appear to lack effective retention strategies. Even in innovative, research-intensive universities like the one examined in this study, there is a notable absence of robust student data analytics to understand why students leave and how to prevent it. This research study addressed this gap by employing a mixed-method design, running a statistical analysis on student data, and learning perspectives of university administrators, staff members, and students. The chapter discusses the study findings through the lens of research literature.

It is appropriate to revisit the research questions of this study, which are as follows:

1. What student characteristics and academic experiences prior entering postsecondary institutions correlate with placement on academic probation?
2. What mechanisms are in place at the institution to prevent student departure?
3. How can the university improve its retention rates based on research results?

5.2. Sociodemographic Factors and Academic Preparation

This section addresses the first research question, the null hypothesis of which was rejected. Among all sociodemographic attributes and prior academic experience factors examined, gender, nationality, language of instruction, and secondary education were found to be impactful. Female students in the sample were less likely to experience academic probation

and generally achieved higher GPA scores, consistent with findings from various studies, such as Srairi (2021). However, it is essential to investigate gender differences across majors and performance levels, since some studies suggest that men tend to be more successful in certain majors (Lehman et al., 2022; Witherspoon & Schunn, 2021), and are more likely to persist in low achievement group (Casanova et al., 2018).

The study revealed that academic readiness, encompassing factors such as the type of secondary school attended, high school GPA, English proficiency test scores, and admission type (foundation or direct), were all significant factors impacting university performance. These findings are consistent with prior research, which has shown that academic readiness is a key predictor of academic success (Reason, 2009). Most importantly, the study yielded an interesting and encouraging finding: neither student's geographic background (urban/rural) nor belonging to socially vulnerable category predicted academic probation or university GPA. There are two possible explanations for the latter phenomenon. Firstly, the socially vulnerable category in this study includes students with at least one deceased or disabled legal guardian, or multi-child families (four and more) but does not consider parental income and education. However, existing literature has identified the negative impact of low parental income and parental education specifically (Bjorklund-Young, 2016; Goyette & Mullen, 2006; Kezar et al., 2023; Peng & Zhang, 2022; Walpole, 2007). Therefore, further investigation into the socioeconomic status of students is warranted.

Alternatively, the absence of a statistically significant association between belonging to a socially vulnerable group and academic performance may indicate the resilience of university students in Kazakhstan and the strength of high-quality secondary education to address socioeconomic gaps. This resilience could explain the persistence of students from low socioeconomic backgrounds, as confirmed by Cabrera et al. (2003), who found that a

challenging secondary curriculum significantly increases postsecondary persistence among low-income students. Moreover, this finding contributes to reframing the discourse surrounding students originating from socially vulnerable backgrounds, portraying them as academically thriving and capable, similar to the conclusions drawn by Nguyen (2023).

An additional significant finding, extending beyond the first research question on sociodemographic factors and academic readiness, is the validation of the impact of student-to-faculty ratio and on-campus housing. The culmination of interviews, statistical analyses on student data, and previous studies confirms these effects. For instance, students majoring in computer science, which has a high student-to-faculty ratio, are more likely to fall into academic probation and earn lower GPA scores at the examined institution. The discovery is consistent with research by Pascarella (2006) and Srairi (2021). Furthermore, as reported by focus group participants, smaller majors, hence smaller classrooms, allow for frequent student-teacher and student-peer interactions, which not only foster positive peer relationships but increases a sense of belonging and faculty mentorship opportunities—all proved to be beneficial for academic persistence (Altermatt, 2019; Bass et al., 2016; Neiterman et al., 2023; Sneyers & De Witte, 2018). Lastly, the opportunity for non-local university students to reside on campus, a privilege in itself, emerges as a predictor of academic performance, supported by both study findings and empirical research (Leveson et al., 2013; Murray, 2014).

5.3. Student Retention Strategy

This section addresses the second research question, which leads the inquiry about the institutional mechanisms to prevent student departure; hence, the identification and evaluation of the existent strategies to retain undergraduate students. The retention strategy at the examined university was not immediately apparent, but upon closer examination, several initiatives and services provided by the institution were identified. Academic advising

emerged as one of them, offering academic guidance to all students, with some receiving mandatory advising sessions and others seeking assistance as needed. Additionally, mental health issues were revealed as a significant factor affecting students' academic success, a trend not unique to students in Kazakhstan but increasingly observed on campuses worldwide (Fischman & Gardner, 2022). Various external and internal influences exacerbate mental health challenges, including family and cultural pressures, financial concerns, and loss of confidence due to the competitive environment. The university acknowledges the importance of psychological counselling services, which are therefore offered to students free of charge. However, both the academic advising and psychological counselling departments at the investigated university are overworked, understaffed, and underpaid. Despite the cognitive and emotional demands of positions that work directly with students, the current institutional pay grade does not adequately compensate staff. Additionally, the budgets allocated to these departments do not always allow for the hiring of more professionals, further hindering their effectiveness. The unfavourable state of the concern is confirmed by Dahlvig et al. (2020) and Lenhardt (2017), who found a strong positive correlation between retention rates and institutional expenditure on academic support and student services.

Using data analytics to enhance student data management and track student progress represents an emerging innovative approach, with most research focused on the U.S., the U.K., and Australia (Pargman & McGrath, 2021; Tight, 2020). This study explored student data management and analytics at a leading institution in Kazakhstan as a part of evaluating its student retention strategy. The findings reveal that, similar to universities worldwide, despite collecting large volumes of student data, university leaders fail to analyze it effectively to derive useful insights, predict academic outcomes, or develop targeted interventions for at-risk students (Foster & Francis, 2020; Herodotou et al., 2019; Tight, 2020). Much like in many

other higher education institutions, the data remains fragmented, siloed in different departments, and difficult to access and integrate. Student data is manually extracted to produce basic reports, lacking valuable recommendations to inform policies and practices for student retention.

5.4. Recommendations to Improve Student Retention

This concluding section answers the third research question by providing recommendations based on lessons learned from the examined institution and past scientific research on student retention and success. First and foremost, a continued focus and investment in high-quality secondary education, including high-intensity curriculum, must be prioritized. Since certain sociodemographic characteristics, such as language of instruction and socioeconomic status, are less malleable, the well-established effectiveness of secondary level academic preparation and experiences on postsecondary academic performance may contribute to bridging the existent societal disparities positively.

Secondly, the universities should pay increased attention to student services, investing more financial resources into academic advising and mental health support. The benefits of these services are validated by both the present study and past research. Reducing stigma around mental health issues and academic setbacks were discussed in greater depth in this study, offering novel perspectives of the Kazakhstani context. The understaffing, unfair compensation, and high workload of the university staff appears to be detrimental to student retention. As brilliantly pointed out by one of the interviewees, if the university wants to retain its students, they must think about retention of talented and dedicated employees first.

Stretching beyond the research questions posed in the study, several organizational factors, particularly balanced student-to-faculty ratio, faculty workload, and availability of student housing, are of paramount significance in ensuring student retention. In fact, as

suggested by one of the academic advisors, all undergraduate students should be provided with on-campus residence regardless of city of residence, at least for the first year of study, as the latter has a positive impact on academic outcomes possibly due to increased opportunities for social integration and decreased time for commuting.

Moving forward with student data management, implementing a comprehensive student data analytics software can substantially streamline the process of tracking student progress. The software should encompass not only sociodemographic data, secondary school records, and level of academic preparedness, but also display the chosen major, on/off-campus residence, class attendance, engagement in learning management systems, and other relevant indicators identified by empirical research. It would help HEI leaders to gain a better understanding of a complex interplay of factors influencing academic success (Phan et al., 2023). Consequently, efficient student data analytics can inform institutional retention strategy, mitigating otherwise preventable instances of academic probation and student departure.

Chapter 6. Conclusion

6.1. Introduction

The chapter summarizes the key findings, which address the research questions posed in the study, acknowledges the limitations of the study, while providing recommendations to the higher education leaders and discussing implications for future research.

6.2. Revisiting Purpose and Objectives

The purpose of this study was to examine the factors leading to student probation and potential withdrawal from higher education institutions. By examining the complex relationship between precollege characteristics and academic probation, the research aimed to offer a detailed understanding of the various factors involved in negative learning outcomes. Furthermore, the study intended to highlight the significant influence of sociodemographic characteristics and academic readiness on student outcomes in postsecondary environment, thereby improving current theoretical models and strengthening institutional strategies to improve student retention. The research questions were addressed and study objectives met sufficiently as a result of statistical analysis of anonymized student data and thematic analysis of administrator, university staff, and student perspectives on contributing factors. As intended, this research lays a solid ground for further research of other influences on student persistence according to Reason's (2009) comprehensive conceptual framework, such as organizational context and peer environment.

6.3. Main Conclusions

Several sociodemographic characteristics, namely gender, language of instruction, and nationality, as well as academic preparation, including type of high school and high school GPA, correlate with placement on academic probation and overall academic performance at

university. The finding urges education policymakers and practitioners to maintain pronounced emphasis on providing high quality secondary education.

Student services at universities in the form of academic advising and mental health support should be adequately financed and prioritized. It's worth noting that even in innovation-driven and well-resourced higher education institutions like the one examined, student support departments often face challenges of being understaffed, overworked, and underpaid. This situation speaks volumes about the conditions in less privileged institutions in Kazakhstan. Moreover, decreasing faculty workload and thus student-to-faculty ratio, especially in majors with large number of students, can improve sense of belonging, classroom interactions, and allow universities to introduce other forms of student support, such as faculty mentorship.

Finally, despite the efforts to monitor student progress, the process of analyzing student data to inform institutional retention strategy at the investigated university is significantly hindered by disintegrated system for student data management. The universities are, therefore, in dire need of introducing a comprehensive student data analytics system, which would potentially allow administrators to identify at-risk students early and offer targeted interventions to prevent their departure.

6.4. Limitations

A noteworthy limitation of this study lies in the utilization of student data sourced from one university, which operates as a large, well-resourced, four-year institution. While this approach offers a focused examination within a specific academic context, it inherently constrains the generalizability of findings to broader higher education settings in Kazakhstan. Moreover, the unavailability of data pertaining to several crucial components of conceptual framework, such as student dispositions and students' integration in peer environments

(classroom, out-of-classroom, curricular experiences), poses a further limitation. Nevertheless, the limitations were addressed by the extensive analysis of a very large student data sample ($n<7000$) and perspectives of university administrators, staff, and students.

6.6. Future Research Directions

Some study limitations suggest potential avenues for future research. One direction could involve a deeper investigation into the influence of sociodemographic factors, specifically examining the effects of parental income and parental education on postsecondary academic performance in the context of Kazakhstan. Furthermore, there is a significant gap in understanding the impact of need-based financial aid in Kazakhstan. Currently, university admissions are solely based on merit, and additional need-based support offered by the university considers family composition and disability status only. However, a study on the impact of need-based financial aid among low socioeconomic status students (based on family income and parental education and/or occupational status) can provide valuable insights.

Despite numerous studies confirming gender as a predictor of university GPA and graduation rates, with female students generally earning higher GPA scores, persisting, and graduating more on average, studies on gender differences across different majors and achievement groups should be conducted. For instance, some empirical evidence claims that male students tend to perform better in majors associated with male-dominated industries.

Among other factors, student dispositions—the ways in which students engage in the learning process, their commitment to graduation, and their self-efficacy strategies—are influential in student persistence and should be examined more thoroughly. The organizational context, including institutional size, selectivity, type, as well as student peer environments, are all ripe for investigation and, in fact, are understudied not only in Kazakhstan but across the world. A study evaluating different institutions along with assessment of retention strategies

may offer a broader understanding of the student retention in higher education institutions of Kazakhstan. Finally, higher education institutions would greatly benefit from empirical evidence on the effect of using a comprehensive student data analytics tool to increase student retention. Overall, this study provides a firm groundwork for building a vast understanding of the contributing factors to the academic performance of university students in Kazakhstan along with developing effective retention strategies, and thus should be strengthened by further research.

6.7. Reflections on the Research Experience

On a final note, I would not be exaggerating if I said working on this thesis has been incredibly challenging. For one, the concept of student retention is quite new to higher education in Kazakhstan. Secondly, even if student success factors elaborated upon in this work seem to be apparent at first sight, I found that every single one possessed a level of complexity to it, which made it hard to organize and place within a broader context of retention meaningfully. After all, students are very complex beings and there are a variety of influences at play when it comes to their academic success. Yet I am pleased with the result. The result of reading countless research articles and seminal works of scholars who wondered the same questions before me, who cared about the fate of struggling students and asked critical questions: “Why do students leave?” and “What can universities do to prevent that?” In fact, investigating this phenomenon tested my own academic persistence. Without further ado, I firmly believe that this study holds valuable implications for higher education in Kazakhstan and I am determined to apply the lessons learned in my professional career as a higher education leader.

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Appendix A

Declaration of the Use of Generative AI

Thesis Title: Understanding Undergraduate Student Probation

I hereby declare that I have read and understood NUGSE's policy concerning appropriate use of AI and composed this work independently (please check one):

☑ with the use of artificial intelligence tools, or

☐ without the use of artificial intelligence tools.

(If you have used AI tools as defined in the GSE policy document, please complete the rest of this form.)

During the preparation of this thesis/examination, I used ChatGPT to quickly find the set of synonyms for words I had a tendency to overuse in my writing.

I also declare that I

☑ am aware of the capabilities and limitations of AI tool(s),

☑ have verified that the content generated by AI systems and adopted by me is factually correct,

☑ am aware that as the author of this thesis I bear full responsibility for the statements and assertions made in it,

☑ have submitted complete and accurate information about my use of AI tools in this work, and

☑ acknowledge that there may be disciplinary consequences if I have not followed NUGSE's guidelines regarding AI appropriate use.

Name: Manat Sergazina Signature: Date: 22.04.2024

Appendix B

Data Request Form

Manat Sergazina
Master of Science Student in Higher Education Leadership
Graduate School of Education
Nazarbayev University

Subject: Request for Anonymized Student Data

I am writing to formally request an anonymized student data for my research project titled "Understanding Undergraduate Student Probation: An Investigation of Contributing Factors at One University in Kazakhstan." My research aims to investigate the factors contributing to undergraduate student probation and potential withdrawal from higher education institutions in Kazakhstan. By focusing on the intricate interplay between student precollege attributes and student departure, the research seeks to evaluate the influence of students' sociodemographic traits, academic preparation, and performance on academic success.

The data required for this research project includes:

1. Gender
2. Age
3. Ethnicity
4. Region/City
5. Type of secondary school
6. High school GPA
7. UNT score
8. Parental education
9. Belonging to a socially-vulnerable category (SVC)
10. Direct or Foundation program admission
11. Major
12. Current GPA
13. Academic probation (Instance of placement on probation at any point of study)
14. Academic misconduct (Instance of academic misconduct at any point of study)
15. On-campus residence

I acknowledge the sensitive nature of the data and commit to maintaining the confidentiality and security of the data throughout the research process. I understand that the data provided will be in compliance with all applicable privacy laws and regulations and will be anonymized to ensure confidentiality. All data provided will be used solely for the specified research project and will not be shared with any third parties.

Upon completion of the research project, I agree to adhere to a data retention and destruction plan as agreed upon by both parties. The data will be securely destroyed or returned to Nazarbayev University, as per your guidelines. I commit to providing the university with a copy of any publications, reports, or presentations resulting from the use of the data, in order to keep the institution informed of the research outcomes.

I would like to express my gratitude for considering my request and for your willingness to support my research endeavors. I look forward to collaborating with you and conducting this research in accordance with the highest ethical standards. If you have any

questions or require further information, please do not hesitate to contact me at (+7775120147) or manat.sergazina@nu.edu.kz. I am readily available to discuss any aspects of this request or to provide additional details as needed.

Sincerely, Manat Sergazina.

Appendix C

Informed Consent Form

For University Administrators

Title of the Study: Understanding Undergraduate Student Probation: A Mixed-Methods Investigation of Contributing Factors at One University in Kazakhstan

My name is Manat Sergazina and I am a Master's student at Graduate School of Education at Nazarbayev University. I am researching the issue of academic probation in higher education with a purpose of building a comprehensive understanding of its potential causes and investigating what universities can do to facilitate student success. Your expert knowledge in the field of higher education is highly valued, and I appreciate your time and willingness to contribute to my research.

I kindly request your permission to take part in this study. The following table summarizes the data I plan to collect from you:

Time	Data collection tool	Duration
January 2024-February 2024	One interview	40-60 minutes

With your permission, the interview session will be audio recorded for the purpose of accurate transcription and analysis. Participation is entirely voluntary, and all participants have the right to withdraw their consent or discontinue participation at any time. The alternative is not to participate. All participants have the right to refuse to answer particular questions. Your responses and any information shared during the interview will be treated confidentially. All data collected will be anonymized, and any identifying information will be removed.

While there are no direct benefits to you personally, your participation has the potential to make a positive impact on our understanding of student retention, especially in the context of Kazakhstan. Unfortunately, this issue is highly under researched in our country and your participation may contribute to the improvement of institutional practices in student support and retention.

I do sincerely hope that you will give permission for your participation. Please contact me at (+77751201047) or manat.sergazina@nu.edu.kz if you have any questions, concerns or complaints about this research, its procedures, risks and benefits. Any other questions or concerns may be addressed to the Nazarbayev University Institutional Research Ethics Committee, resethics@nu.edu.kz.

With warmth and gratitude, I ask you to sign this consent form if you agree to participate in this study.

Signed _____ Date _____

Yours sincerely,

Manat Sergazina manat.sergazina@nu.edu.kz

Signature:

Appendix D

Interview Protocol for University Administrators

Name of the department:

Interview duration:

General information	
1	Can you talk a little bit about the university's policies and procedures regarding student probation?
2	How does the university handle the process of identifying and placing students on probation?
3	What support services and resources does the university offer to students who are placed on probation?
4	Can you describe any specific interventions or programs the university has implemented to help students avoid probation?
Factors Influencing Academic Success	
5	What do you think are the most influential factors in students' academic success?
6	Are there any noteworthy trends or patterns you've observed in students who successfully recover from academic probation?
7	Are there any noteworthy trends among undergraduate students in general when it comes to academic performance (across gender, major, year of study, etc)?
8	How does the university track and monitor the progress of students on probation? (Are there any early warning systems in place?)
Socio-Demographic Factors	
9	Have you noticed any disparities in the impact of probation based on students' socio-demographic backgrounds?
10	Are there any initiatives or strategies in place to address the unique challenges faced by students from underrepresented or low-income backgrounds?
Support and Interventions	
11	What strategies or resources are available to assist students with time management and

	study skills?
12	Are there opportunities for students to seek academic help or tutoring, and how widely are these resources utilized?
13	Can you describe any collaborative efforts between different university departments to support students at risk of probation?
Feedback and Improvement	
14	How does the university collect feedback from students about their experiences with academic support services?
15	In your opinion, what improvements or enhancements could be made to better support students and reduce the incidence of academic probation?
16	Are there any innovative approaches or strategies, such as developing a data analytics tool, the university is considering to address student probation in the future?
Challenges and Opportunities	
17	What do you see as the most significant challenges in identifying students at risk of probation early in their academic journey?
18	In your opinion, what opportunities exist for the university to enhance its support services and interventions for students on probation?

Appendix E

Interview Protocol

For Academic Advisors

Discipline/field of the academic advisor:
Interview duration:

Interview questions:

General information	
1	Can you briefly describe your role as an academic advisor at the university and the services you provide to students? How long have you been working as an academic advisor?
Common student issues	
2	In your interactions with students, what are some of the most common academic challenges or issues they seek guidance for?
3	Are there specific patterns or recurring themes you've observed among students who eventually find themselves on academic probation?
4	From your perspective, what are the most significant non-academic challenges that students face, which may impact their academic performance?
Academic probation	
5	How well do you believe students understand the consequences of academic probation, and what steps do you take to ensure they are informed?
6	Can you describe any proactive measures or interventions you use to help students who are at risk of probation or who have recently been placed on probation?
7	From your standpoint, do you believe that the university provides sufficient resources and support services to assist students in addressing academic challenges?
Challenges	
8	What do you find to be the most challenging aspects of assisting students who are on academic probation or at risk of probation?
9	Are there any specific academic or personal issues that you find particularly complex to address, and how do you navigate them?

10	How do you collaborate with other university departments or colleagues to provide holistic support to students facing academic difficulties?
Feedback and Improvement	
11	Are there mechanisms in place for academic advisors to provide feedback or suggestions for improving the university's support system for students on probation?
12	Based on your experiences, what recommendations or enhancements would you propose to better assist students in academic distress?

Appendix F

Informed Consent Form

For Focus Group Interview with Students

Title of the Study: Understanding Undergraduate Student Probation: An Investigation of Contributing Factors at One University in Kazakhstan

Dear student,
My name is Manat Sergazina and I am a Master's student at Graduate School of Education at Nazarbayev University. I am researching the issue of academic probation in higher education with a purpose of building a comprehensive understanding of its potential causes and investigating what universities can do to facilitate student success. Your insights and experiences are highly valued, and I appreciate your time and willingness to contribute to my research. The following table summarizes the data I plan to collect from you:

Time	Data collection tool	Duration
February 2024	Focus group interview	60 minutes

The focus group will involve five to seven students from different schools within the university, representing different years of study. You will be given a question or a topic to discuss among yourselves. The researcher will act as a facilitator and moderator. This is done with the purpose of learning what students truly think, what their concerns are and what they believe should be done to alleviate the issue. Students will be asked to share their opinion, experiences or recommendations.

With your permission, the focus group interview session will be audio recorded for the purpose of accurate transcription and analysis. Participation is entirely voluntary, and all participants have the right to withdraw their consent or discontinue participation at any time. There are minimal risks associated with participating in this study. You may experience discomfort when discussing certain topics or sharing personal experiences. Please be assured that your well-being and comfort are a priority, and you can choose not to answer any questions that you find uncomfortable. All participants have the right to refuse to answer particular questions. Your responses and any information shared during the interview will be treated confidentially. All data collected will be anonymized, and any identifying information will be removed.

While there are no direct benefits to you personally, your participation has the potential to make a positive impact on our understanding of student retention, especially in the context of Kazakhstan. Unfortunately, this issue is highly under researched in our country and your participation may contribute to the improvement of institutional practices in student support and retention.

I do sincerely hope that you will give permission for your participation. Please contact me at (+77751201047) or manat.sergazina@nu.edu.kz if you have any questions, concerns or complaints about this research, its procedures, risks and benefits. Any other questions or concerns may be addressed to the Nazarbayev University Institutional Research Ethics Committee, resethics@nu.edu.kz.

With warmth and gratitude, I ask you to sign this consent form if you agree to participate in this study.

Signed _____ Date _____

Yours sincerely,

Manat Sergazina manat.sergazina@nu.edu.kz

Appendix G

Focus Group Interview Script

English: Hello, I would like to thank you very much for your participation and contribution to my study. My name is Manat and I am a Master's student at NU. Today I want to talk about student success and academic probation in particular.
I have sent you the informed consent form, could you please confirm your consent to participate verbally. Each of you has been assigned code, before you speak, could you please say it out loud for transcription accuracy. For example: Three. I believe that--
Your participation is confidential, you may refuse to answer any of the questions or to participate completely at any point in the interview.
There are no right or wrong answers and this is not a test so please give your honest opinions.
Some ground rules:

- Talk loudly and take turns talking, or the mic won't pick-up comments.
- I also need to hear from everyone.
- We must stick to the discussion agenda as there is a lot to cover, so please don't be offended if I have to cut you off at all. There's time at the end for other points we don't cover.

Let's get to know each of you, could each of you please share what course and major you are in. And then, what do you enjoy most about being a student?

Russian: Здравствуйте! Выражаю большую благодарность за Ваше участие и вклад в мое исследование. Я отправила Вам форму об информированном согласии, не могли бы Вы пожалуйста подтвердить ваше согласие на участие устно.
У каждого из Вас есть код, перед тем как Вы будете говорить, не могли бы Вы пожалуйста вслух сказать его для точности транскрибирования. К примеру: Три. Я считаю, что..
Ваше участие конфиденциально, вы можете отказаться от ответа на любой из вопросов или полностью от участия в любой момент интервью.
Здесь нет правильных или неправильных ответов, это не тест, поэтому, пожалуйста, высказывайте свое честное мнение.
Несколько правил:

- Говорите громко и по очереди, иначе микрофон не сможет улавливать комментарии.
- Мне также необходимо услышать каждого.
- Мы должны придерживаться графика дискуссии, так как нам предстоит многое обсудить, поэтому, пожалуйста, не обижайтесь, если мне придется прервать вас. В конце будет время для других вопросов, которые мы не охватили.

Давайте познакомимся, не мог бы каждый из Вас пожалуйста поделиться на каком курсе и специальности вы учитесь. А затем, что вы любите больше всего в вашем студенчестве.

Kazakh: Сәлеметсіз бе! Сіздің қатысқаныңыз және менің зерттеуіме қосқан үлесіңіз үшін үлкен алғысымды білдіремін. Бүгін мен студенттердің жетістіктері мен академиялық сынақ мерзімі туралы талқылауым келеді. Мен сізге келісім формасын жібердім, қатысуға келісіміңізді ауызша растай аласыз ба?

Әрқайсыңызда код бар, сіз сөйлемес бұрын, транскрипция дәлдігі үшін оны дауыстап айта аласыз ба? Мысалы: үш. Мен ойымша..
Сіздің қатысуыңыз құпия, сіз кез-келген сұраққа жауап беруден немесе сұхбаттың кез-келген сәтінде қатысудан бас тарта аласыз.
Дұрыс немесе бұрыс жауаптар жоқ және бұл сынақ емес, сондықтан өз пікіріңізді білдіріңіз.
Бірнеше ережелеріміз бар:

- Дауыстап және кезекпен сөйлеңіз, әйтпесе микрофон сіздің дауысыңызды қабылдай алмайды.
- Мен әрқайсысын естуім керек.
- Біз пікірталас кестесін ұстануымыз керек, сондықтан мен сізді үзуім керек болса, ренжімеңіз. Соңында біз қамтымайтын басқа мәселелерге уақыт болады.

Ал енді танысайық, Сіздердің әрқайсыларыңыз қандай курста және мамандықта оқитындарыңызбен бөлісе аласыз ба? Университет студенті ретінде сізге ең үлкен қуаныш не әкеледі?

Cue Phrases:
“Some people have been quiet but may have views to share. Would you like to speak now?”
"Некоторые люди молчат, но, возможно, им есть чем поделиться. Хотите ли вы высказать свое мнение сейчас?"
"Кей қатысушылар үнсіз қалды, бірақ олар өз көзқарастарымен бөліскісі келуі мүмкін. Қазір сөйлегіңіз келе ме?”

Topic 1: Student Success and Challenges

Russian: Не могли бы вы поделиться своими мыслями о том, что, по вашему мнению, способствует успеху студентов в университете. Какие личные или академические факторы важны?
Можете ли вы рассказать о проблемах, с которыми вы сталкивались или сталкиваетесь в настоящее время на своем академическом пути, естественно, только если вам комфортно делиться этой информацией. Что делает эти трудности трудно преодолимыми?

English: Can you share your thoughts on what you believe contributes to student success at the university. What personal or academic factors are important?
Can you discuss any challenges you have faced or are currently facing in your academic journey, naturally only if you feel comfortable sharing this information. What makes these challenges difficult to overcome?

Kazakh: Сіздің ойыңызша, студенттердің академилық жетістігіне ең күшті ықпал ететін жеке немесе академиялық факторлары қандай?
Сіз өзіңіздің академиялық жолыңызда кездескен немесе қазіргі уақытта кездесетін мәселелер туралы айта аласыз ба, әрине, егер сіз бұл ақпаратты бөлісуге ыңғайлы болса ғана. Неліктен сіздердің пікірінше, бұл қиындықтар туындайды?

Topic 2: Understanding Academic Probation

English: Transitioning to the concept of academic probation, are you familiar with it and its implications? Please share your personal perceptions of what academic probation means.

Russian: Переходя к академическому испытательному сроку, знакомы ли вы с этим понятием и его последствиями? Не могли бы Вы поделиться своим личным восприятием того, что означает академический испытательный срок для Вас.

Kazakh: Академиялық сынақ мерзіміне көшсем, сіз осы ұғыммен және оның салдарымен таныссыз ба? Сіз үшін академиялық сынақ мерзімі нені білдіреді?

Topic 3: University Support and Resources

English: To delve into the support and resources provided by your university for students facing academic challenges, are you aware of university support services? Have you personally utilized any of these resources and how effective do you perceive them as to help students avoid or recover from academic probation?

Russian: Чтобы углубиться в тему поддержки и ресурсов, предоставляемых Вашим университетом студентам, столкнувшимся с академическими проблемами, скажите, знаете ли вы об университетских службах поддержки? Пользовались ли вы лично какими-либо из этих ресурсов и насколько эффективными вы их считаете, чтобы помочь студентам избежать академического испытательного срока или восстановиться после него?

Kazakh: Академиялық қиындықтарға тап болған студенттерге сіздің университет ұсынатын қолдау мен ресурстар тақырыбына тереңірек үңілу үшін университеттің қолдау қызметтері туралы білесіз бе? Сіз осы ресурстардың кез келгенін жеке пайдаландыңыз ба және студенттерге академиялық сынақ мерзімін болдырмауға немесе түскеннен кейін қалпына келтіруге көмектесу үшін оларды қаншалықты тиімді деп санайсыз?

Topic 4: Suggestions for University Improvement

English: Continuing the discussion, can you brainstorm ideas and suggestions for how your university could enhance its support for students to avoid academic probation and succeed academically? You can suggest innovative approaches or programs you believe could address these issues effectively.

Russian: Продолжая дискуссию, выскажите идеи и предложения о том, как Ваш университет мог бы усилить поддержку студентов, чтобы они могли избежать испытательного срока? Вы можете предложить инновационные подходы или программы, которые, по вашему мнению, могли бы эффективно решить эти проблемы.

Kazakh: Талқылауды жалғастыра отырып, сіздің университетіңіз студенттерге сынақ мерзімінен аулақ болу және оқуда табысқа жету үшін қолдауын қалай арттыра алатыны туралы идеялар мен ұсыныстарды талқыласаңыз болады. Осы мәселелерді тиімді шеше алады деп санайтын инновациялық тәсілдерді немесе бағдарламаларды ұсынуға болады.

Topic 5: Personal Experiences and Insights

English: Can you share personal stories, insights, or anecdotes related to your academic journeys? You can also discuss specific techniques and strategies that have helped you to succeed academically.

Russian: Не могли бы Вы рассказать о своих личных историях или примерах, связанных с Вашим учебным процессом. Вы также можете рассказать о конкретных моментах или стратегиях, которые помогли Вам добиться успеха в учебе?

Kazakh: Академиялық сапарларыңызға қатысты жеке оқиғаларыңызбен, түсініктеріңізбен бөлісе аласыз ба? Сондай-ақ оқуда табысқа жетуге көмектескен нақты стратегияларды талқылай аласыз.

Closing Remarks:

English: Wrapping up, I express my sincere gratitude to all of you once more to all of you for your valuable contribution and for sharing your perspectives. I will do my best to analyze your experiences to understand what factors are the most influential in student academic performance. I would like to develop effective recommendations to universities in Kazakhstan so they could support their students better.

Russian: Подводя итоги, я еще раз выражаю всем вам искреннюю благодарность за ценный вклад и за то, что поделились своими взглядами. Я приложу все усилия, чтобы проанализировать ваш опыт и понять, какие факторы оказывают наибольшее влияние на успеваемость студентов. Я хотела бы разработать эффективные рекомендации для университетов Казахстана, чтобы они могли лучше поддерживать своих студентов.

Kazakh: Қорытындылай келе, барлығыңызға құнды үлестеріңіз үшін және өз көзқарастарыңызбен бөліскендеріңіз үшін тағы да шын жүректен алғысымды білдіремін. Студенттердің үлгеріміне қандай факторлар көбірек әсер ететінін түсіну үшін мен сіздің тәжірибеңізді талдауға бар күшімді саламын. Мен Қазақстанның университеттеріне өз студенттеріне жақсы қолдау көрсету үшін тиімді ұсыныстар әзірлегім келеді.