



Perceptions of Social Inclusion in Ukrainian Higher Education: Demographic Differences

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Abstract

In the context of Ukraine's European integration and ongoing full-scale war, social inclusion has become an important issue for Ukrainian higher education institutions. This study analyses demographic differences in perceptions of the implementation of social inclusion. An online survey was conducted from May to July 2025 with 821 respondents: students, academic staff and heads of structural units. The questionnaire included 34 closed questions on inclusive practices, open-ended questions and demographic items. The analysis combined descriptive and inferential statistics with exploratory factor analysis, reliability testing, and thematic analysis. Factor analysis supported the use of the aggregated inclusivity indicator (P_{inc}) and three subscales, although the formal access subscale had lower reliability. The results showed uneven implementation of inclusive practices: flexible learning formats (88.7%) and diverse opportunities to demonstrate knowledge (82.6%) were among the most developed, while information accessibility (32.2%) and staff training in inclusive education (35.0%) were among the weakest. Gender differences were not statistically significant for the total indicator. Age differences were statistically significant but small and inconsistent across subscales. Role differences were also statistically significant, with heads of structural units assessing inclusion more favourably than students and academic staff. Open-ended responses showed that students and younger respondents more often raised support, safety, information and adapted materials, whereas staff and heads more often referred to funding and resources. The findings indicate the need for clearer student information, better access to adapted materials, inclusive-education training and stronger coordination through inclusion officers.

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Practitioner Notes

1. Provide regular inclusive-education training for academic staff, focusing on adapted materials, student-centred teaching and diverse student needs.
2. Establish inclusion officers or offices to coordinate, monitor and communicate inclusion policies.
3. Improve students' awareness of available support, accessibility measures and assistance procedures, especially among younger students.
4. Strengthen access to adapted learning materials, assistive technologies and flexible learning arrangements.
5. Involve heads of structural units in coordinating inclusion measures, supporting academic staff and monitoring progress, while expanding evidence from underrepresented and war-affected regions.

Keywords

Social inclusion, inclusive education, higher education, demographic differences, barrier-free education

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Introduction

The development of higher education is linked to the implementation of social inclusion principles, which ensure equal access to quality education regardless of gender, age, socio-economic status, ethnicity, or health condition. Inclusion in higher education is viewed not only as the removal of physical barriers but also as the creation of a supportive environment that covers cultural, psychological, and organizational aspects. This approach seeks to create an educational environment where all students can fully realise their potential through equal opportunities and support.

At the international level, inclusivity is recognised as one of the key priorities for the development of higher education. For instance, the Rome Ministerial Communiqué (2020) emphasises the need to create conditions for equal access to higher education for every student and to provide full support in completing their studies. The Tirana Ministerial Communiqué (2024) highlights the importance of building an inclusive European Higher Education Area as the foundation for a cohesive, resilient, and peaceful Europe, where students receive support at all stages of their educational trajectories.

Ukraine, which has declared a strategic course toward membership in the European Union, is obligated to adapt its higher education system to European standards and values, among which inclusion holds a central place. This provision is enshrined in the Strategy for the Development of Higher Education in Ukraine for 2022–2032, which defines priorities of accessibility, equality, and diversity (Ministry of Education and Science of Ukraine, 2022). Another important guideline is the National Strategy for the Development of Barrier-Free Space until 2030, which aims to eliminate physical, informational, digital, and other barriers in higher education (Cabinet of Ministers of Ukraine, 2021).

The issue of inclusion has gained particular relevance in connection with Russia's full-scale war against Ukraine. The war has led to the emergence of new categories of students – internally displaced persons, veterans, people with disabilities, and those who have suffered physical and psychological trauma. This brings new tasks for higher education institutions: creating barrier-free infrastructure, providing comprehensive psychological and social support, organising retraining programs, and facilitating the integration of affected groups into society and the labour market. In crisis conditions, the social mission of institutions becomes particularly important, extending beyond educational activities to include active support for communities and contributions to national resilience.

Demographic factors may shape perceptions of inclusion and experiences of inclusive practices within higher education institutions. Access to institutional support and participation opportunities may vary across social and demographic groups. Gender can be associated with differences in access to leadership roles or financial support; students with lower socio-economic status may be more exposed to social isolation; and ethnic minority students or persons with disabilities may face barriers related to adapted learning materials, accessible infrastructure or language support. Against this background, this study examines how perceptions of social inclusion in higher education differ across demographic and institutional groups in wartime Ukraine. By identifying variations in perceptions of inclusive practices across these groups, the study contributes to a more nuanced understanding of inclusion in crisis-affected higher education and provides evidence to inform more targeted institutional policies and support measures.

Literature

Social inclusion in higher education is considered by international organisations and scholars to be a key factor in ensuring equal access to quality education and sustainable societal development. The modern discourse goes beyond the traditional understanding of inclusion as support for persons with disabilities, encompassing a broader range of groups, including migrants, internally displaced persons, ethnic minorities, persons with different gender identities, and socially vulnerable populations. In this context, education is seen as a mechanism for overcoming stereotypes and ensuring social justice, which contributes to the formation of an inclusive society (Claeys-Kulik et al., 2019; Korthals Altes et al., 2024). According to researchers, inclusion is aimed not only at ensuring equal access but also at fostering a sense of belonging among students and improving the overall quality of education (Ainscow, 2020; Claeys-Kulik et al., 2019; Nĩmante et al., 2021; Rosado-Castellano et al., 2022).

International organisations such as UNESCO (2020), Inter-agency Network for Education in Emergencies (2023), and UNICEF (2014) emphasise that inclusive education should ensure active participation and successful learning for all individuals, regardless of their social, cultural, or physical characteristics. These approaches are based on the philosophy of human-centredness, which recognises the priority of dignity and potential of each student (Morus, 2025; Udych et al., 2025). In the Ukrainian context, these ideas gain particular relevance due to the full-scale war, which has intensified challenges for social inclusion, particularly through the increase in the number of internally displaced persons and the need to restore educational communities (Hurenko et al., 2023; Nesterova & Orzhel, 2023; Tsybuliak et al., 2024). Ukrainian scholars argue that social inclusion contributes to the sustainable development of educational communities and the restoration of societal integrity (Nesterova & Orzhel, 2023).

Understanding how different socio-demographic groups perceive inclusive practices is therefore central to this study. Studies indicate that the attitudes of students and academic staff can vary significantly depending on a number of factors which affect academic outcomes, social integration, and the effectiveness of higher education institutions' policies. In particular, the results of Grossman et al. (2025) demonstrated differences in students' perceptions of universities' efforts to implement principles of diversity, equity, and inclusion across racial and ethnic groups. At the same time, as shown by Mapuya (2025), attitudes toward social inclusion significantly correlate with students' ideological preferences, their social background, and the environment in which they are, with a significant portion of students from disadvantaged social groups continuing to feel marginalised and excluded from the academic community. Equally indicative is the study by Crisol-Moya et al. (2023), which found that perceptions of inclusion differ significantly by gender, age, and prior experience interacting with persons with special educational needs, indicating that personal characteristics and life trajectories significantly influence the evaluation of inclusive practices. In turn, the study by Tsybuliak et al. (2024) in the context of Ukrainian universities revealed that faculty members evaluate the level of inclusion somewhat lower compared to managerial and support staff, although these differences are not statistically significant, and almost half of the respondents (47.8%) generally characterise it as high. At the same time, identification with vulnerable groups, including internally displaced persons or people with traumatic experiences, has only a minimal impact on the perception of inclusion, indicating the formation of a shared positive vision of inclusive practices in the higher education system, even in wartime conditions. Notably, the results of Martin et al. (2023) did not confirm significant

differences in the perception of inclusive practices among academic staff of different genders, ethnic origins, teaching experience, and levels of pedagogical competence. Such heterogeneity of conclusions in the scientific discourse points to the multidimensional nature of inclusion, which requires further study taking into account intercultural, socio-economic, and institutional features.

Practical aspects of inclusion in higher education are explored through the development of models and indicators. For example, Hassan et al. (2022) developed an international social integration index, where education is one of the key dimensions. Hubbard and Gawthorpe (2023) define main areas of institutional activity, such as communication, leadership, well-being, development and learning, partnership, reflection, and evaluation, which contribute to inclusivity. Jaegler (2022) proposes a methodology for analysing inclusion through the prism of stakeholders' interests – students, academic staff, graduates, and partners. The methodology of Mezzanotte and Calvel (2023) is built on the principle of “input resources – processes – outcomes,” which serves as the basis for forming a balanced system of indicators. These approaches demonstrate the need for a comprehensive evaluation that considers both processes and outcomes.

At the same time, despite the availability of models and indicators, studies show that higher education institutions face several obstacles during the implementation of inclusive policies (Filippou et al., 2025; Gonzalo et al., 2024; Oswal et al., 2025). Among the most common problems are insufficient preparation of academic staff to work with students with special educational needs, lack of individual educational plans, and limited infrastructure accessibility (Fiuza-Asorey et al., 2023; Korthals Altes et al., 2024; Moral Mora et al., 2021; Moriña, 2017; Nīmante et al., 2021; Rashid & Wong, 2023; Yusof et al., 2020; Zabeli et al., 2021). Communication barriers and low awareness of inclusive practices also complicate the implementation of inclusive policies and practices (Mapuya, 2025; Núñez Nogueroles & Freire, 2025). In Ukrainian higher education, these challenges are also reflected in uneven faculty readiness for inclusive education, particularly in relation to knowledge of legal and regulatory documents, the organisation of an inclusive learning environment and awareness of implementing an inclusive approach in the educational process (Lopatina et al., 2024).

To overcome the challenges faced by higher education institutions during the implementation of inclusive policies and practices, researchers suggest creating offices for supporting persons with disabilities, investing in infrastructure adaptation, implementing digital technologies, and training programs for staff (Collins et al., 2019; McEwen et al., 2025; Moral Mora et al., 2021; Nīmante et al., 2021; Pacheco et al., 2020; Yusof et al., 2020). Collaboration among all participants in the educational process, increasing awareness, and forming a culture where every student feels valued and included are also important (Fernández-Batanero et al., 2022; Iniesto & Bossu, 2023; Zabeli et al., 2021; Zorec et al., 2024). Studies show that the use of innovative inclusive learning technologies increases motivation, engagement, and learning quality, as well as improving relationships between faculty members and students (Castellano-Beltrán et al., 2025).

Summarising the results of studies by various scholars and international organisations, it should be noted that, despite significant scientific contributions to the theoretical justification of inclusive practices, the development of models for their evaluation, and the identification of key barriers to implementation, a number of aspects remain insufficiently studied. In particular, demographic differences in perceptions of the priority of social inclusion among participants in the educational process warrant further research. Examining these differences is important because they may

shape how inclusive policies and practices address the needs of different groups within the academic community and contribute to the development of a more inclusive educational environment.

The expectation that demographic characteristics shape perceptions of inclusion rests on the assumption that respondents' institutional positions shape what they know about inclusion policies and how they experience them. Those involved in designing or overseeing such policies may assess them through their formal presence and implementation mechanisms, whereas students and academic staff may evaluate them through direct access to support, safety, adapted materials, and everyday learning conditions. The same logic applies to age and length of service, which are closely tied to role in the academic community: more senior members are more likely to hold positions that involve shaping or implementing policy. Gender is included as a third characteristic because the literature on perceptions of inclusion reports mixed findings, ranging from a significant association (Crisol-Moya et al., 2023) to its absence (Martin et al., 2023), leaving the question open in the Ukrainian context.

On this basis, the study tests the following hypotheses. H1: The perception of the implementation of the social inclusion priority differs by institutional role, with heads of structural units assessing inclusion more favourably than academic staff and students. H2: The perception of inclusion differs by age, with older respondents assessing it more favourably, in part because age is associated with policy-shaping roles. H3: The perception of inclusion does not differ substantially by gender. H4: The strength and direction of these differences vary across the dimensions of the instrument, so that demographic effects are more pronounced for some aspects of inclusion than for others.

Method

Research Design

The purpose of the study is to determine whether and how perceptions of the implementation of the social inclusion priority in Ukrainian higher education institutions differ across three demographic characteristics of the academic community (gender, age, and institutional role) and to translate these differences into targeted recommendations for inclusion policy and practice. To achieve this purpose, the study pursues four objectives: (1) to assess how respondents perceive the current state of inclusive policies and practices across thirty-four indicators; (2) to assess the dimensional structure and reliability of the 34-item instrument and justify the use of the aggregated inclusivity indicator and subscale-level analysis; (3) to test for differences in perceived inclusion by gender, age, and role, both for the aggregated indicator and for its underlying dimensions; and (4) to examine, drawing on respondents' open-ended answers, whether the barriers and priorities raised differ by respondent group and how these differences relate to the demographic patterns found in the closed questions.

The study combined quantitative methods with thematic coding of responses to open-ended questions. This approach allowed quantitative group comparisons to be complemented by thematic interpretation of respondents' open-ended answers.

Measures

Data collection was conducted using Google Forms. For this purpose, a structured questionnaire was developed, which included:

- Closed questions on the implementation of inclusive practices in higher education institutions (34 indicators). The questions covered various aspects of implementing the social inclusion priority (e.g., institutional policy, barrier-free environment, financial support, program adaptation, types of support, information accessibility). Response options: “yes,” “no,” “difficult to answer”.
- Open-ended questions to identify challenges, obstacles, and priority directions for the development of social inclusion in higher education institutions.
- Demographic data of respondents: gender, age, position/role, type of institution, form of ownership, location region, and number of students in the institution.

Preliminary data processing included recoding textual responses into numerical values. The aggregated inclusivity indicator (P_{inc}) was calculated from 34 closed-ended questions, with “yes” scored as one, “difficult to answer” as 0.5, and “no” as zero, yielding a maximum possible score of 34 points. The instrument’s dimensional structure was examined using an exploratory factor analysis. The sample was suitable for factorisation: the Kaiser–Meyer–Olkin measure reached 0.954, and Bartlett’s test of sphericity was significant ($\chi^2 = 12557.5$; $p < 0.001$). Parallel analysis pointed to three factors, which together accounted for 35.3% of the variance after promax rotation. The first factor brought together items on support, safety, and the organisation of the learning process (F1, 16 items); the second covered institutional policy, resources, and staff training (F2, 13 items); the third grouped formal access mechanisms such as quotas, grants, recognition of credits, and mobility (F3, 5 items). The pattern matrix was clean, with only three items showing secondary loadings above 0.32.

The composition of the three subscales is reported in Table 1, and their reliability is shown in Table 2.

Table 1*Composition of the Three Subscales Identified by the Exploratory Factor Analysis*

Subscale	Items (<i>k</i>)	Items and short descriptions
F1. Support, safety and learning process	16	Q1 – Individualised learning paths based on students' needs and experiences Q2 – Knowledge of inclusive education among leaders Q3 – Events on inclusive policy and anti-bullying Q4 – Events to support mental health Q5 – Student government involvement in inclusive policy events Q6 – Safety for students with special educational needs or diverse characteristics Q7 – Modules on diversity, inclusion, and equal opportunities Q8 – Student participation in diversity and inclusion-focused scientific events Q9 – Involvement of diverse students in educational, sports, and cultural activities Q10 – Use of flexible formats of learning (online, asynchronous, distance, etc.) Q11 – Recognising learning outcomes from exchange programs and non-formal learning Q12 – Diverse presentation of information by staff Q13 – Opportunities for students to demonstrate knowledge diversely Q14 – Use of assistive technologies for students with special educational needs Q15 – Provision of psychological assistance to students who need it Q16 – Involvement of students with special educational needs and diverse characteristics in scientific events
F2. Policy, resources and staff training	13	Q17 – Institutional policy on inclusion Q18 – Reporting on inclusion policy implementation Q19 – Investment in accessible educational environments Q20 – Accessible educational spaces Q21 – Resources (food, textbooks, etc.) for socially vulnerable students Q22 – Accessible program information (e.g., Braille, non-Ukrainian languages) Q23 – Inclusive, gender-sensitive language in materials and website Q24 – Adapted learning materials and assistive technologies for students with special educational needs Q25 – Training in inclusive education for academic staff Q26 – Training in multicultural teaching for academic staff Q27 – Training in student-centred teaching methods for academic staff Q28 – Staff self-assessment of inclusive teaching skills Q29 – Designated officer for inclusive education implementation

Subscale	Items (<i>k</i>)	Items and short descriptions
F3. Formal access mechanisms	5	Q30 – Quotas for government-funded places for socially vulnerable students Q31 – Grants, scholarships, and loans for socially vulnerable students Q32 – System for awarding ECTS credits for volunteer/civic activities Q33 – Blended mobility and internationalisation programs at home Q34 – Enrolment of students with special educational needs

Note. Items were assigned to the subscale with the highest loading in the promax-rotated solution.

Table 2

Factor Structure and Reliability of the Inclusivity Instrument

Subscale	Items	Var. %	Cronbach α	McDonald ω
F1. Support, safety and learning process	16	15.5	0.913	0.914
F2. Policy, resources and staff training	13	15.4	0.900	0.903
F3. Formal access mechanisms	5	4.4	0.611	0.617
Total P_{inc}	34	35.3	0.944	0.945

Note. Promax rotation, $n = 821$. KMO = 0.954; Bartlett's $\chi^2 = 12557.5$, $p < 0.001$. Inter-factor correlations ranged from 0.54 to 0.77

The three factors were strongly intercorrelated ($r = 0.54$ – 0.77), and the first unrotated factor explained 36.2% of the variance, with the ratio of the first to the second eigenvalue equal to 6.7. This indicates a pronounced general dimension underlying the responses, which justifies using the aggregated indicator P_{inc} as the principal measure. At the same time, the presence of three interpretable factors supports a complementary analysis at the subscale level. Internal consistency was high for the total scale (Cronbach's $\alpha = 0.944$; McDonald's $\omega = 0.945$) and for the first two subscales (F1: $\alpha = 0.913$, $\omega = 0.914$; F2: $\alpha = 0.900$, $\omega = 0.903$). The third subscale showed lower reliability ($\alpha = 0.611$), and its results are therefore interpreted with caution. Accordingly, group comparisons are reported for both the total indicator and the three subscales, allowing differences hidden within the aggregated score to be identified.

Procedure

The questionnaire was pilot-tested with a group of 20 respondents to ensure clarity, and minor revisions were made to improve wording and response options based on feedback. Respondents were recruited through a voluntary-response sampling strategy. Invitation letters containing a link to the online questionnaire were sent to the official e-mail addresses of higher education institutions listed in the database of the Ministry of Education and Science of Ukraine. The inclusion criteria required that respondents be currently enrolled as students or employed as academic staff or heads of structural units in a Ukrainian higher education institution; no quotas were set for demographic groups, institution types or regions. Because the link was widely disseminated across institutions, the total number of individuals who received the invitation is

unknown, and an exact response rate cannot be calculated. The resulting sample is self-selected and not statistically representative of the national higher education system: it over-represents the Kyiv and Dnipropetrovsk regions and, more generally, respondents with a prior interest in inclusion, and it cannot support population-level estimates. These features are treated as limitations in interpreting the results, and the analysis is framed in terms of differences within the sample rather than in terms of prevalence in the population.

Participants

The survey was conducted from May to July 2025 among academic staff, heads of structural units, and students from higher education institutions of various types and forms of ownership in Ukraine. The total number of respondents who participated in the survey was 821. The socio-demographic profile of the survey respondents indicates a predominance of women (68.8%), which reflects the dominance of women in education in Ukraine. Men constitute 30.1%, and another 1.1% abstained from answering. The age distribution is bimodal: youth under 21 years (38.2%) and persons aged 36–60 years (40.6%) are the main groups of respondents, while 22–35 years (13.9%) and over 60 years (7.3%) are represented to a lesser extent. By role, students dominate (48.2%), followed by academic staff (37%), with smaller shares for heads of structural units (8.0%) and postgraduate students (0.7%). Among higher education institutions, classical, or broad multidisciplinary (32.8%) and technical (23%) are the most prevalent, followed by pedagogical (10%), medical (9.6%), humanitarian (7.8%), and economic (6.9%). The majority of respondents represent state institutions (86%), while private and communal institutions are 7.9% and 6.1%, respectively. By institution size, the sample varies from small (up to 1000 students – 8.9%) to large (over 10,000 – 19.9%); however, 27.6% of respondents could not report this figure. Geographically, respondents are from higher education institutions in Kyiv (47.3%) and the Dnipropetrovsk region (24.8%), with representation from other regions being lower.

Due to the small representation of postgraduate students ($n=6$), respondents with missing or other role information ($n=49$), and respondents who did not specify their gender ($n=9$), these groups were excluded from the corresponding role-based and gender-based comparative analyses. As a result, the role-based comparisons cover 766 respondents in the three main groups (students, academic staff, and heads of structural units), and the multivariable model is based on the 757 respondents with complete information on role, age, and gender.

Ethical Considerations

All participants in the survey provided their voluntary consent to participate. They were informed of the study's purpose, the procedures involved, and their right to withdraw from participation at any time without consequences. Participants were assured that no personally identifiable information would be collected or disclosed, and all data would be handled confidentially. The survey results were analysed and reported in aggregated form to ensure anonymity and protect participants' privacy.

Analysis

Comparative analysis was used to examine group differences in the aggregated inclusivity indicator and its subscales. A Welch t -test was applied to compare women and men, while Welch one-way ANOVA was used to compare age groups and institutional roles because Levene's test

indicated unequal variances across groups. Games–Howell post hoc comparisons were conducted to identify pairwise group differences, as this procedure is appropriate for unequal variances and unequal group sizes. Effect sizes were reported using eta squared (η^2), Hedges' g , and Cohen's d . As a robustness check, a multiple linear regression model was estimated with the aggregated inclusivity indicator as the dependent variable and role, age, and gender as predictors, and Type II analysis of variance was used to assess the unique contribution of each predictor.

The three open-ended questions asked respondents to identify challenges to social inclusion and priorities for its development at the institutional and broader higher-education levels. The responses were analysed thematically using Braun and Clarke's (2006) framework. After empty, non-substantive, and clearly invalid entries had been removed, 849 valid responses were coded inductively into eight higher-order themes. Theme frequencies were then calculated as a share of valid responses within each role and age group.

Results

Inclusive Policies and Practices in Higher Education Institutions in Ukraine

The summarised survey results for the 34 inclusive policy and practice indicators are presented in Table 3.

Table 3*Implementation of Inclusive Policies and Practices in Higher Education Institutions*

Questionnaire item	Yes, %	No, %	Difficult to answer, %
Q1	66.6	8.5	24.8
Q2	56.9	6.0	37.1
Q3	63.8	11.7	24.5
Q4	73.2	12.1	14.7
Q5	58.6	7.7	33.7
Q6	64.4	8.4	27.2
Q7	54.3	12.1	33.6
Q8	59.8	7.1	33.1
Q9	65.8	5.0	29.2
Q10	88.7	3.0	8.3
Q11	62.0	3.4	34.6
Q12	65.9	6.9	27.2
Q13	82.6	4.0	13.4
Q14	67.1	6.8	26.1
Q15	69.9	8.2	21.9
Q16	63.2	4.4	32.4
Q17	62.7	3.7	33.6
Q18	38.7	7.2	54.1
Q19	46.5	8.4	45.1
Q20	55.9	10.6	33.5
Q21	41.4	13.2	45.4
Q22	32.2	20.3	47.5
Q23	50.3	14.7	35.0
Q24	41.3	14.6	44.1
Q25	35.0	13.0	52.0
Q26	37.0	12.9	50.1
Q27	48.6	10.0	41.4
Q28	38.5	14.5	47.0
Q29	33.3	11.8	54.9

Questionnaire item	Yes, %	No, %	Difficult to answer, %
Q30	79.0	2.3	18.6
Q31	68.6	4.5	26.9
Q32	46.5	12.3	41.2
Q33	56.8	5.6	37.6
Q34	49.6	4.5	45.9

Note. Q1-Q34 correspond to the policies and practices listed in Table 1.

The survey results indicate that the implementation of inclusive practices in higher education institutions is heterogeneous. On the one hand, certain achievements in specific areas suggest an awareness of the importance of inclusion. For example, high percentages of positive responses regarding the use of flexible learning formats and opportunities for students to demonstrate knowledge diversely indicate the adaptability of the educational process to students' needs. Additionally, the presence of institutional mechanisms, such as quotas for government-funded places for socially vulnerable students and psychological assistance, is positive. A relatively high share of positive responses regarding the existence of an inclusion policy suggests that many higher education institutions have formalised certain inclusive practices.

However, the study revealed significant gaps, particularly in transparency and resource provision. Negative responses ("no") and a high level of uncertainty (responses "difficult to answer") regarding the reporting, investment in accessible educational environments, and resource provision for socially vulnerable students point to systemic issues. This may indicate either the absence of such practices or a low level of awareness among respondents. The situation is particularly critical regarding information accessibility, where the share of positive responses is the lowest, as well as the availability of training in inclusive education and teaching in a multicultural environment. The absence of a designated officer for inclusive education implementation also hinders effective institutional policy implementation: one third of respondents reported such a position in their institutions.

Gender Differences in the Assessment of the Social Inclusion Priority

Women reported slightly higher total inclusivity scores than men, but the difference was not statistically significant (25.35 versus 24.78; Welch *t*-test, $p = 0.268$; Cohen's $d = 0.09$). This difference is small and likely reflects random variation rather than a gender effect. When the analysis was repeated at the subscale level, the total index and two of the three subscales again showed no gender difference. The single exception was the support, safety, and learning process subscale, where women scored slightly higher than men (12.95 versus 12.35; $p = 0.022$), although the effect was small (Cohen's $d = 0.19$). The gender difference, where it exists at all, is therefore confined to the perception of support and safety rather than to inclusion as a whole.

Because the overall gender difference was not statistically significant, the findings do not provide sufficient evidence to support gender-specific policy measures. The small advantage observed for women on the support and safety subscale may instead inform how awareness activities are framed, without assigning distinct roles to women or men in implementing inclusive practices.

Age Differences in the Assessment of the Social Inclusion Priority

Descriptive statistics for the aggregated inclusivity indicator by age group are reported in Appendix, Table A1. The youngest respondents had the lowest mean score (24.13), while the highest mean score was observed among respondents aged 60 or older (27.11). The intermediate age groups occupied a middle position, although the increase was not strictly linear: the mean score was 25.89 among respondents aged 22–35 and 25.45 among those aged 36–60. Overall, older respondents tended to assess inclusion more favourably than the youngest group, but this tendency was not uniform across all age groups or subscales. This may partly reflect the overlap between age and institutional role, as older respondents were more often academic staff or heads of structural units, while the youngest respondents were mostly students. Assessment variability was somewhat lower in the oldest group than in the younger ones.

To assess the statistical significance of differences in the mean values of the aggregated inclusivity indicator among the four age groups (under 21, 22–35, 36–60, over 60), a Welch one-way analysis of variance (ANOVA), robust to unequal variances, was applied (Table 4).

Table 4

Welch ANOVA Results: The Influence of Age on the Assessment of the Social Inclusion Priority

Subscale	Under 21 <i>M</i> (<i>SD</i>)	22–35 <i>M</i> (<i>SD</i>)	36–60 <i>M</i> (<i>SD</i>)	Over 60 <i>M</i> (<i>SD</i>)	Welch <i>F</i> ; <i>p</i>	η^2
Total inclusivity (0–34)	24.13 (6.31)	25.89 (6.58)	25.45 (6.28)	27.11 (5.78)	5.76; <0.001	0.020
F1. Support, safety, learning (0– 16)	11.85 (3.43)	13.06 (3.24)	13.31 (2.93)	13.59 (2.76)	13.05; <0.001	0.048
F2. Policy, resources, training (0–13)	8.27 (2.73)	8.89 (3.15)	8.45 (3.01)	9.66 (2.47)	5.67; <0.001	0.017
F3. Formal access (0–5)	4.00 (0.81)	3.94 (0.91)	3.69 (0.97)	3.86 (1.02)	6.84; <0.001	0.024

The Welch ANOVA revealed statistically significant differences in the aggregated inclusivity indicator across age groups (Welch $F = 5.76$, $p < 0.001$, $\eta^2 = 0.020$). The effect size indicates that age explains approximately 2% of the variance in assessments, suggesting a statistically significant but small age-related difference. Most of the variance is therefore likely associated with other factors, including institutional role, institution type, or the presence of students with special educational needs. Games–Howell post hoc comparisons identified which age groups differed from one another. For the total indicator, respondents under 21 scored significantly lower than those aged 36–60 (mean difference = 1.32 points; $p = 0.038$; Hedges' $g = 0.21$) and those aged over 60 (mean difference = 2.98 points; $p = 0.003$; Hedges' $g = 0.48$), while the remaining pairwise contrasts were not significant.

The age effect was strongest for the first subscale, support, safety, and the learning process. Respondents under 21 scored significantly lower than all older groups on this subscale ($\eta^2 =$

0.048; Hedges' g up to 0.52), indicating less favourable assessments of support and safety among the youngest respondents. For the second subscale, policy, resources, and staff training, respondents over 60 scored significantly higher than the under-21 and 36–60 groups, but not significantly higher than the 22–35 group. The third subscale, formal access mechanisms, showed a different result: respondents aged 36–60 reported the lowest values. Overall, assessments did not increase consistently with age across all aspects of inclusion.

Institutional policies should prioritise students and respondents under 21, who gave the lowest ratings for support, safety, and the learning process. Priority measures include clearer information on available support, better access to adapted materials and assistive technologies, and practical steps to strengthen students' sense of safety. Access-related barriers raised by respondents aged 22–35 in the open-ended responses should also be considered when updating institutional support practices.

Role Differences in the Assessment of the Social Inclusion Priority

Role differences were analysed for three main respondent groups: students, academic staff, and heads of structural units. Descriptive statistics for the aggregated inclusivity indicator by position/role are reported in Appendix, Table A2. The mean inclusivity indicator increases by professional status, from 24.43 for students to 25.39 for academic staff and 28.61 for heads of structural units. The median also rises from 25 to 29, indicating a greater concentration of high assessments among heads of structural units. Variability decreases across these groups: the range narrows from 31 points among students (3–34) to 18.5 points among heads of structural units (15.5–34), suggesting more uniform assessments and fewer very low scores in the latter group.

To assess the statistical significance of differences in the aggregated inclusivity indicator means across the three respondent groups (students, academic staff, heads of structural units), a Welch one-way analysis of variance (ANOVA), robust to unequal variances, was applied (Table 5). The Welch ANOVA showed statistically significant differences in the aggregated inclusivity indicator across institutional roles (Welch $F = 23.11$, $p < 0.001$, $\eta^2 = 0.034$). Role explained approximately 3.4% of the variance in assessments, indicating a statistically significant but small role-related difference, slightly larger than the age effect ($\eta^2 = 0.020$). Games–Howell post hoc comparisons showed that, for the total indicator, heads of structural units scored significantly higher than both students (mean difference = 4.18 points; $p < 0.001$; Hedges' $g = 0.68$) and academic staff (mean difference = 3.22 points; $p < 0.001$; Hedges' $g = 0.55$). The difference between students and academic staff was not significant (mean difference = 0.96 points; $p = 0.109$). The same result was found for the policy, resources and staff training subscale, where only heads of structural units differed significantly from the other two groups. For the support, safety, and learning process subscale, all three groups differed from one another, with assessments rising from students to academic staff and then to heads of structural units.

Table 5

Welch ANOVA Results: The Influence of Position/role on the Assessment of the Social Inclusion Priority

Subscale	Students <i>M</i> (SD)	Academic staff <i>M</i> (SD)	Heads <i>M</i> (SD)	Welch <i>F</i> ; <i>p</i>	η^2
Total inclusivity (0–34)	24.43 (6.42)	25.39 (6.10)	28.61 (4.25)	23.11; <0.001	0.034
F1. Support, safety, learning (0–16)	12.05 (3.45)	13.21 (2.83)	14.67 (1.66)	48.01; <0.001	0.064
F2. Policy, resources, training (0–13)	8.39 (2.83)	8.44 (2.97)	9.89 (2.55)	9.90; <0.001	0.021
F3. Formal access (0–5)	3.98 (0.81)	3.74 (0.92)	4.04 (0.87)	7.58; <0.001	0.021

These differences appear to reflect respondents' positions within the institution. Students assess inclusion mainly through direct access to materials, support and safety, whereas heads of structural units are more directly involved in designing and overseeing institutional policies. This helps explain why heads of structural units gave the highest and most uniform assessments. Since students and academic staff did not differ significantly on the total indicator, role differences should not be interpreted as a simple hierarchy across all groups.

For students, priority should be given to clearer information about available support, better access to adapted materials and assistive technologies, flexible learning arrangements, and measures that strengthen the sense of safety. Academic staff should receive regular training in inclusive education and be involved in practical inclusion initiatives. Heads of structural units should coordinate these measures, support academic staff in applying inclusive practices, and act as mentors in developing and monitoring institutional inclusion policies.

Robustness Check: Multivariable Model

Because age and institutional role are correlated in the academic community, a multiple linear regression was estimated to test whether each demographic characteristic predicts the aggregated inclusivity indicator, holding the others constant. The model included role, age, and gender as predictors and was estimated using data from 757 respondents with complete information on all three characteristics. The model was statistically significant but explained only a small share of the variance ($R^2 = 0.044$; $F(6, 750) = 5.72$; $p < 0.001$), consistent with the small effect sizes reported above. The unique contribution of each characteristic, assessed through Type II analysis of variance, is reported in Table 6.

Table 6

Unique Effects of Role, Age, and Gender on the Aggregated Inclusivity Indicator (Type II ANOVA, N = 757)

Predictor	<i>df</i>	<i>F</i>	<i>p</i>	Partial η^2
Role	2	6.86	0.001	0.018
Age	3	2.52	0.057	0.010
Gender	1	2.07	0.151	0.003

Note. Estimated from a multiple linear regression of the aggregated indicator on role, age, and gender. Partial η^2 is reported as a standardised measure of each predictor's unique contribution.

The multivariable model confirms the main findings and clarifies the relationship between age and role. Role remained a significant predictor after adjustment for age and gender, driven by the higher assessments of heads of structural units ($b = 2.78$; $p = 0.012$), whereas academic staff did not differ significantly from students ($p = 0.71$). Age, by contrast, became only marginally significant after controlling for role and gender ($p = 0.057$), with only the over-60 group remaining distinct ($b = 2.98$; $p = 0.015$). This indicates that part of the apparent age effect reflects the association between age and role, and that the more robust demographic divide is the one between heads of structural units and the rest of the academic community. Gender did not predict the overall indicator ($p = 0.151$). At the subscale level, role remained significant throughout, and gender was associated only with the support and safety subscale ($p = 0.011$), in line with the bivariate results.

Role and Age Differences in the Open-Ended Responses

The coded open-ended responses were compared by institutional role and age to clarify how the barriers and priorities identified by respondents relate to the group differences found in the closed-question analysis. Tables 7 and 8 pool valid responses across the three open-ended questions and show the share of responses within each group that referred to each theme. Gender differences are not reported separately because the closed-question analysis showed no meaningful overall gender difference; the open-ended responses are therefore used mainly to interpret the role- and age-related differences.

The open-ended responses differed by institutional role. Funding and resources were mentioned less often by students (11.8%) than by academic staff (21.5%) and heads of structural units (20.4%). This is consistent with the closed-question results, in which heads of structural units gave higher assessments of policy, resources, and staff training than the other two groups. Students more often referred to psychosocial support (6.8% versus 3.9% among academic staff), awareness and information (10.8% versus 7.4%), and adapted materials and digital accessibility (9.1% versus 5.0%). These themes correspond to the areas where students gave lower assessments in the closed questions, especially support, safety, and the learning process. Heads of structural units focused mainly on funding and infrastructure, which reflects their closer involvement in policy and resource decisions.

Table 7*Themes in the Open-Ended Responses by Institutional Role (% of the Group's Valid Responses)*

Theme	Students	Academic staff	Heads of structural units
Funding and resources	11.8	21.5	20.4
Physical infrastructure	14.5	10.5	10.2
Staff capacity	10.1	9.1	9.2
Awareness and information	10.8	7.4	6.1
Adapted materials and digital access	9.1	5.0	5.1
Psychosocial support	6.8	3.9	4.1
Legislation and policy	6.4	3.6	4.1
Institutional culture	3.0	4.1	3.1

Note. Valid responses by group: students 296, academic staff 363, heads of structural units 98 (total 757), pooled across the three questions. The group total is lower than the 849 valid responses overall because respondents with missing role information were excluded from this table. Percentages are calculated within group and do not sum to 100, since a response could be assigned to more than one theme.

Table 8*Themes in the Open-Ended Responses by Age Group (% of the Group's Valid Responses)*

Theme	Under 21	22–35	36–60	Over 60
Funding and resources	12.8	21.8	19.4	19.1
Physical infrastructure	17.1	21.8	10.2	3.2
Staff capacity	11.8	13.6	7.6	10.6
Awareness and information	14.2	16.4	6.1	2.1
Adapted materials and digital access	10.0	10.9	5.7	3.2
Psychosocial support	8.5	6.4	4.0	3.2
Legislation and policy	7.1	10.9	3.8	1.1
Institutional culture	3.3	7.3	2.8	3.2

Note. Valid responses by age group were: under 21 – 211; 22–35 – 110; 36–60 – 423; over 60 – 94 (total = 838), pooled across the three questions. The group total is lower than the 849 valid responses overall because respondents with missing age information were excluded from this analysis. Percentages are calculated within each age group and do not sum to 100, since a single response could be assigned to more than one theme.

Age differences were also visible in the open-ended responses. Respondents under 21 and those aged 22–35 more often mentioned physical infrastructure, awareness and information, adapted materials and digital accessibility, and psychosocial support than older respondents. For example, physical infrastructure was mentioned by 17.1% of respondents under 21 and 21.8% of those aged 22–35, compared with 3.2% of respondents over 60. Awareness and information were also mentioned more often in the two younger groups (14.2% and 16.4%) than among respondents aged 60 or older (2.1%). Funding and resources, by contrast, were more frequently mentioned by older respondents.

These results are consistent with the closed-question findings. The youngest respondents gave the lowest assessments of support, safety, and the learning process, and their open responses also focused more often on access to information, adapted materials and support. Older respondents placed greater emphasis on funding and resources, which may reflect their stronger connection with institutional planning and resource allocation.

Discussion

Overall Findings and Interpretation

The research results indicate the heterogeneous nature of the implementation of inclusive policies and practices in higher education institutions in Ukraine, consistent with the multidimensional view of social inclusion noted by researchers (Ainscow, 2020; Claeys-Kulik et al., 2019; Korthals Altes et al., 2024). Positive aspects, such as a high level of flexible learning and opportunities to demonstrate knowledge in different ways, indicate progress in adapting the educational process to students' needs. By contrast, low indicators regarding accessible information provision and training in inclusive education point to persistent gaps, which align with conclusions about insufficient academic staff preparation and limited infrastructure (Mapuya, 2025; Moriña, 2017; Níamante et al., 2021; Núñez Nogueroles & Freire, 2025; Yusof et al., 2020).

Gender differences in assessments of inclusion were not statistically significant for the total indicator, although women had slightly higher mean scores than men. This result differs from Crisol-Moya et al. (2023), who reported a significant association between gender and perceptions of inclusion, but is closer to Martin et al. (2023), who found no substantial gender differences among academic staff. The interpretation should also take into account the gender composition of the sample, where women represented 68.8% of respondents. Subscale analysis showed one limited difference: women scored significantly higher on support, safety, and the learning process. However, the effect was small, and no gender differences were found for the total indicator or for the policy, resources and staff training and formal access mechanisms subscales. Overall, gender did not appear to be a meaningful source of variation in the assessment of inclusion in this sample.

Age differences were statistically significant, but they should not be interpreted as a steady increase in assessments across all age groups. The youngest respondents had the lowest mean score, while the highest mean score was observed among respondents aged 60 or older. This partly corresponds to Crisol-Moya et al. (2023), who found that age was associated with perceptions of inclusive practices. At the subscale level, the clearest age difference concerned support, safety, and the learning process, where the youngest respondents gave the lowest assessments. For formal access mechanisms, the result was different: respondents aged 36–60 reported the lowest values. These findings indicate that age-related differences were limited and

varied across aspects of inclusion. They may also partly reflect the overlap between age and institutional role, as older respondents were more often academic staff or heads of structural units. The multivariable model supports this interpretation: the role remained significant after adjustment for age, while the effect of age weakened.

Role differences were also statistically significant, with the highest assessments among heads of structural units, compared with academic staff and students. This result is broadly consistent with Tsybuliak et al. (2024), who also reported higher assessments among managerial staff, although the differences in their study were not statistically significant. Higher assessments among heads of structural units may be related to their involvement in policy formation and access to institutional information. Students, by contrast, assess inclusion mainly through their direct experience of learning conditions, support, safety, and access to materials. The main role-related difference was therefore between heads of structural units and the other two groups, rather than between students and academic staff. For support, safety, and the learning process, however, assessments increased across all three roles, making role differences more visible than in the overall assessment of inclusion.

The open-ended responses are consistent with this interpretation. Students and younger respondents, who gave the lowest assessments of support, safety, and the learning process, more often mentioned psychosocial support, awareness and information, and access to adapted materials. Academic staff and heads of structural units more often referred to funding and resources, which is consistent with their closer involvement in institutional planning and policy implementation. Taken together, the closed- and open-ended responses indicate that perceptions of inclusion vary across the characteristics examined, especially institutional role, and reflect respondents' direct experience with inclusive practices.

The findings provide the basis for evaluating the four hypotheses. H1 was partially supported: heads of structural units assessed inclusion more favourably than both students and academic staff, while students and academic staff did not differ significantly on the total indicator. H2 was partially supported: age differences were statistically significant, but they were inconsistent across age groups and subscales. H3 was largely supported: no significant gender difference was found for the total indicator, although women scored slightly higher on the support, safety, and learning process subscale. H4 was supported, as demographic differences varied across the instrument's three subscales.

Theoretical Implications

The results are consistent with international studies that emphasise the need to combine physical accessibility with psychological, social and academic support (Ainscow, 2020; Claeys-Kulik et al., 2019; Korthals Altes et al., 2024). In the Ukrainian context, the findings also align with those of Hurenko et al. (2023) and Nesterova and Orzhel (2023), who note that the war has intensified the challenges of social inclusion in higher education, particularly through displacement, trauma-related needs, and the need to restore educational communities. The findings are also consistent with Tsybuliak et al. (2024), who reported generally positive assessments of inclusion in Ukrainian universities even among respondents with vulnerable-group identification. In this broader context, the relatively positive assessments of flexible learning and psychological support in the present study may indicate a certain institutional capacity to sustain inclusive practices during wartime. At

the same time, this capacity remains uneven, as gaps persist in information accessibility, staff training and institutional coordination.

The study adds to the understanding of social inclusion in higher education by showing that, among the characteristics examined, institutional role is especially important for how inclusion is perceived. Heads of structural units may evaluate inclusion through their knowledge of formal policies, coordination procedures and available institutional mechanisms. Students and younger respondents, by contrast, are more likely to assess inclusion through direct experience of support, safety, access to information and adapted materials. This difference is important because it shows that formal inclusion policies may be perceived as stronger by those involved in their implementation than by those who rely on them in everyday educational practice.

Practical Implications

The results have practical significance for Ukrainian higher education institutions. Since heads of structural units, academic staff and students view inclusion from different institutional positions, universities need regular channels for student and staff feedback when developing and revising inclusion policies. This is particularly important because students and younger respondents reported more concerns about support, safety, information and adapted materials.

Universities should provide clearer information about available support, accessibility measures and assistance procedures. They should also improve access to adapted learning materials, assistive technologies and flexible learning arrangements. These measures are relevant not only for students with special educational needs but also for students whose learning conditions may be affected by displacement, trauma, mobility constraints or wartime disruption. These results caution against treating formal access mechanisms as sufficient on their own.

The results also support the need for regular professional development in inclusive education for academic staff. Such training should focus on adapted learning materials, student-centred teaching, communication with diverse student groups and practical responses to individual educational needs. Institutional coordination also needs to be strengthened through inclusion officers, inclusion offices or clearly assigned responsible units.

Research Limitations

The study has several limitations. The sample is not statistically representative of the Ukrainian higher education system. Respondents were concentrated in Kyiv (47.3%) and the Dnipropetrovsk region (24.8%), while other regions, including those more directly affected by the war, were less represented. This limits the generalisability of the findings and underscores the need for further data collection in underrepresented and war-affected regions. Women predominated in the sample (68.8%), reflecting the gender structure of the education sector but potentially limiting the assessment of gender differences. The study also relies on respondents' perceptions of inclusive policies and practices, which may be affected by awareness, access to institutional information and socially desirable responses. The data do not allow separate analysis of vulnerable groups, such as veterans, internally displaced persons or persons with disabilities. The factor analysis supported a strong general dimension alongside three distinct subscales. However, the formal access mechanisms subscale showed lower internal consistency ($\alpha = 0.611$), and findings related to this subscale should therefore be interpreted with caution. Wartime conditions are treated as context rather than as a measured variable, as the questionnaire did not

include direct indicators of conflict-related experience, such as displacement, proximity to hostilities or service-related status. Therefore, the study cannot isolate the specific effect of war-related experience on perceptions of inclusion. These limitations should be considered when interpreting the findings and indicate the need for further research with broader samples and more detailed measures of wartime experience and vulnerable-group status.

Conclusion

The study shows that social inclusion in Ukrainian higher education is uneven across institutional policies, support mechanisms and access conditions. Flexible learning formats and diverse approaches to knowledge assessment are among the more developed practices, while information accessibility, infrastructure, staff training and institutional coordination remain weaker areas. Demographic differences were found, but their interpretation requires caution. Role and age were associated with statistically significant differences in assessments, whereas gender differences were not significant for the total indicator. Heads of structural units assessed inclusion more favourably than students and academic staff, while students and younger respondents gave lower assessments of support, safety, and the learning process. At the same time, the effects were relatively small, and the multivariable analysis showed that institutional role was a more stable predictor of the aggregated inclusivity indicator than age.

The findings indicate that inclusion policy should combine formal institutional measures with support that reflects the different positions of students, academic staff and heads of structural units. For students, priority should be given to clearer information about available support, better access to adapted materials and assistive technologies, flexible learning arrangements and measures that strengthen the sense of safety. Academic staff should receive regular training in inclusive education and be involved in practical inclusion initiatives. Heads of structural units should coordinate these measures, support academic staff in applying inclusive practices and contribute to the development and monitoring of institutional inclusion policies.

Further research should address these limitations by broadening the geographical coverage of the sample, including respondents from underrepresented regions and, where feasible, from frontline and formerly occupied territories after their liberation. Qualitative studies involving internally displaced persons, veterans and persons with disabilities would help identify group-specific barriers and support needs. Future research should also examine how wartime conditions shape inclusive practices, particularly in relation to psychological support, infrastructure adaptation and assistance for people with trauma-related experiences. Comparative studies with European and other international contexts could help assess which practices are most relevant for Ukrainian higher education. These directions would provide a stronger basis for understanding demographic differences in perceptions of inclusion and for improving institutional inclusion policies.

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Appendix

Table A1

Comparative Statistical Analysis of the Aggregated Inclusivity Indicator by Age

Indicator	Under 21 (n=314)	22–35 years (n=114)	36–60 years (n=333)	Over 60 (n=60)	Trend of Differences
Mean	24.13	25.89	25.45	27.11	Increases with age, with the highest mean assessments in the 60+ group
Median	24	27.5	26.5	29	Gradually increases with age, with higher concentrations of high assessments in older groups
Mode	34	34	29	32	In younger groups, the mode corresponds to the maximum score (34), while in older groups, it is slightly lower (29–32)
Standard Deviation	6.31	6.58	6.28	5.78	Highest in the 22–35 group, lowest in the 60+ group
Sample Variance	39.75	43.32	39.46	33.43	Similar trend to SD: older respondents provide more uniform assessments
Kurtosis	-0.46	0.55	0.99	1.33	Gradual transition from negative values (flatter distribution in younger groups) to positive values (more peaked distribution in older groups)
Skewness	-0.32	-0.93	-1.03	-1.20	Negative skewness increases with age
Range	4.5–34 (29.5)	3–34 (31)	3–34 (31)	8.5–34 (25.5)	Narrows in older groups due to an increase in the minimum value, while the maximum remains constant
Minimum	4.5	3	3	8.5	Increases with age, with no very low assessments in older groups
Maximum	34	34	34	34	Consistent across all age groups

Table A2

Comparative Statistical Analysis of the Aggregated Inclusivity Indicator by Position/role

Indicator	Students (n=396)	Academic Staff (n=304)	Heads of Structural Units (n=66)	Trend of Differences
Mean	24.43	25.39	28.61	Increases with professional status, indicating a more positive perception of inclusivity among heads of structural units
Median	25	26.5	29	Increases with status, with a greater concentration of high assessments among heads of structural units

Indicator	Students (<i>n</i> =396)	Academic Staff (<i>n</i> =304)	Heads of Structural Units (<i>n</i> =66)	Trend of Differences
Mode	34	26.5	29	For students, the mode corresponds to the maximum (34), while for academic staff and heads of structural units, it is closer to average values
Standard Deviation	6.42	6.10	4.25	Decreases with status, lowest among heads of structural units, indicating greater uniformity of assessments
Sample Variance	41.20	37.24	18.08	Similar trend: heads of structural units provide more uniform assessments, confirming reduced variability with higher status
Kurtosis	-0.25	0.45	0.68	Transition from flat distribution (students) to peaked distribution (heads of structural units), with greater concentration around the mean for heads of structural units
Skewness	-0.46	-0.82	-1.05	Negative skewness increases with status, with higher assessments among heads of structural units
Range	3–34 (31)	4.5–34 (29.5)	15.5–34 (18.5)	Narrows with status due to an increase in the minimum value for heads of structural units
Minimum	3	4.5	15.5	Increases with status, with no low assessments among heads of structural units
Maximum	34	34	34	Consistent across all groups (34), indicating the presence of respondents with maximum assessments regardless of position/role