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# Critical thinking, assessment, and educational policy in Palestinian universities

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## Abstract

This study examines the relationship between critical thinking and grades at the tertiary level, focusing on their social, political, and ethical implications. Employing a mixed-methods approach, this study combines survey data collection with in-depth interviews to generate comprehensive insights into the complex relationship between critical thinking and grades. The survey targets 173 faculty members, while the interviews focus on seven selected academic staff members from Palestinian universities, enabling a comprehensive understanding of the research objectives. Results showed that grades often hinder critical thinking skills and creativity, leading to rote memorization and limited creativity. The study also highlights the political implications of grades, as standardized testing influences education policies and curriculum decisions. Faculty members expressed criticism of the prioritization of grades, citing conventional evaluation methods, temporal limitations, and resource constraints. As critical thinking is crucial for comprehensive student development, contributing to problem-solving, decision-making, creativity, innovation, effective communication, and active citizenship, the study proposes diverse approaches to strike a balance between valuing grades and nurturing critical thinking abilities. By fostering critical thinking abilities, Palestinian students can enhance their preparedness for academic pursuits, personal growth, and societal contributions.

**Keywords** Critical thinking, Grades, Tertiary level, Social implications, Political implications, Ethical implications

## Introduction

Since the Israeli occupation of the West Bank and Gaza in 1967, Palestinian universities have acted as agents for cultivating and preserving national consciousness, focal points for resistance against Israeli colonialism and to the process of state building (Bruhn 2006; Hamamra 2021). Palestinian universities are at the crux of the Israeli-Palestinian conflict; academic institutions have been attacked by Israeli military occupation and many students and staff members were injured (Hamamra 2021). Ongoing conflict in Gaza has left more than 625,000 students and 22,500 teachers without any access to schools since October 7. Families across the Gaza Strip are struck with daily attacks on schools, hospitals, and homes, with over 76% of Gaza's schools damaged or destroyed. In the Gaza



Strip, all universities have closed. In addition to being without internet connection, the staff and students have been forced to stop all research, teaching, and studying. Widespread disruption is being experienced in the West Bank as a result of most universities switching to online instruction and support in order to prevent Israeli army incursions on campus and the harassment, arrest, or shooting of students and staff by armed Israeli settlers and soldiers (Fobzu 2023).

Shalhoub-Kevorkian (2010) notes that 'education is utilized as a tool for oppression in conflict zones, primarily and precisely because it can be used to affect social and political transformation, emancipation, and liberation' (p. 336). The significance of education as a means of liberation can be illuminated by the fact that many Palestinian schools and universities were closed by the Israeli occupation in 1967 and during the first Intifada in 1987 (Abo Hommos 2013; Asaad 2000). According to the Palestinian Central Bureau of Statistics (PCBS), the number of student martyrs enrolled in schools in Palestine has reached 3,141, with 3,117 from the Gaza Strip and 24 from the West Bank. Additionally, 4,863 students have been injured, including 4,613 in the Gaza Strip and 250 in the West Bank. Regarding detained students enrolled in schools, 67 have been detained, all of whom are from the West Bank (PCBS, 2023). In Gaza, approximately 84% of educational facilities have experienced damage or have been destroyed.

Despite the Palestinian Authority's control over the education system and their efforts to implement curriculum changes in schools and universities since its establishment in 1996, the prevailing teaching and learning approaches in Palestine continue to be predominantly teacher-centered in practice (Ayyoub et al. 2021). The reliance on traditional education methods, characterized by superficial text analysis and rote memorization, has placed Palestinian universities in a paradoxical situation. On one hand, they resist oppression and strive for liberation, while on the other hand, they inadvertently perpetuate oppressive practices through the very educational system they employ (Hamamra et al. 2021; Jabali 2022a, 2023). The traditional way of education that is based on rote learning and memorization hinders students' creative and critical abilities, impeding their participation in societal and political matters. One should be mindful to the fact that Israel perceives education as "an effective inculcator of the same cultural and Islamic propensities which have governed Arab intellectual categories for centuries" (Anabtawi 1986, p. 10). Thus, the traditional way of teaching perpetuates colonialism through nurturing students' passivity and silence.

The adoption of traditional teaching methods in Palestinian academic institutions can be attributed to several factors (Jabali, 2019, 2022b, 2023). Firstly, many students come from conservative rural areas that are ruled by a web of collective traditions. Secondly, while many professors have obtained their degrees from Arab universities, where traditional education systems are more prevalent. Despite the fact that a significant number of Palestinian scholars have obtained their higher degrees from Western universities, which typically prioritize and encourage creative and critical thinking, it is notable that some of these scholars become entrenched in the traditional teaching methods prevalent in Palestinian academia (Hamamra et al. 2022).

Traditional methods are selected because they constitute the predominant approach in the Palestinian educational system. Unfortunately, these universities are gradually shifting towards more innovative methods. However, due to the deeply entrenched traditional nature of the school system and the exclusive reliance on traditional exams in

the School General Examination (Tawjihi), traditional methods continue to dominate. This mindset persists into the university system, posing significant challenges to reform efforts, particularly since some instructors lack the necessary skills to facilitate change.

In their study on surveillance in online Palestinian universities during the Covid-19 pandemic, Hamamra et al. (2022) reveal how patriarchal and authoritarian dynamics within Palestinian society severely limit academic freedom and critical discourse. The researchers argue that the patriarchal system prevalent in Palestinian society, coupled with the authoritarian practices of the Palestinian Authority, creates a significant barrier to the free discussion of topics related to religion, sexuality, and politics. Furthermore, Hamamra et al. (2022) observe that many staff members and students come from rural, conservative areas where traditional values are deeply rooted. These individuals often resist any attempts to challenge the conservative norms of their universities. This resistance is particularly evident in their hostility towards instructors who incorporate critical frameworks such as Marxism, queer theory, and post-colonial approaches into their teaching. These critical lines are designed to critique and analyze issues of inequality, oppression, and power structures, but they are often met with opposition from those who view them as threats to established societal norms. Feminist ideals of gender equality and freedom are frequently perceived by conservative Palestinians as foreign impositions or symbols of Western and colonial immorality. This perception is not merely a matter of ideological disagreement but is deeply intertwined with cultural and political resistance to what is viewed as external influence.

The Palestinian academic climate is deeply affected by the ongoing Israeli occupation and the internal politics of the Palestinian Authority (PA). The PA's collaboration with Israel and internal factional conflicts creates a repressive environment that stifles free speech and democratic practices (Nuha et al. 2023). This repressive climate discourages innovative teaching methods that promote critical thinking and free expression, leading to a reliance on traditional, rote learning techniques (Smith and Scott 2023). The Israeli attacks of Palestinian universities and the imprisonment and exile of Palestinian academics for their political beliefs are direct interventions that undermine the educational system (Nuha et al. 2023; Smith and Scott 2023). These actions create an environment where universities are unable to fully develop or implement progressive teaching methods (Vesna et al. 2022).

Teaching, learning, and education play important roles in enhancing critical thinking skills (Aouaf et al. 2023). Nevertheless, the educational systems in many Arab countries are often marked by tendencies towards memorization, superficial analysis, rote learning, religious education, and a sense of deference and submission to the ruling regime and prevailing ideology. In their study on online education during the outbreak of the pandemic, Hamamra et al. (2021), drawing on Freire's concepts of banking education and dialogical mode of education, point out that in Palestinian universities and schools, students are frequently treated as passive recipients, viewed as empty vessels to be filled with knowledge by their instructors. Ramahi (2015) points out that "The available data in the Occupied Palestinian Territories indicate that both the curriculum content and modes of assessment in formal education do not respond adequately to the various challenges and demands of the political and socioeconomic conditions within this colonial context. Students in schools, colleges and universities are taught to become passive

recipients of pre-packaged knowledge as a result of an outdated pedagogy that is associated with power structures and patriarchal elites” (p. v).

Rote learning, devoid of active student engagement, serves little purpose as it reduces students to passive entities, undermining the effectiveness of the teaching process. As Paulo Freire pointed out, many instructors employ what he referred to as “banking education” (1970, p. 54), treating students as mere receptacles to be filled with information. According to Freire (1970), the more compliantly students allow themselves to be filled, the more highly they are regarded as successful learners. This approach undermines the inherent transformative capacity of education, thus suppressing the advancement of critical thinking and the cultivation of autonomous thinking among students (Khalili et al. 2022).

Within English departments in Palestinian universities, the predominant literary approach employed is often the formalist approach. Course reading lists frequently feature renowned canonical authors from British and American traditions. However, considering the global shift towards ‘English as a lingua franca’ (ELF), it is crucial that universities update these lists to include authors from various cultural backgrounds. This change will better reflect the current use of English for communication among non-native speakers and enhance students’ intercultural communicative competence (Alptekin 2002). In many literature courses, instructors analyze selected excerpts of literary texts, focusing on figurative language, sound devices, imagery, symbolism, and structure (Hamamra 2021). In the words of Hall (2005), teaching literature in Arab universities tends to be “conservative, over-specified in terms of excessive reading loads of prescribed canonical works, but underspecified in terms of educational aims, as if the value of literature was obvious” (p. 146). In many Palestinian universities, the teaching and learning process is oriented towards the acquisition of pre-determined “knowledge” in preparation for examinations. Students are typically tasked with providing commentary on specific lines from literary texts, identifying the speaker and context, and analyzing the employment of figurative language and imagery within those lines (Hamamra 2021).

Indeed, the primary focus of many instructors in this context revolves around preparing students to successfully pass their exams, which often necessitates a superficial analysis and synthesis of literary works. As a consequence, many students, particularly women who comprise the majority, pursue their studies with the sole objective of attaining degrees without actively engaging in the fight against social and political injustices. In this dynamic, the teacher assumes the role of a judge who determines what is deemed a “right” or “wrong” answer, leaving no room for alternative perspectives or interpretations.

#### **Theoretical Foundation.**

We employ Albert Bandura’s Social Cognitive Theory (SCT) so as to examine the complex link between critical thinking capabilities, instructors’ perceptions of grades and the mechanisms of learning and cognitive development. This theory underscores the crucial role of self-reflection, observational learning, and modeling processes.

Within the context of critical thinking and the perception of grades, it is important to point out the pivotal role that teachers can play as models for their students who have the opportunity to observe and learn from their teachers who exemplify proficient critical thinking skills and maintain favorable perspectives regarding academic grades (Yasir

and Alnoori 2020). According to Brečka, Valentová & Lančarič (2022), teachers who recognize the importance of critical thinking in students' academic and personal development are more likely to prioritize its integration into their teaching and assessment strategies. Teachers can enhance the understanding and application of critical thinking through the inclusion of targeted critical thinking activities, the presentation of thought-provoking questions, and the deliberate encouragement of student participation in class discussions (Eghtesadi and Jeddi 2019).

According to the Social Cognitive Theory, there exists a reciprocal relationship between critical thinking skills and instructors' perception of grades. On one hand, the possession and utilization of critical thinking abilities can substantially impact how students perceive their academic performance. Conversely, the perception of grades can also influence students' motivation and inclination to actively engage in critical thinking. Thus, this framework acknowledges the bidirectional nature of the relationship, highlighting how critical thinking skills and how grades are perceived mutually influence and interact with each other. Critical thinking enables students to communicate effectively, and have cross-cultural and cross-national awareness to make positive contributions to society (Zivkovic 2016). Besides, environmental factors such as instructional strategies, classroom climate, and feedback provided by teachers can impact students' critical thinking skills and their interpretation of grades; engaging students in discussion, providing them with real-world examples, and providing mentorship, critical thinking skills can be improved (Abrami et al. 2015).

### **Implications of prioritizing grades over critical thinking in Palestine**

Assessment occupies a prominent role within the educational system of Palestine, where testing and grading are obligatory. Various forms of assessment and grading practices have garnered recognition due to their beneficial effects on student motivation, academic growth, and the cultivation of critical thinking skills (Abualrob and Al-Saadi 2019; Ayyoub et al. 2017). The grading process can vary from teacher to teacher and across different subjects and content areas, resulting in a lack of objectivity and fairness in evaluating students' performance (Abualrob and Al-Saadi 2019). Additionally, little emphasis is placed on inquiry-based learning and critical thinking; instead, memorization is the main priority (Ayyoub et al. 2021).

Grades have traditionally served as a predominant method for evaluating students' academic achievements within modern educational systems. However, an exclusive focus on grades can overshadow the nurturing and cultivation of critical thinking abilities. Grades distort genuine motivation for learning and constitute a decisive factor in the impairment of students' thinking abilities. Placing grades as a higher priority than critical thinking can yield a range of ethical, social, and political ramifications that impact both individual students and society at large. This study aims to explore the complex implications of emphasizing grades over critical thinking, as perceived by Palestinian faculty members.

The focus on the traditional way of teaching based on rote learning and memorization highlights the absence or death of dialogue-based education, which fosters critical consciousness and social awareness. Freire (1970) critiques the banking system and advocates for a pedagogy grounded in dialogue, as it promotes liberation, democracy, and equity. Pedagogies that prioritize dialogue and active engagement enable students to

develop awareness of their circumstances and rights, empowering them to resist various forms of injustice. Taylor (1993), drawing on Freire's texts, argues that "Conscientization is a process of developing consciousness, but consciousness that is understood to have the power to transform reality" (p. 52). The process of conscientization, signifying the growth of critical awareness, emerges through continuous dialectical dialogue between individuals and the world around them. According to Freire (1983), "to be human is to engage in relationships with others and with the world" (p. 3).

However, despite the importance of dialogue in freeing students' thinking from their teachers' preconceptions, Hamamra et al. (2021), in their study on online education and the decolonization of education, argue that in-class education, many instructors discourage classroom discussions. Ethically speaking, these instructors' dismissal of students' discussions emanates from their lack of hope and faith in their students. Students internalize this oppressive system, retreating into silence to avoid their teachers' criticism. These instructors, by replicating the role of the colonial power, akin to the Israeli occupation, perpetuate student passivity and docility, hindering Palestinians' ability to assert their own voices. Thus, the development of critical thinking in education is essential for the formation of conscious, proactive, and responsible citizens capable of confronting the social, economic, and political challenges of our time.

## Methods

This study used a mixed-methods approach to investigate the complex relationship between critical thinking and grades in tertiary education. The research design included quantitative data collection via a targeted survey as well as qualitative data collection via in-depth interviews. The survey incorporated 173 faculty members from various tertiary institutions. A carefully constructed questionnaire was used to collect quantitative data on demographic variables and to investigate the role of grades in assessing academic achievement, promoting critical thinking, and influencing employment and educational opportunities. In addition to the survey, in-depth interviews were conducted with a carefully chosen group of seven academic staff members from Palestinian universities. These participants were chosen for their expertise and unique perspectives on the study's objectives. The interviews provided rich qualitative insights into the importance of grading systems and the current lack of emphasis on developing critical thinking skills.

Triangulation was indeed a key rationale behind our choice to combine quantitative data collection via a targeted survey with qualitative data collection through in-depth interviews. Triangulation allows us to cross-verify and enrich our findings by integrating multiple data sources, thus enhancing the validity and comprehensiveness of our research (Denzin 1978; Patton 1999). By employing both surveys and interviews, we aim to capture a broader range of perspectives and obtain a more nuanced understanding of the research topic (Creswell and Plano Clark 2011).

The collected data was thoroughly analyzed using both quantitative and qualitative techniques. To investigate the relationship between critical thinking and grades, quantitative data from the survey were subjected to rigorous statistical analyses, including descriptive statistics and inferential tests. The qualitative data from the interviews was examined, with thematic analysis used to identify emerging themes and patterns. The study carefully followed ethical considerations by ensuring participant confidentiality,

obtaining informed consent, and adhering to established ethical guidelines governing human subjects research.

### **Study instrument**

This study analyzes the relationship between critical thinking and grades at the tertiary level, focusing on social, political, and ethical implications. A structured questionnaire with demographic variables and Likert-scale items was used to gather data. The questionnaire included demographic variables, like gender, university affiliation, years of experience, faculty type, and position. The Likert-scale items addressed the role and impact of grades on academic performance, critical thinking skills, employment, and educational opportunities. The study also examined the political implications of grades, including their impact on education policies, curriculum decisions, and ethical grading practices. This study also used interviews to gather qualitative data on the perspectives and experiences of Palestinian university academic staff members. Seven participants were interviewed using a structured guide, asking open-ended questions about grading systems, prioritizing grades over critical thinking, and challenges in promoting critical thinking skills. The interviews were conducted in a conversational manner, allowing for follow-up questions and probing to uncover deeper insights.

### **Questionnaire validity and reliability**

To ensure the questionnaire's validity and reliability, a comprehensive factorial validity and reliability analysis was conducted across three domains: Social, Political, and Ethical. We used SPSS with the Promax rotation method, retaining factors with Eigenvalues greater than 1.0 to ensure the factors were meaningful.

To assess the adequacy of our sample, we used the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy, which resulted in a value of 0.922. This high KMO value indicates that the sample size was more than sufficient for a reliable factor analysis, ensuring that the variables shared common factors. Bartlett's Test of Sphericity was also employed, yielding an approximate Chi-Square of 13990.820 ( $df=435, p<.001$ ). This significant result indicates that the correlations between items were strong enough to proceed with factor analysis, confirming the appropriateness of the factor model.

The threshold for retaining factors was set at an Eigenvalue greater than 1, which helps in identifying factors that explain a substantial amount of variance. The Promax rotation method was chosen to achieve a simpler and more interpretable factor structure, allowing for correlations between factors.

The results, as shown in Table 1, demonstrated high factor loadings ranging from 0.69 to 0.89, indicating strong correlations between the items and their respective underlying factors. The variance explained by the factors was 36% for the Social domain, 32% for the Political domain, and 21% for the Ethical domain, showing that a significant portion of the variance in responses was attributable to the measured constructs. Additionally, the Cronbach's alpha values were 0.83 for the Social domain, 0.85 for the Political domain, and 0.79 for the Ethical domain, confirming the internal consistency and reliability of the questionnaire items. These analyses provide robust evidence that the questionnaire effectively measures the intended constructs.

The table provides evidence of the factorial validity and reliability of the questionnaire items across three domains: Social, Political, and Ethical. The high factor loadings

**Table 1** Factorial validity and reliability

Domain	Item	Factor loading	Variance explained	Cronbach's alpha
Social	1-Grades are often used as a measure of academic achievement and are heavily relied upon in education systems worldwide.	0.74	0.36	0.83
	2-Grades provide a standardized way of assessing students' performance and progress.	0.81		
	3-Grades can sometimes promote rote memorization and discourage critical thinking skills.	0.76		
	4-Grades can limit students' ability to think creatively, problem-solve, and analyze information critically.	0.83		
	5-Grades often serve as a screening mechanism for employment and further educational opportunities.	0.69		
	6-Employers and educational institutions frequently use grades as a way to assess applicants' abilities and qualifications.	0.80		
	7-Over-reliance on grades as the sole indicator of an individual's potential results in overlooking other valuable skills and qualities such as critical thinking, creativity, and collaboration.	0.72		
	8-Individuals who excel in critical thinking but may not have top grades can be disadvantaged in the job market or educational admissions processes.	0.73		
	9-Good grades are often seen as indicators of competence, intelligence, and work ethic.	0.75		
	10-While grades serve certain purposes in education and employment systems, they should be complemented by fostering critical thinking skills.	0.71		
	11-High grades are often celebrated and associated with success, while low grades may be perceived as failure.	0.87		
	12-Individuals with excellent critical thinking abilities but lower grades may face barriers in accessing certain job opportunities.	0.70		
Political	1-Grades, often influenced by standardized testing, can shape education policies and curriculum decisions.	0.74	0.32	0.85
	2- The use of grades as a criterion for admission may contribute to social inequality.	0.78		
	3- When critical thinking is devalued in education and political discourse, the society becomes less informed and democratic.	0.84		
	4- Critical thinking is fundamental to active citizenship and civic engagement.	0.88		
	5- Overemphasis on grades alone can result in voter ignorance, apathy, and a decrease in civic engagement.	0.76		
	6- Public confidence in governments is undermined when critical thinking is lacking or grades are the only measure of knowledge.	0.75		
Ethical	1- Ethical grading practices should be transparent, objective, and free from bias to ensure fairness and promote social justice.	0.77	0.21	0.79
	2-Moral, ethical concerns arise as grades increasingly replace other motivators for students, such as intrinsic motivation, curiosity, and the joy of learning.	0.77		
	3-The pressure to achieve high grades can have detrimental effects on students' mental health and well-being.	0.83		
	4-Excessive academic stress, anxiety, and competition can arise from the high stakes associated with grades.	0.85		
	5-Traditional grading systems often rely on standardized tests and assignments that may not effectively measure critical thinking abilities.	0.89		

**Table 1** (continued)

Domain	Item	Factor loading	Variance explained	Cronbach's alpha
	6-Grades can influence how students perceive themselves and how they are perceived by others.	0.82		
	7-Ethical implications arise when academic misconduct, such as cheating or plagiarism, undermines the integrity of the grading process.	0.76		
	8-There exists a pronounced fixation on grades within university education.	0.71		
	9-Students in higher education prioritize grades over knowledge acquisition.	0.85		

**Table 2** Participants' attributes

Variables		Count
Gender	Male	91
	Female	82
University	An-Najah National University	40
	Palestine Technical University- Kadoori	30
	Hebron University	20
	Aarb American University in Jenin	24
	Berziet University	23
	Al-Quds Open University	12
	Bethlehem University	24
Experience	Less than or 5 years	44
	6–10 years	38
	11–15 years	49
	16 years or more	42
Faculty	Humanities	75
	Education	31
	Economic	40
	Scientific	27
Title	Instructor	47
	Lecturer	45
	Assistant prof	48
	Associate prof	33

across all domains demonstrate that the items are good indicators of their respective constructs. The variance explained indicates a significant proportion of the variance is accounted for by the factors, and the Cronbach's alpha values confirm the internal consistency of the items within each domain.

## Results

### Quantitative results

#### *Demographic characteristics*

The dataset presents a comprehensive overview of the demographic composition across various categories, encompassing gender, university affiliation, experience level, faculty membership, and academic titles (Table 2). Analysis of the data reveals a relatively equitable distribution between genders, with 91 male and 82 female participants. In terms of university representation, An-Najah National University emerges as the most prominently featured institution, with 40 individuals, followed by Palestine Technical

University- Kadoori (30), The Arab American University in Jenin (24), Bethlehem University (24), Berziet University (23), Hebron University (20), and Al-Quds Open University (12). The dataset also sheds light on participants' experience levels, delineating the proportions of individuals with less than or 5 years (44), 6–10 years (38), 11–15 years (49), and 16 or more years (42) of experience. Furthermore, the data elucidates the distribution across faculties, with the humanities faculty exhibiting the highest enrollment of 75 individuals, followed by education (31), economic (40), and scientific (27) faculties. Lastly, the dataset presents insights into the academic titles held by participants, wherein instructor (47) and lecturer (45) emerge as the predominant titles, followed by assistant professor (48) and associate professor (33).

**Results of the first question**

Table 3 below presents descriptive statistics for 173 items and constructs, categorized into social implications, political implications, and ethical implications. Social implications have mean scores ranging from (3.07 to 3.72), while political implications have mean scores ranging from (3.17) to (3.57). The overall social construct, 'SSS,' has a mean

**Table 3** Descriptive statistic for items and constructs

Item /construct No.	Count	M	S. D.
<b>Social domain</b>			
S1	173	3.72	1.34
S2	173	3.48	1.37
S3	173	3.6	1.3
S4	173	3.07	1.33
S5	173	3.38	1.36
S6	173	3.5	1.23
S7	173	3.57	1.32
S8	173	3.62	1.21
S9	173	3.56	1.23
S10	173	3.68	1.27
S11	173	3.71	1.32
S12	173	3.41	1.33
<b>Total</b>	<b>173</b>	<b>3.52</b>	<b>0.68</b>
<b>Political domain</b>			
P1	173	3.17	1.34
P2	173	3.3	1.27
P3	173	3.51	1.26
P4	173	3.57	1.31
P5	173	3.36	1.32
P6	173	3.32	1.34
Total	173	3.37	0.9
<b>Ethical domain</b>			
E1	173	3.82	1.27
E2	173	3.62	1.2
E3	173	3.72	1.25
E4	173	3.61	1.19
E5	173	3.69	1.16
E6	173	3.55	1.22
E7	173	3.71	1.23
E8	173	3.48	1.15
E9	173	3.66	1.34
Total	173	3.65	0.74

score of (3.52), with a standard deviation of (0.68). Political implications have mean scores ranging from (3.17 to 3.57), with standard deviations ranging from (1.26 to 1.34). Ethical implications have mean scores ranging from (3.48 to 3.82), reflecting participants' viewpoints in this domain. The overarching ethical construct, 'EEE', has a mean score of (3.65), with a standard deviation of (0.74).

The mean scores exhibited a range of (3.07 to 3.72), signifying participants' average level of agreement or disagreement with each statement and indicating the presence of divergent perspectives on the role and impact of grades. Statements related to academic achievement, such as the utilization of grades as a measure and a standardized method for assessing student performance, received relatively higher mean scores, suggesting a general consensus among participants. However, statements highlighting the potential negative consequences of grades, including their association with rote memorization, hindrance to critical thinking skills, and disregard for other valuable qualities, received moderately positive mean scores, indicating a recognition of these concerns. Similarly, statements discussing the connection between grades and employment or educational opportunities had moderate mean scores, implying an acknowledgment of grades' role in screening processes. Statements emphasizing the value of fostering critical thinking skills alongside grades received relatively higher mean scores, indicating an understanding of the necessity for a comprehensive approach to evaluation. Furthermore, statements that depicted grades as indicators of competence, intelligence, and work ethic garnered moderately positive mean scores, highlighting participants' recognition of the conventional association between grades and these qualities.

The analysis also shows moderate agreement among participants on the influence of grades on education policies and curriculum decisions. They also acknowledge the potential contribution of grades as an admission criterion to social inequality. Participants also recognize the importance of critical thinking in fostering active citizenship and civic engagement. However, they acknowledge the drawbacks of overemphasis on grades, such as negative impacts on voter engagement and civic participation. They also recognize the negative effect on public confidence in governance when critical thinking is undervalued or grades serve as the sole measure of knowledge.

Moreover, Table 3 shows high agreement among participants regarding the importance of transparent, objective, and unbiased grading practices for fairness and social justice. They also acknowledge moral and ethical concerns about replacing intrinsic motivation, curiosity, and learning joy with grades. They also acknowledge the negative effects of high grades on students' mental health and well-being, as well as the limitations of traditional grading systems relying on standardized tests and assignments. They also acknowledge the impact of grades on self-perception and external judgments, and the ethical implications of academic misconduct, such as cheating or plagiarism. The findings highlight the disproportionate emphasis on grades within academic contexts, highlighting the need for more ethical practices in grading processes.

Table 4 below displays statistical measures, including test values, means (M), standard deviations (SD), degrees of freedom (df), t-values, and corresponding p-values for each domain. The social domain has a mean score of (3.52), with a standard deviation of (0.68). A significant difference (t-value of -13.17) is observed between the observed mean score and the specified test value, with a p-value of (0.00). The political domain has a mean score of (3.37), with a standard deviation of (0.90). A significant difference

**Table 4** One sample t-test

Test Value	M	SD	Df	4.2		3.4		2.6	
				t	P	t	P	t	P
SOCIAL	3.52	0.68	172	-13.17	0.00	2.42	0.02		
POLITICAL	3.37	0.90	172	-12.14	0.00	-0.40	0.69	11.34	0.00
ETHICAL	3.65	0.74	172	-9.79	0.00	4.48	0.00		

(t-value of -12.14) is observed between the observed mean score and the designated test value, with a p-value of (0.00). The ethical domain has a mean score of (3.65), with a derived t-value of (-9.79). A p-value of (0.00) indicates a significant discrepancy, with the observed mean score in the ethical domain significantly deviating from the anticipated value of (2.6).

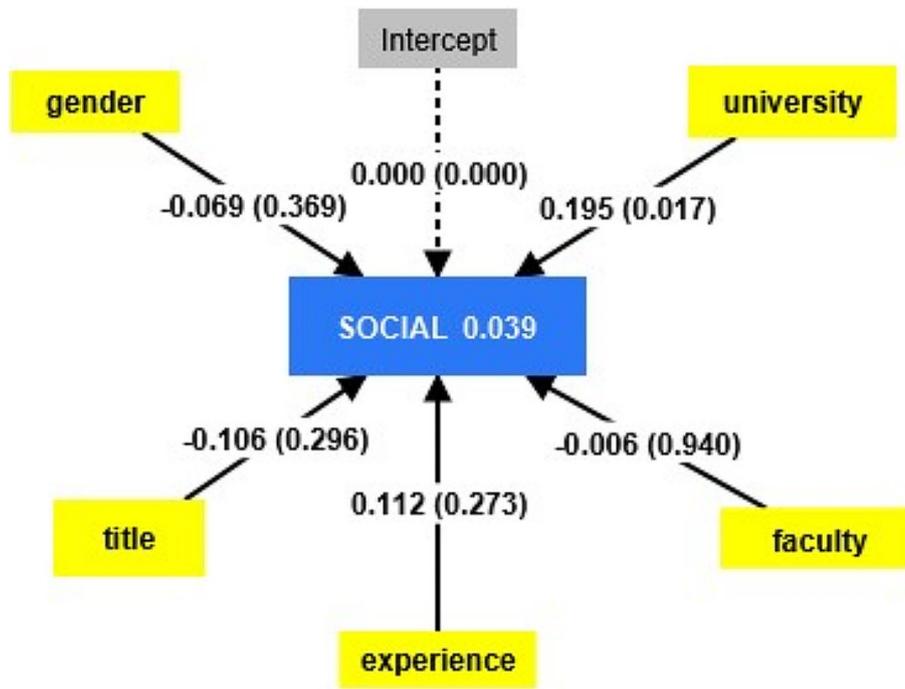
Based on the information provided in the table, it can be observed that the mean scores and standard deviations for the social and political constructs are relatively higher compared to the ethical construct. The results of the one-sample t-tests indicate that the social construct significantly deviates from the given test value, whereas the political construct shows a significant difference but with a small effect size. On the other hand, the ethical construct exhibits a significant and substantial difference from the test value. It suggests that the social and political constructs have higher average scores and greater variability compared to the ethical construct. This could imply that individuals or groups tend to have stronger opinions or attitudes toward social and political issues, and there may be more diversity in those opinions, as reflected by the higher standard deviations. In contrast, the ethical construct may have lower average scores and less variability, indicating less pronounced or more consensus-based attitudes or opinions in that area. These findings provide valuable insights into the distinctions between the constructs and their alignment with the specified test values.

**Results of the second question**

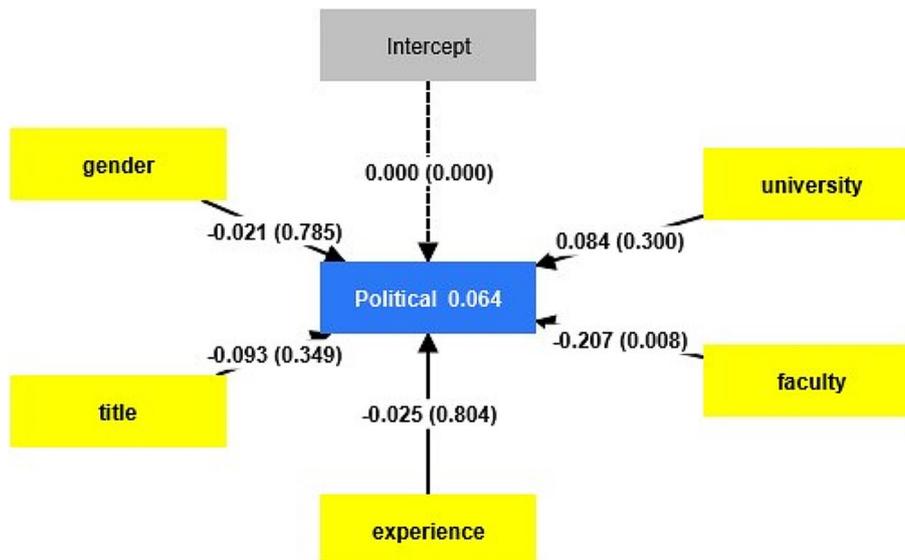
To answer the second question: “Are there statistically significant variations in perceptions and attitudes towards critical thinking based on demographic variables among Palestinian university staff members?”, the researchers addressed this question by employing multiple regression analysis using Smart-PLS 4. The demographic variables considered were gender, title, experience, faculty, and university. Each of these variables was assessed in relation to three key constructs: social, political, and ethical (see Figs. 1 and 2, and 3).

The analysis shows that demographic factors have a minor impact on the social construct, accounting for only (0.04) of the variance. Faculty, title, experience, and gender do not significantly influence the social construct. However, the university variable is a significant contributor, with a significant p-value of (0.02) and a positive regression weight of (0.2). The universities were arranged in descending order, with An-Najah National University, Palestine Technical University, Hebron, Arab American University in Jenin, Berziet University, Al-Quds Open University, and Bethlehem University. The findings suggest an adverse relationship between university variables and the social construct, suggesting that the social construct tends to be stronger with the progression from An-Najah National University down to Bethlehem University as Table 2 above.

According to Fig. 2, the demographic variables’ combined contribution to the political construct accounts for (0.06) of the variance. However, as shown by their respective

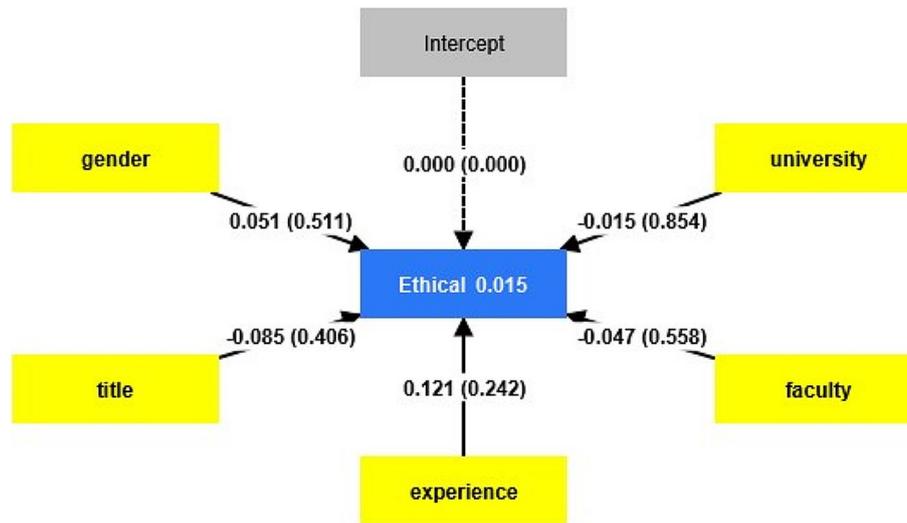


**Fig. 1** Path diagram of predictors influencing social factors



**Fig. 2** Path diagram of predictors influencing political factors

p-values of (0.79, 0.35, 0.80, and 0.30), which all exceed the threshold of (0.05), gender, title, experience, and university do not significantly affect the political construct. The faculty variable, on the other hand, exhibits a significant influence on the political construct, with a notable p-value of (0.008) and a negative regression weight of (-0.21). The analysis suggests an inverse relationship between the political construct and the order of disciplines. Specifically, as we move downwards from the faculty of Humanities to Education, Economic, and Scientific disciplines, the political construct tends to exhibit a growth pattern. This trend indicates that the faculty of Humanities shows higher rates of



**Fig. 3** Path diagram of predictors influencing ethical factors

the political construct compared to the other three types of faculties, followed by Education, Economic, and Scientific disciplines in descending order as shown in Table 2. The findings imply a potential association between the disciplinary focus and the manifestation of the political construct, with the Humanities faculty having a more pronounced impact.

Figure 3 shows that the demographic factors explained (0.02) of the variance in the ethical construct as a whole. The analysis, however, shows that none of the demographic factors (gender, title, experience, faculty, and university), have a discernible impact on the ethical construct. Their respective p-values of (0.51, 0.41, 0.24, 0.56, and 0.86), all of which are higher than the cutoff of (0.05), support this. These results suggest that the demographic variables that were taken into consideration in the study’s context did not significantly influence the ethical construct.

**Qualitative results**

We have conducted interviews with seven academic staff members, aiming to gain further insight into their perspectives and viewpoints on the emphasis on grading systems and the apparent lack of focus on fostering critical thinking skills in Palestinian academic institutions. The choice of the participants was based on a set of shared attributes: male Assistant Professors of English language and literature, having a teaching experience ranging from 6 to 10 years, and being part of the same academic faculty (the Faculty of Arts).

The faculty members were assigned alphabetical abbreviations corresponding to their universities: An-Najah University (N), Al-Quds Open University (Q), Birzeit University (B), Arab American University (A), Al-Khadouri University (K), Hebron University (H), and Bethlehem University (BU).

**In your opinion, what are the main reasons why grades are prioritized over critical thinking in the classroom?**

The university faculty members interviewed asserted that a significant number of existing educational structures rely on conventional modes of evaluation, such as

examinations and standardized tests. These traditional methodologies often promote an emphasis on rote learning and mere memorization of information, undermining the importance of developing critical thinking abilities.

Three faculty members (TH, A and B) emphasized that the temporal limitations inherent within an academic semester or year could present significant impediments for instructors attempting to incorporate and evaluate critical thinking skills within their teaching strategies. The requirement to deliver a wide-ranging curriculum or to satisfy predetermined learning outcomes can often eclipse the necessity of allotting substantial time for in-depth critical thinking exercises and discussions.

Three other faculty members (N, Q, and K) suggested that overcrowded classrooms and restricted time and resource availability for instructors hinder the enhancement of critical thinking skills. In addition, it was noted that academic administrators frequently underscore grades as a barometer of both institutional success and the efficacy of instructors, fostering an environment that values grades over the development of critical thinking.

#### **Can grades be identified as a factor contributing to the low quality of education in Palestinian universities?**

(H) asserted that students are more focused on achieving high grades rather than gaining a deep understanding of the subject matter. As a result, the emphasis on grades can lead to a shallow approach to learning, where students may prioritize memorization and regurgitation of information." In the same context, (B and BU) added, "When grades are the primary focus, students may not receive detailed feedback on their strengths, weaknesses, or areas for improvement. This can hinder their ability to learn and grow, as they may not understand where they went wrong or how to enhance their understanding." (A) and (N) argued that an excessive dependence on grades may fail to provide an accurate portrayal of a student's true abilities, potential, or progressive development over time.

#### **Why do you think critical thinking is important for students' overall development?**

(Q) asserted that "Critical thinking is essential for students' overall development because it equips them with valuable skills that are applicable in various aspects of life." Likewise, (A and BU) asserted that "Critical thinking enables students to analyze problems, evaluate evidence, and consider multiple perspectives to arrive at well-reasoned solutions. It fosters creativity, innovation, and the ability to approach challenges with a systematic and logical mindset." (K) emphasized that "Critical thinking allows them to evaluate the reliability and credibility of information, enabling them to make choices that are well-grounded and align with their goals and values." (Q) emphasized the importance of critical thinking to students' engagement and empowerment, highlighting that "critical thinking empowers students to be active and engaged citizens in their communities. It helps them critically evaluate social issues, media messages, and policy decisions, enabling them to make informed judgments and participate constructively in democratic processes." Commenting on the importance of critical thinking to students' communication skills, (B) emphasized that "Critical thinking enhances students' communication skills by enabling them to articulate their thoughts, ideas, and arguments effectively".

**Do you believe that placing more emphasis on grades affects students' ability to think critically? How?**

(BU and N) pointed out that "When grades are prioritized, students may be more inclined to focus on memorizing facts and rehearsing information rather than engaging in deeper critical thinking. They may prioritize short-term memorization strategies to perform well on exams, rather than developing the analytical and evaluative skills required for critical thinking." (B) emphasized that "An overemphasis on grades can create a fear of failure in students. This fear can lead them to adopt risk-averse strategies, such as sticking to safe and predictable answers or avoiding challenging tasks that may involve uncertainty. Critical thinking often requires taking risks, exploring different perspectives, and being comfortable with uncertainty, but the pressure to maintain high grades can hinder students from embracing these aspects of critical thinking." (Q) pointed out that "If exams consist mainly of multiple-choice questions that test recall rather than analytical thinking, students may not see the value in cultivating critical thinking abilities."

In agreement with these perspectives, (A) asserted, "An excessive focus on grades can shift students' motivation from intrinsic to extrinsic. Instead of pursuing knowledge and understanding for their own sake, students may become primarily motivated by the desire to achieve high grades. Intrinsic motivation, driven by curiosity, passion, and a love for learning, is closely linked to critical thinking development. When students are driven primarily by external rewards, their intrinsic motivation and engagement in critical thinking activities may diminish."

**What challenges do you face in promoting critical thinking skills among your students?**

There are some common challenges university instructors may face in promoting critical thinking skills among students. Each university member was asked to give just one example. For (Q), it was Limited time. He argued that "Staff members often have a prescribed curriculum to cover within a fixed time frame. Finding sufficient time to incorporate activities that foster critical thinking can be a challenge" (N) emphasized that "In classrooms with a high student-to-teacher ratio, it can be difficult to provide individualized attention and feedback that supports the development of critical thinking skills. Group discussions and interactive activities may be challenging to facilitate effectively." (BU) asserted that "Standardized testing and traditional assessment methods, which may not align well with assessing critical thinking, can limit instructors' ability to evaluate and provide feedback on students' critical thinking skills. Finding alternative assessment strategies that effectively measure critical thinking abilities can be a challenge." Resistance to change emerged as a salient issue for (K), who noted, "Introducing critical thinking pedagogy or shifting from traditional teaching methods can face resistance from various stakeholders, including students, parents, and administrators. Some may be more comfortable with traditional approaches and may be hesitant to embrace change." (H) argued that "Access to appropriate teaching materials, technological resources, and professional development opportunities specifically focused on promoting critical thinking can be limited. Educators may face challenges in finding and implementing effective strategies and tools to enhance critical thinking skills." (A) shed light on the internal dynamics within a classroom setting that could pose challenges. He argued, "Cultivating a classroom culture that encourages students to think critically

requires fostering intrinsic motivation and a growth mindset. However, some students may have fixed mindsets, where they believe their abilities are predetermined and fixed.”

**Are there any strategies or methods that you find effective in fostering both critical thinking and achieving good grades simultaneously?**

(H) made a compelling case for metacognition, suggesting, “We should teach metacognitive skills to improve their critical thinking abilities while also enhancing their academic performance.” (N) emphasized the value of inquiry-based learning. He pointed out, “We have to incorporate inquiry-based learning approaches that encourage students to ask questions, investigate, and explore topics in depth. Providing opportunities for students to engage in research projects, problem-solving activities, and open-ended discussions promotes critical thinking skills while allowing for the demonstration of knowledge and understanding, which can positively impact grades.” (A) suggested an application-based assessment approach. As he posited, “Design assessments that require students to apply critical thinking skills to solve real-world problems or complex scenarios. This could involve case studies, projects, or simulations that prompt students to analyze, evaluate, and synthesize information. By aligning assessments with critical thinking objectives, students can demonstrate their abilities while earning good grades.” (BU and B) recommended a graded approach to task assignment, suggesting that instructors “increase the complexity and independence of tasks, offering guidance and resources along the way. This ensures that students can achieve good grades while building their critical thinking abilities step by step.” Meanwhile, (K) emphasized the importance of the use of detailed rubrics for assessment. He suggested that instructors “use rubrics that assess both content knowledge and critical thinking skills. This helps students understand how their critical thinking abilities are being evaluated and allows them to focus on meeting the specific requirements while still demonstrating their critical thinking skills.” In their concluding remarks, all interviewed professors concurred on the importance of providing constructive feedback. As (B) aptly noted, “Detailed feedback helps students understand how to enhance their critical thinking abilities while aiming for good grades.”

**How do you think the education system can strike a balance between valuing grades and nurturing critical thinking skills?**

(K) suggested that to harmonize the valuing of grades and fostering of critical thinking skills in the education system, it is necessary to “clearly define learning objectives that encompass both subject-specific knowledge and critical thinking skills.” (B and BU) asserted that the burden is on faculty development programs that focus on the development of critical thinking abilities. According to (B), educational institutions should “provide teachers with training and professional development opportunities that focus on promoting critical thinking skills in the classroom.” In addition to this, (H) stated that it is instrumental to empower instructors with appropriate pedagogical methods and evaluative ones so as to ensure the nurturing of critical thinking skills while concurrently maintaining academic standards and grading expectations: “equipping educators with strategies, instructional techniques, and assessment methods that foster critical thinking while still addressing academic standards and grading expectations.” (A) proposed a revision in the assessment criteria. According to (A), it is important to “utilize a range of assessment methods that go beyond traditional exams and standardized tests. They

incorporate performance-based assessments, portfolios, projects, and presentations that require critical thinking and problem-solving abilities.” (N) emphasized that it is necessary to “integrate real-world applications of knowledge and critical thinking skills into the curriculum. This helps students understand the relevance of critical thinking in their lives and encourages them to apply their skills in meaningful ways.” Finally, (Q) accentuated the adoption of reflective practices and metacognitive exercises in the learning process, suggesting that “incorporating reflection and metacognitive practices into the learning process to help students develop an awareness of their own thinking processes, encourage them to reflect on their learning, set goals, and monitor their progress.”

The seven faculty members stress the urgent need to reassess and transform the existing education system, pointing out the importance of a shift from an overwhelming focus on grades to a system that prioritizes the development of critical thinking skills through varied assessment methods, and incorporating practical applications in curriculum design. Moreover, the interviewed faculty members highlight the incorporation of reflective and metacognitive practices.

## **Discussion**

The analysis revealed diverse perspectives on the role and impact of grades. The interviewees outline potential negative consequences, such as promoting rote memorization and limiting critical thinking skills. According to Albert Bandura’s Social Cognitive Theory (SCT), behavior is learned through the interaction of personal factors, behavioral patterns, and environmental influences. In this context, the emphasis on grades can shape students’ behaviors and attitudes by reinforcing extrinsic motivations over intrinsic ones, thus affecting their learning processes and outcomes.

They also emphasized the association between grades and employment or educational opportunities, highlighting the need for a comprehensive evaluation approach. SCT suggests that observational learning and modeling play a crucial role in how students perceive the importance of grades. Seeing peers rewarded for high grades can reinforce the belief that grades are the primary measure of success, potentially diminishing the value placed on critical thinking and creativity.

The participants emphasized the importance of fostering critical thinking skills alongside grades, highlighting the need for a comprehensive approach to evaluation. This aligns with SCT’s concept of self-efficacy, where students’ beliefs in their capabilities to perform tasks can influence their motivation and learning. Developing critical thinking skills can enhance students’ self-efficacy, leading to more meaningful and engaged learning experiences. They also acknowledged the influence of grades on education policies, curriculum decisions, social inequality, active citizenship, civic engagement, and voter engagement. They also highlighted the importance of transparent, objective, and unbiased grading practices for fairness and social justice. SCT highlights the impact of environmental factors on behavior. In this case, educational policies and practices that emphasize grades can create an environment that perpetuates social inequalities and limits opportunities for all students to develop critical thinking skills.

However, participants expressed concerns about the displacement of intrinsic motivation, negative effects on mental health, limitations of traditional grading systems, and the ethical implications of academic misconduct. SCT underscores the importance of reciprocal determinism, where personal factors, behavior, and environmental influences

interact. The focus on grades can negatively impact students' intrinsic motivation and mental health, as the learning environment becomes more about achieving grades than fostering a love for learning and personal growth.

The analysis of participants' perspectives on the role and impact of grades aligns with the literature on assessment practices and grading systems in Palestine. The literature emphasizes the prominent role of assessment within the Palestinian educational system, with testing and grading being obligatory (Abualrob and Al-Saadi 2019; Ayyoub et al. 2017). The findings reflect the variations observed in grading practices from teacher to teacher and across different subjects and content areas (Abualrob and Al-Saadi 2019). This inconsistency in grading practices contributes to a lack of objectivity and fairness in evaluating students' performance, which is also highlighted in the literature (Abualrob and Al-Saadi 2019).

Moreover, the literature points out the dominance of rote learning and memorization in Palestinian education, with limited emphasis on critical thinking and inquiry-based learning (Ayyoub et al. 2021). This aligns with the participants' recognition of potential negative consequences associated with grades, such as hindering critical thinking skills and prioritizing memorization over creativity and critical thinking. SCT's emphasis on the role of observational learning and modeling can explain how the current system perpetuates these behaviors among students.

Additionally, the literature highlights the influence of grades on university admissions and employment opportunities, emphasizing the importance placed on grades by the labor market (Calsamiglia and Loviglio 2019; Gomez 2017). The participants' recognition of the association between grades and employment/educational opportunities aligns with this literature. However, concerns are raised in the literature about the validity of grades as measures of academic achievement and the potential overemphasis on test scores in the evaluation process (Sawalmeh 2000). This resonates with the participants' acknowledgment of the limitations of grades and the need for a comprehensive approach that considers other qualities and skills alongside grades. Overall, the findings from the analysis of participants' perspectives on grades in this study align with the literature on assessment practices, grading systems, and the potential implications of focusing solely on grades within the Palestinian educational context.

It is important to note that the literature also highlights the need for new learning paradigms that go beyond content and incorporate innovative approaches and grading practices. This resonates with the participants' emphasis on fostering critical thinking skills alongside grades and recognizing the value of transparent, objective, and unbiased grading practices. Furthermore, the previous research emphasizes the importance of dialogue-based education, which promotes critical consciousness and social awareness. The participants' recognition of the limitations of traditional teaching methods, such as rote learning and memorization, and their call for the development of critical thinking align with this literature. However, the literature also highlights the presence of oppressive educational practices that discourage classroom discussions and hinder students' ability to assert their voices (Hamamra et al. 2021). While this aspect is not directly addressed in the participants' perspectives on grades, it points to the broader context of the need for educational reforms to foster critical thinking and empower students to challenge injustice.

The researchers used multiple regression analysis to examine the effects of demographic variables on perceptions and attitudes towards critical thinking among Palestinian university staff members. The study revealed that demographic factors have a minor impact on the social construct, accounting for only (0.04) of the variance. Faculty, title, experience, and gender do not significantly influence the social construct. However, the university variable is a significant contributor, with a significant p-value of (0.017) and a positive regression weight of (0.195). The findings suggest an adverse relationship between university variables and the social implications, suggesting that the social construct tends to be stronger or more pronounced with the progression from An-Najah National University down to Bethlehem University.

This study's findings on the influence of demographic factors on the social construct are consistent with previous research. Faculty, title, experience, and gender have a minor impact on the social construct, according to the study, which is consistent with previous research (Abualrob and Al-Saadi 2019; Ayyoub et al. 2017). The literature emphasizes these demographic variables' limited influence on social constructs, implying that they may not play a significant role in shaping individuals' perspectives and attitudes. The significant contribution of the university variable to the social construct, on the other hand, is consistent with the literature on the impact of educational institutions. According to the study, the social implications increase as one progresses through the university system, from An-Najah National University to Bethlehem University. This finding is consistent with previous research that has demonstrated the impact of university contexts on individuals' beliefs, values, and perspectives (Calsamiglia and Loviglio 2019; Gomez 2017). According to the literature, universities play an important role in shaping individuals' social constructs, and differences between universities can lead to differences in perspectives and attitudes.

The political implications domain, which accounts for (0.06) of the variance, is influenced by the faculty variable, with a notable p-value of (0.008) and a negative regression weight of (-0.207). The analysis suggests an inverse relationship between the political construct and the order of disciplines, with the Humanities faculty having a more pronounced impact. This finding is consistent with previous research that highlights the role of disciplinary backgrounds in shaping individuals' political perspectives and attitudes (Aanati 2013; Shweiki et al. 2021). The literature suggests that individuals from different disciplines may approach political issues differently, with the Humanities discipline often associated with a more critical and socially engaged perspective. This aligns with the literature on the influence of academic disciplines on political attitudes and beliefs. Previous research has shown that individuals with a background in Humanities or related disciplines tend to hold more progressive or liberal political views compared to those from other disciplines (Calsamiglia and Loviglio 2019; Gomez 2017).

The ethical construct, which accounts for (0.02) of the variance, is not significantly influenced by demographic factors, with p-values of (0.51, 0.41, 0.24, 0.56, and 0.85, all higher than the cutoff of (0.05). These results suggest that demographic variables did not significantly influence the ethical construct. Previous research recognizes variations in grading practices, leading to a lack of objectivity and fairness in evaluating students' performance (Abualrob and Al-Saadi 2019), which resonates with the study's finding. Furthermore, the literature acknowledges the dominance of rote learning and memorization in Palestinian education, with limited emphasis on critical thinking (Ayyoub et

al. 2021). This literature aligns with the study's focus on the potential implications of an exclusive focus on grades, which can hinder the cultivation of critical thinking abilities. The study's finding regarding the limited influence of demographic factors on the ethical construct further highlights the importance of embracing new approaches in education, such as dialogue-based pedagogies that foster critical consciousness and social awareness. However, the literature also raises concerns about oppressive educational practices that discourage classroom discussions and hinder students' ability to assert their voices (Hamamra et al. 2021). While this aspect is not directly addressed in the study's findings, it emphasizes the broader context of the need for educational reforms to promote critical thinking and empower students to challenge oppressive systems.

The results of the interviews with Palestinian faculty members shed light on several important aspects related to the prioritization of grades over critical thinking in the classroom and its implications. They highlighted the influence of traditional evaluation methods, such as exams and standardized tests, which tend to promote rote learning and memorization instead of critical thinking (Abualrob and Al-Saadi 2019; Ayyoub et al. 2021). The time constraints within an academic semester or year and the limited resources available to educators were also identified as factors that hinder the incorporation and evaluation of critical thinking skills (Ayyoub et al. 2021). Additionally, the faculty members noted that academic administrators often emphasize grades as indicators of institutional success and instructor efficacy, which further reinforces the focus on grades over critical thinking (Abu Thabet 2022).

Regarding the impact of grades on the quality of education, it was recognized that an excessive emphasis on grades can lead to a shallow approach to learning, where students prioritize memorization and rehearsal of information rather than a deep understanding of the subject matter (Abu Thabet 2022). The faculty members also highlighted the limitations of grades in providing meaningful feedback to students and accurately portraying their abilities and potential for growth (Abu Thabet 2022). Furthermore, concerns were raised about the unequal treatment of students and the potential unfairness of grades as a measure of academic achievement (Sawalmeh 2000).

Faculty members acknowledged the importance of critical thinking in students' development, highlighting its role in problem-solving, decision-making, creativity, and analyzing information from multiple perspectives. It also fosters communication, active citizenship, and informed judgments. However, challenges in promoting critical thinking skills include limited curriculum time, large class sizes, standardized testing, resistance to change, and limited access to teaching materials and professional development opportunities. To foster both critical thinking and good grades, faculty members proposed strategies like inquiry-based learning, application-based assessments, graded task assignments, detailed rubrics, and constructive feedback. To strike a balance between valuing grades and nurturing critical thinking skills, they suggested defining learning objectives, providing faculty enhancement programs, revising assessment methodologies, integrating real-world applications, and incorporating reflective practices and metacognitive exercises. These insights provide valuable considerations for educational reforms aimed at nurturing critical thinking abilities among Palestinian students.

### Limitations

The study has limitations, including a sample size of 173 faculty members and seven academic staff members from Palestinian universities, potential response bias, and cultural and educational context. The scope and time constraints may have influenced the relationship between critical thinking and grades, and resource limitations may hinder the implementation of strategies. The assessment of critical thinking and grades may be subject to measurement limitations, such as relying on existing grading systems and self-reported measures. Additionally, the absence of student perspectives may restrict a comprehensive understanding of the nuanced relationship between critical thinking and grades.

### Future implications

This study has significant implications for future research and educational practices. It suggests exploring the effectiveness of interventions promoting critical thinking skills in tertiary education, revising assessment methods, and reevaluating the significance of grades in education systems. Policymakers and stakeholders should critically examine the role of standardized testing and its influence on education policies and curriculum decisions. By prioritizing critical thinking skills and reevaluating the significance placed on grades, educational institutions can better prepare students for the complexities of the modern world, equip them with lifelong learning and success, and contribute to a more informed, democratic, and ethically responsible society. Future research can include longitudinal studies, comparative studies, intervention studies, and student perspectives.

### Abbreviations

N	An-Najah University
Q	Al-Quds Open University
B	Birzeit University
A	Arab American University
K	Al-Khadouri University
H	Hebron University
BU	Bethlehem University

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### Author contributions

OJ: Conceptualization, Investigation, Methodology, Writing- Original draft preparation, Writing- Reviewing and Editing final draft. BH: Reviewing and Editing final draft, Investigation, Validation. AA: Investigation, Data collection and curation, Reviewing and Editing final draft.

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### Data availability

The data that support the findings of this study are available from the corresponding author upon special request.

### Declarations

#### Competing interests

None.

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