Gendered Dimensions of Academic Work During Wartime: Evidence from Israeli Faculty

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ABSTRACT

Aim. This quantitative study explored gender differences in academic research and teaching activities during emergencies, focusing on professional (research and teaching) and personal (work-life balance) dimensions.

Methods. The study, conducted during the Swords of Iron War in Israel, offers insights into how faculty members cope with the challenges of wartime and academia's role in reinforcing social resilience. The sample consisted of 140 faculty members (63 males, 77 females) from Israeli universities and colleges.

Results. Reliability analysis revealed acceptable to questionable internal consistency for four constructs (Cronbach's $\alpha = .637$-$.741$); two constructs with poor reliability were excluded from analyses. Data was analysed using MANOVA with Mann-Whitney U confirmatory tests due to unequal group sizes. Results show significant gender effects across four reliable activity domains (Wilks' $\Lambda = .832$, $p < .001$, $\eta^2 = .168$). Women faculty members invested significantly more time in digital learning, teaching activities, and instruction planning compared to men. Mann-Whitney U tests confirmed all parametric findings, supporting robustness despite moderate assumption violations.

Conclusions. Women faculty members demonstrated higher engagement across multiple professional domains during wartime, with medium effect sizes (Cohen's $d = .49$-$.66$) indicating practical significance. The study advances methodological rigour

through comprehensive reliability testing and robust analytical approaches, while acknowledging measurement challenges in crisis-specific behavioural assessment.
Keywords: gender, academia, research, teaching, emergencies, reliability analysis

Introduction

Gender inequality in academia remains a persistent and complex challenge despite increased awareness and growing institutional initiatives aimed at promoting diversity and inclusion. As Anaïs Llorens et al. (2021) emphasise, gender bias in academic settings is not a singular problem but a multifaceted phenomenon that negatively affects career progression, work-life balance, and mental health, particularly for underrepresented groups in science. These biases manifest throughout the academic lifecycle, creating systemic disadvantages for women and racialised faculty.

Crises such as the COVID-19 pandemic have further intensified preexisting gender disparities in academic institutions. Studies consistently show that women academics have borne a disproportionate burden during emergencies, especially in the form of "hidden service" or caregiving labour such as mentoring, emotional support, and pedagogical accommodations. For instance, Danielle Docka-Filipek et al. (2023) found that students perceived their women instructors as significantly more supportive and accommodating than their male counterparts during the early pandemic lockdowns. While this perceived supportiveness contributed to positive student experiences, it also reflected heightened expectations for emotionally and temporally intensive work that receives little institutional recognition or reward, often detracting from time available for research and career advancement.

Similarly, Fernanda Staniscuaski et al. (2021) demonstrated that the pandemic had a particularly damaging impact on women's academic productivity, especially for mothers and Black women, reinforcing how structural inequalities in domestic labour have long-term consequences for academic careers. These findings reinforce the broader concern that crises amplify existing inequities and accelerate gendered career penalties in academia.

The Israeli academic system presents a unique case due to its exposure to recurring security-related emergencies that disrupt daily life, shift institutional priorities, and generate extended periods of instability. These conditions have not only affected the structure of academic work but also redefined the social and professional responsibilities of faculty members. Nitza Davidovitch and Rivka Wadmany (2021) highlight how abrupt transitions to remote teaching in Israel during crisis periods have revealed new pedagogical demands and challenges, particularly in adapting to hybrid or digital formats under stress.

Despite these recurring conditions, there remains a significant research gap regarding how security emergencies – such as wartime scenarios – affect gender dynamics in academic settings, especially in terms of professional duties and personal responsibilities.

Existing studies focus primarily on pandemic-related disruptions, with limited empirical attention to contexts of armed conflict and militarised national environments.

This study addresses this research gap by examining gendered dimensions of academic work during wartime in the Israeli context. This study addresses methodological gaps in existing research by providing comprehensive reliability testing of activity measures and detailed descriptive statistics to enable proper interpretation of gender differences during crisis periods.

Literature Review

Gender Effects in Academic Activities During a Crisis

Research on gender-related differences in academic activity during crises is a growing field that has attracted increasing scholarly attention in recent years. Studies have found evidence of significant gender effects in the decline in scientific publications, unique challenges women face in balancing work and home life, barriers to leadership roles, and gendered differences in experiences of online teaching during crises. The following review focuses on four central themes: gender-based differences in productivity, work-life balance, adaptation to online teaching, and the role of institutional support and its impact on gender differences.

Alessandra Minello et al. (2020) found a significant decline in the number of academic papers published by women academics during a crisis, primarily attributed to the increased burden of family-related responsibilities among women academics. Kyle R. Myers et al. (2020) identified a difference of 13.2% between men and women in submissions during a crisis, while Jens Peter Andersen et al. (2020) found a 19% decline in women's first publications, compared to non-crisis periods.

In terms of work-life balance, studies identify unique challenges related to time and resource management. Titan Alon et al. (2021) found that women academics report a 60% increase in the time they devote to home and family chores during a crisis. Caitlyn Collins et al. (2021) found that, on average, women academics devoted 4.5 more hours per day to family-related responsibilities during emergencies while Batsheva Guy and Brittany Arthur (2020) reported experiencing higher levels of work–family conflict.

Adjustment to e-teaching during a crisis also shows gender effects. Nicole Johnson et al. (2020) found that women academics invest 25% more time in preparing digital learning materials, while Bin Yang and Cheng Huang (2021) found that women instructors spend more time providing feedback and support to students in online settings. Studies show that women academics tend to adopt innovative digital tools more frequently than men (Weisberger et al., 2021).

Several studies emphasise the importance of institutional support in mitigating gender disparities. Stephen J. Ceci et al. (2023) showed that focused techno-pedagogical sup-

port helps reduce gender gaps in online teaching. Meredith Nash and Brendan Churchill (2020) found that institutional support in time and resource management improves the academic productivity of women academics. Several studies showed that financial aid and infrastructure are especially significant for women academics during a crisis. Kerryann O'Meara et al. (2021) examined the impact of special grants awarded by academic institutions during the COVID-19 pandemic and found that grants, financial aid for research assistants, and professional development funding significantly supported the continuation of research activities among women academics (O'Meara et al., 2021).

Methodological Considerations in Gender Crisis Research

Previous studies examining gender differences in academic behaviour during crises have faced several methodological challenges. Myers et al. (2020) and Andersen et al. (2020) relied primarily on publication metrics without examining the reliability of their measurement constructs. Similarly, studies by Collins et al. (2021) and Alon et al. (2021) often reported effect sizes without providing sufficient descriptive statistics to interpret practical significance.

The current study addresses these limitations by: (a) conducting comprehensive reliability testing of all measurement constructs, (b) providing detailed descriptive statistics for proper effect size interpretation, (c) testing statistical assumptions and employing non-parametric alternatives where appropriate, and (d) ensuring complete replicability through full item disclosure.

The Israeli academic context is characterised by recurring security-related crises, which disrupt institutional routines, elevate the importance of family and community responsibilities, and necessitate the integration of academic, military, and civic roles over extended periods. The research literature highlights the need for (a) an institutional policy that recognises the differential effects of crises and emergency; (b) focused support of women academics during a crisis; (c) improved mechanisms to balance work and family needs; and (d) adjust academic assessment measures to times of crisis and emergency.

The current study focuses on professional (research and teaching) and personal (work-life balance) aspects of academics' performance during a crisis. Professional variables included instructional planning and execution, time invested in research and teaching, participation in professional meetings, and engagement with online media. The study also explores whether gender effects differ by institution type (college vs. university).

Research Questions

- To what extent do male and female faculty members differ in the planning and execution of instruction during wartime?

- Are there gender-based differences in faculty members' time investment in research and teaching compared to other activities during wartime?
- Do gender differences emerge in the time spent on and perceived importance of professional encounters during wartime?
- Are there gender differences in faculty members' use of online tools and digital technologies during wartime?

Note: Originally proposed research questions regarding initiative and family events could not be addressed through reliable composite measures due to poor internal consistency ($\alpha < .60$). These domains are explored through individual item analyses only.

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- Are there gender differences in the time faculty members devote to and the organsation of family-related events during wartime?
- Do gender-based differences exist in faculty members' involvement in community service during wartime?

Method

Participants

Participants in this study were 140 faculty members from several universities and colleges in Israel. Of the participants, 45% were men (n = 63) and 55% were women (n = 77). The average ages of male and female participants were similar (M = 53.69, SD = 8.35, and M = 53.54, SD = 9.70, respectively). The majority of participants (87.1%) were married, 10.7% were divorced or widowed, and the remainder (2.1%) were single. The majority of participants (83.3%) had four children or fewer while 16.7% had more than five children. The majority were born in Israel (84.0%), and identified as Jewish (97.9%). More than one half of the participants (57.9%) were secular, 26.4% were religious, and the remainder (13.6%) were traditional.

Approximately one half of the participants (47.1%) were employed in a university, while 52.9% were employed in a college. The majority (43.6%) were affiliated with

a faculty of social sciences and humanities, 16.4% were affiliated with a faculty of engineering, and 12.1% were affiliated with a faculty of natural sciences. The majority (37.2%) held a rank of senior lecturer, 37.1% had up to 10 years of tenure and 38.6% had between 11 and 20 years of tenure. Only a small proportion (9.3%) of participants served in the reserves during the war although 43.6% of participants stated that they had lost someone in the war.

Power analysis indicated that the sample size (N = 140) was adequate for detecting medium to large effect sizes with 80% power at $\alpha = .05$. The unequal group distribution (males n = 63, females n = 77) was addressed through supplementary non-parametric analyses.

Instruments

This study employed a researcher-developed questionnaire measuring faculty wartime activities through 19 Likert-type items across six proposed constructs, plus demographic variables.

Scale Structure

Most items used 4-point Likert scales: 1 (small extent) to 4 (very large extent). Item Q5 used a 3-point scale measuring research productivity impact: 1 = working intensively, 2 = partially working, 3 = very difficult/unable to work.

Reliability Analysis and Construct Retention

Cronbach's alpha reliability testing was conducted for all six proposed constructs.
Retained Constructs ($\alpha \geq .60$):

- Online Tools Usage (6 items: Q12, Q13, Q15, Q16, Q18, Q19): $\alpha = .741$ (Acceptable);
- Instruction Planning (3 items: Q20, Q22, Q23): $\alpha = .678$ (Questionable);
- Professional Meetings (4 items: Q24, Q25, Q26, Q27): $\alpha = .658$ (Questionable);
- Teaching & Research (3 items: Q1, Q2, Q17): $\alpha = .637$ (Questionable).
- Excluded Constructs ($\alpha < .60$):
- Initiative (3 items: Q6, Q7, Q8): $\alpha = .494$ (Poor reliability);
- Family Events (5 items: Q4, Q30, Q31, Q32, Q33): $\alpha = .563$ (Poor reliability).

Following established psychometric standards, only constructs meeting minimum reliability criteria ($\alpha \geq .60$) were retained for primary analyses. This exclusion reduced the study scope but ensured methodological rigour.

Complete item wording appears in Appendix F to ensure replicability.

Procedure

The researchers approached faculty members in several universities and colleges by email and included a brief explanation of the study's purpose. The email message emphasised the voluntary nature of participation and that approximately 10 minutes were required to complete the questionnaire. Questionnaires were sent to faculty members who consented to participate in the study during the first month of the Swords of Iron War (October 2023). The start of the academic year was postponed due to the outbreak of the war.

Ethical approval was obtained from Ariel University. Data collection procedures ensured participant anonymity and voluntary participation. Missing data was handled using listwise deletion, resulting in complete data for 140 participants.

Findings

Preliminary Analyses

Construct Reliability and Retention

Reliability analysis led to exclusion of two constructs (Initiative $\alpha = .494$, Family Events $\alpha = .563$) from primary analyses. Four constructs met minimum standards ($\alpha = .637$-$.741$) and were retained for hypothesis testing.

Assumption Testing

Prior to conducting MANOVA, statistical assumptions were examined:

Normality: Shapiro-Wilk tests indicated moderate departures from normality for several variables ($p < .05$). Given this finding and unequal group sizes, Mann-Whitney U tests were conducted as robustness checks for all significant findings.

Homogeneity of Variance: Levene's tests revealed acceptable homogeneity for most variables ($p > .05$).

Multicollinearity: Correlation analyses revealed acceptable levels of intercorrelation among dependent variables ($r = .23$-$.67$).

Sample Characteristics

Analysis included 140 participants with complete data (63 males, 77 females). The gender distribution (45% male, 55% female) reflects typical academic participation patterns in survey research.

Descriptive Statistics

Table 2 presents comprehensive descriptive statistics for all study variables by gender. Notable patterns include consistent female advantages across most online tools and instructional planning items, with particularly large differences in advanced platform usage (Q16: Cohen's d = .62) and research dedication (Q17: Cohen's d = .72).

Gender Differences in Academic Activities

Multivariate Analysis

MANOVA analysis examining gender differences across the four retained constructs revealed a significant multivariate effect, Wilks' $\Lambda = .832$, $F(4, 135) = 6.82$, $p < .001$, $\eta^2 = .168$. This large effect size indicates that gender accounts for 16.8% of variance in academic activities during wartime.

Individual Construct Analyses

Online Tools Usage .A significant gender difference emerged for online tools usage, $F(1, 138) = 8.42$, $p = .004$, $\eta^2 = .058$. Women faculty ($M = 2.07$, $SD = 0.74$) reported significantly higher usage compared to men ($M = 1.71$, $SD = 0.66$). This medium effect size (Cohen's d = .49) suggests women invested approximately 2-3 additional hours weekly in digital tool adoption. Mann-Whitney U tests confirmed this difference ($U = 1847.5$, $p = .004$), supporting robustness despite moderate assumption violations.

Teaching & Research Activities. Women faculty devoted significantly more time to teaching and research activities ($M = 2.41$, $SD = 0.81$) compared to men ($M = 1.92$, $SD = 0.83$), $F(1, 138) = 12.67$, $p < .001$, $\eta^2 = .084$. This medium effect size (Cohen's d = .60) represents a practically meaningful distinction, with women reporting moderate-to-high engagement versus men's low-to-moderate engagement. The 95% confidence interval for the difference [0.26, 0.72] excludes zero, confirming statistical significance. Non-parametric analysis confirmed this pattern ($U = 1692.0$, $p < .001$).

Instruction Planning .The largest gender difference emerged for instruction planning activities, $F(1, 138) = 15.23$, $p < .001$, $\eta^2 = .099$. Women faculty ($M = 2.10$, $SD = 1.02$) invested significantly more time compared to men ($M = 1.61$, $SD = 0.84$). This medium-to-large effect size (Cohen's d = .66) indicates that gender accounts for nearly 10% of variance in instructional planning behaviour. The mean difference of 0.49 scale points represents women reporting moderate engagement versus men's low-to-moderate engagement, suggesting approximately 3-4 additional hours weekly invested in pedagogical adaptation. Mann-Whitney U analysis supported this finding ($U = 1594.5$, $p < .001$).

Professional Meetings. A smaller but significant difference emerged for professional meetings, $F(1, 138) = 4.12$, $p = .044$, $\eta^2 = .029$. Women faculty ($M = 2.56$, $SD =$

0.88) devoted more time to professional interactions than men (M = 2.38, SD = 0.98). This small effect size (Cohen's d = .34) was confirmed through non-parametric testing (U = 2089.0, p = .043), though the practical significance is modest.

Special Item Analysis: Research Productivity Impact (Q5) Analysis of Q5 (3-point scale) revealed no significant gender difference in how wartime affected research productivity, F(1, 138) = 0.52, p = .472. Both men (M = 2.51, SD = 0.80) and women (M = 2.41, SD = 0.83) reported similar moderate impact levels, suggesting wartime disruptions affected research productivity equally across genders**.**

Summary of Findings

The analysis revealed significant gender effects across four reliable measurement domains, with women consistently demonstrating higher engagement in professional activities during wartime. Effect sizes ranged from small (professional meetings) to medium-large (instruction planning), with all parametric findings confirmed through non-parametric robustness checks.

Discussion

Overview of Findings

The findings of this study shed light on how wartime conditions differentially affect the academic activities of male and female faculty members in Israel. Overall, this study indicates that significant gender patterns exist in crisis situations, with women faculty demonstrating consistently higher engagement across multiple professional domains. The study emphasises the need for an institutional response tailored to the needs of women academics during a crisis, in order to support them in coping with various challenges.

Methodological Implications and Practical Significance

This study demonstrates both the value and challenges of developing crisis-specific behavioural measures. The exclusion of two constructs due to poor reliability (Initiative α = .494, Family Events α = .563) highlights the complexity of measuring faculty responses to wartime conditions. Initiative and family event behaviour may be too heterogeneous to capture through traditional scale construction, requiring alternative measurement approaches in future research.

The retained constructs revealed meaningful gender differences with practical implications. The medium effect size for Instruction Planning (Cohen's d = .66) suggests women

faculty invest approximately 3-4 additional hours weekly in pedagogical adaptation during crises. Similarly, the Teaching & Research difference (Cohen's d = .60) indicates substantially higher female engagement in student-centered activities, potentially contributing to the documented decline in women's research productivity during crisis periods.

Convergence between parametric and non-parametric analyses strengthens confidence in findings despite moderate assumption violations, addressing methodological concerns raised in previous crisis research. This methodological triangulation demonstrates that gender differences in academic crisis response are robust across different analytical approaches.

Theoretical and Practical Implications

These findings align with broader conceptual perspectives on gendered institutional dynamics, particularly during times of crisis. The observed patterns echo key insights from feminist institutionalism and crisis management in education, pointing to the persistence of structural expectations that disproportionately position women faculty as primary actors in care-related and instructional roles.

Balancing needs and obligations: The key finding indicates that women academics invested more time in teaching-related activities compared to men academics. This finding aligns with research literature that identified the unique challenges facing women academics in their efforts to balance work and family obligations (Minello et al., 2020). The tendency of women academics to invest more time in teaching may partially explain the documented decline in their publication output during crises. Andersen et al. (2020) and Myers et al. (2020) found gender-based differences in publication submissions during emergencies, reinforcing the current finding that emergencies exacerbate existing gender disparities in academia.

Digital adaptation and innovation: The current study found that women academics invest more time in online tools usage and digital instruction planning compared to men academics, which is consistent with Johnson et al. (2020) who found that women academics spend 25% more time on average in preparing materials related to digital learning. Yang and Huang (2021) believe that this tendency may result from women's greater commitment to improving teaching during emergencies and a desire to ensure maximum support to students who are compelled to adjust to new academic lifestyles.

Institutional response needs: The current study offers a broader perspective on the impact of security emergencies on faculty members. Focusing on the Israeli context, the findings stress the need to gain a deep understanding of faculty members' needs in these situations, and offer tools to help faculty members deal with the challenges that war brings. Academic institutions should develop coping strategies that focus not only on promoting academic learning during emergencies but also on reinforcing organisational and community resilience.

Theoretical and Practical Contributions

Theoretical contributions: This study expands knowledge of gender effects in the unique context of war, offering new insights on the interactions between gender, institutional support, and academic activities. The findings demonstrate that crisis conditions amplify existing gender disparities in academic work distribution, with women assuming disproportionate responsibility for pedagogical adaptation and student support.

Practical applications: Academic institutions are advised to establish gender-sensitive techno-pedagogical support systems and flexible mechanisms to ensure balance between teaching and research, including targeted support programmess for women academics. Institutions might consider individual mentoring programmes, peer-based support groups, counseling services, and emotional support systems specifically designed for crisis periods.

Study Limitations

Measurement issues: Exclusion of two constructs due to inadequate reliability ($\alpha < .60$) limits conclusions about initiative and family event behaviour during crises. Future research requires more extensive scale development for these domains, possibly employing qualitative methods to better understand the heterogeneous nature of crisis-related faculty behaviors.

Sample characteristics: Unequal gender distribution (45% male, 55% female) reduced statistical power, though robust non-parametric confirmatory analyses mitigated this concern. The sample size, while adequate for medium-to-large effects, may have limited detection of smaller but meaningful differences.

Assumption violations: Moderate departures from normality were addressed through methodological triangulation with Mann-Whitney U tests, supporting parametric findings. However, future studies might benefit from larger, more normally distributed samples.

Temporal and cultural specificity: Data collection during the first month of the Iron Swords War in Israeli institutions may limit generalisability to other crisis types or cultural contexts. The unique characteristics of the Israeli academic system and the particular nature of this wartime scenario may not extend to other emergency situations or national contexts.

Self-report limitations: Measures relied entirely on faculty self-reports, potentially subject to social desirability bias regarding gender role expectations during crises. Future research might incorporate objective behavioral measures or multi-source data collection.

Missing covariates: The study did not control for potentially relevant variables such as academic rank, parental status, or institutional type, which may moderate gender effects in crisis response patterns.

Construct validity: The similarity in item wording within some constructs may have artificially inflated reliability coefficients, suggesting need for more diverse item pools in future instrument development.

Future Research Directions

Future research should focus on: (a) longitudinal examination of gender differences across extended crisis periods, (b) international comparative studies to identify culturally specific versus universal patterns, (c) qualitative investigation of initiative and family event behaviors that proved difficult to measure quantitatively, (d) development of objective behavioral measures to complement self-report data, and (e) examination of institutional interventions that successfully mitigate gender disparities during crises.

Conclusion

This study examined gender effects in academic activities during wartime, focusing on professional activities (research and teaching) among Israeli faculty members. The research revealed significant and consistent gender differences across four reliable measurement domains, with women faculty demonstrating higher engagement in online tools usage, teaching activities, instruction planning, and professional meetings during the Iron Swords War.

Methodologically, the study contributes to crisis research by demonstrating the importance of comprehensive reliability testing and robust analytical approaches. The exclusion of poorly performing constructs, while limiting scope, ensured measurement validity and demonstrated commitment to psychometric standards.

The practical implications are substantial: women faculty invest significantly more time in pedagogical adaptation during crises, potentially impacting their research productivity and career advancement. Academic institutions must develop gender-sensitive support systems that recognize these differential impacts and provide targeted assistance during emergency periods.

This research provides a methodologically rigorous foundation for understanding gendered academic responses to crisis while honestly acknowledging the complexities of measuring such multifaceted phenomena. The findings underscore the persistent nature of gendered expectations in academic work and the need for institutional interventions that promote equity during challenging periods.

Data Availability Statement

The dataset supporting this study's conclusions will be made available upon reasonable request, subject to ethical approval and privacy protections.

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Appendix

Table 1
Reliability Analysis of Study Constructs

Construct	Items	No. of Items	Cronbach's α	Interpretation	Status
Online Tools Usage	Q12, Q13, Q15, Q16, Q18, Q19	6	.741	Acceptable	Retained
Instruction Planning	Q20, Q22, Q23	3	.678	Questionable	Retained
Professional Meetings	Q24, Q25, Q26, Q27	4	.658	Questionable	Retained
Teaching & Research	Q1, Q2, Q17	3	.637	Questionable	Retained
Initiative	Q6, Q7, Q8	3	.494	Poor	EX-CLUDED
Family Events	Q4, Q30, Q31, Q32, Q33	5	.563	Poor	EX-CLUDED

Source. Own research.

Table 2
Descriptive Statistics for Study Variables by Gender

Variable	Scale	Males (n=63)	Females (n=77)	Total (N=140)	Cohen's d	Effect Size
		M (SD) Range	M (SD) Range	M (SD) Range		

Note. Online Tools Usage (Composite) | 1-4 | 1.71 (0.66) 1-3.5 | 2.07 (0.74) 1-4 | 1.91 (0.72) 1-4 | 0.489 | Small-Medium | Teaching & Research (Composite) | 1-4 | 1.92 (0.83) 1-4 | 2.41 (0.81) 1-4 | 2.19 (0.85) 1-4 | 0.601 | Medium | Instruction Planning (Composite) | 1-4 | 1.61 (0.84) 1-4 | 2.10 (1.02) 1-4 | 1.88 (0.97) 1-4 | 0.659 | Medium | Professional Meetings (Composite) | 1-4 | 2.38 (0.98) 1-4 | 2.56 (0.88) 1-4 | 2.48 (0.93) 1-4 | 0.342 | Small |.

Source. Own research.

Table 3
MANOVA Results for Gender Differences

Construct	F-value	df	p-value	η^2	Cohen's d	95% CI for d	Interpre-tation
Online Tools Usage	8.42**	1, 138	.004	.058	0.489	[0.155, 0.823]	Small-Medium
Teaching & Research	12.67***	1, 138	< .001	.084	0.601	[0.263, 0.939]	Medium
Instruc-tion Planning	15.23***	1, 138	< .001	.099	0.659	[0.318, 1.000]	Medium

Construct	F-value	df	p-value	η^2	Cohen's d	95% CI for d	Interpretation
Professional Meetings	4.12*	1, 138	.044	.029	0.342	[0.009, 0.675]	Small

Note. Multivariate Test: Wilks' $\Lambda = .832$, $F(4, 135) = 6.82$, $p < .001$, $\eta^2 = .168$.
Source. Own research.

Table 6
Mann-Whitney U Tests (Robustness Checks)

Construct	U Statistic	Z	p-value	r	Agreement with MANOVA
Online Tools Usage	1847.5	-2.89	.004	.245	✓ Confirmed
Teaching & Research	1692.0	-3.56	< .001	.301	✓ Confirmed
Instruction Planning	1594.5	-3.90	< .001	.330	✓ Confirmed
Professional Meetings	2089.0	-2.03	.043	.172	✓ Confirmed

Source. Own research.

Complete Questionnaire Items

Instructions: All items rated on 4-point scale: 1 = small extent, 2 = moderate extent, 3 = large extent, 4 = very large extent (unless otherwise noted).

Online tools usage:

- Q12: To what extent do you use digital tools for teaching during wartime compared to routine times?
- Q13: To what extent do you use online collaboration platforms during wartime compared to routine times?
- Q15: To what extent do you create digital content during wartime compared to routine times?
- Q16: To what extent do you use advanced online platforms during wartime compared to routine times?
- Q18: To what extent do you use virtual meeting tools during wartime compared to routine times?
- Q19: To what extent do you use social media for teaching during wartime compared to routine times?

Teaching & research activities:

- Q1: To what extent do you dedicate time to teaching and research during wartime compared to routine times?
- Q2: To what extent do you dedicate time to teaching and research during wartime compared to routine times?
- Q17: To what extent do you dedicate time to teaching and research during wartime compared to routine times?

Instruction planning:

- Q20: To what extent do you engage in instruction planning during wartime compared to routine times?
- Q22: To what extent do you adapt your courses during wartime compared to routine times?
- Q23: To what extent do you develop new pedagogical methods during wartime compared to routine times?

Professional meetings:

- Q24: How much time do you devote to departmental meetings during wartime compared to routine times?
- Q25: How much time do you devote to student consultations during wartime compared to routine times?
- Q26: How much time do you devote to colleague interactions during wartime compared to routine times?
- Q27: How much time do you devote to virtual meetings during wartime compared to routine times?

Special item:

- Q5: How does the war period affect your research activities? (1=Working intensively, 2=Partially working, 3=Very difficult/unable to work)