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A brief validity report for the instructor strictness scales: relationships with instructor communication styles

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ABSTRACT

Researchers have begun using strictness as a framework for better understanding the communicative nature of classroom enforcement strategies. In pursuit of operationalizing this construct, the purpose of this study was to provide extended validity evidence for the Evaluative, Regulatory, and Interactive instructor strictness scales through hypothesized relationships with different instructor communication styles: perceived instructor verbal aggressiveness, assertiveness, and responsiveness. Analyses revealed that the strictness subdimensions were positively related to verbal aggressiveness and assertiveness and inversely related to instructor responsiveness. However, on three occasions, students' reports of strictness related to Norms, Availability, and Testing were not significantly related to assertiveness. Implications for the future study of instructor strictness using the proposed scales are discussed.

The idea of what it means for an instructor to be strict is not unknown to most students. Adolescent books, television shows, and other forms of popular media often portray teachers as strict when they enforce rules or treat students poorly. However, robust study of strictness from a communication perspective is sparse. Understanding how instructors communicatively enforce their strategies can provide theoretical and practical insight to the classroom management literature.

Strictness is conceptualized as the perceived inflexibility of an instructor based on their unwavering adherence to instructional policies and procedures (Tatum & Frey, 2021). Put simply, to be strict means that an instructor (1) closely monitors students' behaviors, (2) rigidly enforces implicit and explicit policies and norms, and (3) holds high standards for both behavior and content knowledge. Based on this definition, Frey and Tatum (2022) explored students' recollections of strict instruction to identify actual examples of strict behavior in a classroom setting. A thematic analysis of these narratives resulted in the identification of three general patterns of strictness: evaluative (i.e., related to grades and assessment procedures), regulatory (i.e., related to

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stated or implied rules and policies), and interactive (i.e., related to the interpersonal treatment of students). A second study operationalized each pattern, revealing several underlying dimensions reflecting various aspects of the instructional environment where an instructor might enforce their policies, procedures, or implicit rules. Summatively, there are three multidimensional scales measuring evaluative, regulatory, and interactive strictness.

The dimensions comprised by evaluative strictness reflect inflexibility related to *Standards* (e.g., amount of coursework), *Rounding* (e.g., willingness to curve or round grades), *Harshness* (e.g., severity of grading), and *Ambiguity* (e.g., clarity of directions). The dimensions comprised by regulatory strictness involve inflexibility related to *Norms* (e.g., expectations surrounding everyday classroom behavior), *Deadlines* (e.g., acceptance of late work), *Testing* (e.g., cheating on tests or exams), and *Technology* (e.g., control over students' devices). The dimensions comprised by interactive strictness reflect inflexibility related to *Excuses* (e.g., hearing rationales for breaking a policy), *Rudeness* (e.g., interpersonal treatment of students), and *Availability* (e.g., time provided to help students). All dimensions showed evidence of structural validity through confirmatory factor analyses that showed strong model fit, as well as convergent and concurrent validity through relationships with strictness and admonishing behavior from Wubbels et al. (1985) Questionnaire on Teacher Interaction (QTI), instructor caring, and cognitive flexibility.

Notably, the measure of strictness established by Wubbels et al. does provide important insight into how students perceive strict instruction; however, the QTI strictness measure fails to reference mandated policies like those related to academic integrity, excludes policies related to classroom technology, and fails to capture the complexity of strictness by only using a few items. Since the new strictness instruments attempt to overcome these limitations, generating extended evidence is paramount for their accepted use. The next logical step in establishing validity involves ensuring the scales are related to other, theoretically similar behaviors. Thus, this study evaluates associations between the three patterns of strictness (and their respective dimensions) and verbal aggressiveness and socio-communicative style.

Verbal aggressiveness occurs when a classroom instructor's message attacks another individual with the intent to dominate, defeat, and cause psychological pain (Infante, 1987). Researchers often disagree about how verbal aggressive is defined and subsequently measured (Levine & Kotowski, 2010), and it has been positioned as both a positive (e.g., Myers & Knox, 2000) and destructive instructor strategy within classroom communication research (e.g., Myers & Rocca, 2001). For example, Myers and Knox (1999) reported that instructor verbal aggressiveness was inversely related to student affect toward the instructor, the course, and the recommended course behaviors. Even in the context of classroom policies, Finn and Ledbetter (2014) argued that "when instructors regulate laptop/tablet use, students may perceive such

regulation as verbally aggressive" (p. 230). As such, all forms of strictness should be positively related to verbal aggression.

H1a-c: Evaluative, regulatory, and interactive strictness will be positively associated with verbal aggressiveness.

Socio-communicative style – categorized into dimensions of assertiveness and responsiveness - has also been extensively studied in the college classroom. Assertive individuals express their feelings, initiate and terminate conversations, and stick up for their personal beliefs. Though assertiveness is conceptualized similarly to verbal aggression, assertive individuals do not typically use their communication to take advantage of or impose upon others. Said differently, assertive instructors make requests of students and enact their policies, but they likely do so in a manner that does not pressure or harm students (Richmond & Martin, 1998). Contrarily, responsive individuals are empathetic, sensitive to others' needs, and compassionate. This does not mean responsive individuals are submissive to the needs of others; responsive communicators find ways to consider others' needs while maintaining their own personal goals (McCroskey & Richmond, 1996). Given patterns from existing research, strictness should be positively associated with assertiveness and negatively associated with responsiveness:

H2a-c: Evaluative, regulatory, and interactive strictness will be positively associated with instructor assertiveness.

H3a-c: Evaluative, regulatory, and interactive strictness will be negatively associated with instructor responsiveness.

Methods

Participants

Student participants ($N = 528$) were recruited from a large, Southern university. Participants included 151 men, 376 women, and 1 student who did not report, with ages ranging from 18 to 49 ($M = 20.10$, SD = 3.03). Class ranks varied across first-year students (36.93%), sophomores (17.42%), juniors (29.36%), seniors (14.96%), fifth-year seniors and beyond (0.19%), graduate student (0.19%), and unreported (0.95%). Participants were mostly homogenous in terms of ethnicity: White/Caucasian ($n = 432$; 81.82%), Black or African American ($n = 31$; 5.87%), Asian or Pacific Islander ($n = 27$; 5.11%),

Hispanic or Latino/Latina ($n = 20$; 3.79%), Native American or American Indian ($n = 1$; 0.19%), Bi-racial or Mixed ($n = 10$; 1.89%), Other ($n = 6$; 1.14%), and unreported ($n = 1$; 0.19%).

Procedures and instrumentation

After receiving internal review board approval (Protocol #61651), students were recruited through a research participation system in undergraduate communication courses. Potential participants were provided with a research description, as well as an estimate of the time it would take to participate (approximately 20 minutes). Because the survey was administered through the research participation system, students received course credit for completing the survey. Students who chose not to participate or were not eligible were given an alternate assignment for equivalent credit. The survey was securely hosted through the online survey engine, Qualtrics, and participants reported on the instructor of the course they attended prior to taking part in the research (Plax et al., 1986). Statement of transparency: the data used in this study were collected as part of a larger project examining the role of perceived instructor strictness on a variety of classroom outcomes[1] (Gernsbacher, 2018).

Strictness was assessed using the 12-item *Evaluative Strictness Scale*, 14-item *Regulatory Strictness Scale*, and 12-item *Interactive Strictness Scale* (Frey & Tatum, 2022). Responses were collected using Likert-type scales ranging from *Strongly Disagree* (1) to *Strongly Agree* (7), with higher scores indicating greater perceived levels of inflexible adherence to the respective dimension (i.e., greater strictness). Confirmatory factor analyses (CFAs) supporting the structural validity of each instrument are presented in Frey and Tatum (2022).

Following guidance from Levine et al. (2004), instructor verbal aggressiveness was operationalized using a 5-item version of Infante and Wigley's (1986) *Verbal Aggressiveness Scale* adapted to fit the instructional environment (Rocca, 2004). This measure consists of 5 negatively worded items ranging from *Almost Never True* (1) to *Almost Always True* (7). A CFA with robust maximum likelihood estimation via the *lavaan* package (Rosseel, 2012) in the free statistical software RStudio (Version 2023.3.0.386; Posit team, 2023) indicated good global fit: χ^2 (5) = 28.534, $p < .000$, RMSEA = .094 [90% CI: .080, .109], SRMR = .038, TLI = .910, CFI = .955. The normalized residuals also indicated good model fit at a local level (Goodboy & Kline, 2017).

Assertiveness and responsiveness were assessed using Richmond and McCroskey's (1990) *Assertiveness-Responsiveness Measure*. This 20-item scale includes 10 items related to students' perceptions of assertive behavior and 10 items related to students' perceptions of responsive behavior. Responses were collected using a five-point scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). Separate CFAs revealed poor model fit for each construct: assertiveness

($\chi2$ (35) = 447.687, p < .000, RMSEA = .149 [90% CI: .138, .161], SRMR = .117, TLI = .526, CFI = .631) and responsiveness ($\chi2$ (35) = 358.123, p < .000, RMSEA = .132 [90% CI: .122, .143], SRMR = .055, TLI = .799, CFI = .843). The normalized residuals indicated poor fit at the local level.

Means, standard deviations, reliabilities, and correlation coefficients for all measures are provided in Table 1.

Results

The correlation coefficients provided in Table 1 were used to assess relationships between (a) evaluative, (b) regulatory, and (c) interactive strictness and verbal aggressiveness (H1a-c) and socio-communicative style (assertiveness: H2a-c; responsiveness: H3a-c). Preliminary analyses ensured no violations of assumptions of normality or linearity for the strictness, assertiveness, or responsiveness variables. For verbal aggressiveness, the Shapiro-Wilk and Kolmogorov-Smirnov tests of normality were significant, alongside a skewed and leptokurtic distribution. As a result, the measure was not assumed to be normally distributed.

Thus, to test H1a-c, Spearman's rank-order correlations revealed that each subdimension across all three patterns of strictness was significantly, positively associated with verbal aggressiveness: evaluative (r_ss ranged from 0.21 to 0.44); regulatory (r_ss ranged from 0.11 to 0.41); interactive (r_ss ranged from 0.43 to 0.61). H1a-c was supported. For H2a-c, Pearson's product-moment correlations revealed that 8 of the 11 strictness subdimensions were significantly, positively associated with assertiveness: evaluative (rs ranged from 0.12 to 0.15); regulatory (rs ranged from 0.01 to 0.17); interactive (rs ranged from 0.02 to 0.17). However, relationships between the Norms ($r = 0.01$, $p = .38$), Testing ($r = 0.07$, $p = .05$), and Availability ($r = 0.02$, $p = .29$) dimensions and instructor assertiveness were not significant. H2a was supported, while H2b and H2c were partially supported. For H3a-c, Pearson's product-moment correlations demonstrated that each subdimension across all three patterns of strictness was significantly, negatively associated with instructor responsiveness: evaluative (rs ranged from −0.27 to −0.38); regulatory (rs ranged from −0.12 to −0.39); interactive (rs ranged from −0.45 to −0.48). H3a-c was supported.

Discussion

The results provide extended validity evidence for the instructor strictness scales. First, students' perceptions of evaluative, regulatory, and interactive strictness were significantly, positively associated with perceptions of verbal aggressiveness. Instructor verbal aggressiveness is generally viewed as a harmful behavior that can result in students feeling less motivated (Myers

Table 1. Descriptive statistics and correlations (one-tailed).

Variable	M	SD	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Evaluative																	
1. Standards	3.41	1.42	.764	—													
2. Rounding	4.11	1.41	.872	0.34	—												
3. Harshness	3.26	1.38	.817	0.49	0.44	—											
4. Ambiguity	2.79	1.46	.827	0.62	0.38	0.62	—										
Regulatory																	
5. Normative	2.24	1.06	.816	0.37	0.25	0.39	0.48	—									
6. Deadlines	3.61	1.50	.849	0.39	0.43	0.46	0.39	0.29	—								
7. Testing	4.52	1.71	.766	0.20	0.17	0.20	0.12	0.07*	0.25	—							
8. Technology	2.58	1.49	.881	0.30	0.24	0.35	0.40	0.52	0.27	0.16	—						
Interactive																	
9. Excuses	2.73	1.50	.902	0.43	0.37	0.48	0.54	0.52	0.47	0.15	0.41	—					
10. Rudeness	2.20	1.21	.933	0.39	0.30	0.46	0.52	0.65	0.40	0.15	0.50	0.64	—				
11. Availability	2.14	1.13	.887	0.32	0.31	0.44	0.51	0.56	0.32	0.10*	0.36	0.56	0.74	—			
Related Variables																	
12. Verbal Aggression	1.62	1.07	.927	0.26	0.21	0.36	0.44	0.41	0.28	0.11	0.36	0.43	0.61	0.52	—		
13. Assertiveness	3.38	0.58	.781	0.12	0.14	0.15	0.14	0.01*	0.10	0.07*	0.17	0.12	0.17	0.02*	0.19	—	
14. Responsiveness	4.05	0.74	.946	−0.27	−0.35	−0.36	−0.38	−0.34	−0.39	−0.12	−0.23	−0.46	−0.45	−0.48	−0.33	0.04*	—

Coefficients for verbal aggression represent Spearman's rho. All other values are Pearson correlation coefficients. All correlations are significant at $p < .01$ unless marked with an *.

& Rocca, 2001) and less satisfied (Myers & Knox, 2000). Moreover, this result holds across multiple dimensions reflecting explicit and implicit policies, including those related to grading criteria, workload standards, testing, and interpersonal treatment. Strict behaviors like removing points on assignments for not adhering to minor details, controlling how technology is used in class, and being mean to students who do not follow policies can lead students to perceive their instructors as offensive, insulting, or destructive (i.e., aggressive).

Second, significant, positive relationships were also observed between 8 of the 11 dimensions of strictness and instructor assertiveness, though effects were small. Three dimensions –Norms, Testing, and Availability – were not significantly related to perceptions of assertiveness. Said differently, when instructors enforced rules not directly stated in the syllabus, took steps to prevent cheating, or made themselves unavailable outside of class time, students did not find them to be more assertive. Since Norms and Availability were among the lowest mean strictness scores, it may be that instructors who rarely enact strictness relative to certain policies leave students more confused and hurt when inflexibility occurs. Oppositely, the Testing subdimension had the highest mean strictness score. Perhaps students recognize the prevention of cheating as standard practice across higher education, reducing the potential for harm by attributing the policy to an external source other than the instructor.

Third, the results highlight inverse relationships between all dimensions of strictness and instructor responsiveness. Instructors who contradict their own instructors or guidelines, refuse to accept late work, show no interest in helping students, or refrain from listening to students' excuses can come across as unsympathetic, callous, or coldhearted. These collective results suggest that the strictness scales are largely functioning as intended, positioning the instruments as effective tools for examining an instructor's policy enforcement strategies in the collegiate classroom. This potentially creates opportunities for extended and nuanced research into the impacts of classroom policies and norms in this context. For example, research has repeatedly demonstrated that students often react negatively to policies themselves (e.g., Finn & Ledbetter, 2014). Yet, this has primarily occurred within the context of technology policies. The instruments can extend this body of work across a wide range of explicit and implicit policies that realistically impact students' classroom experiences, including those related to grading criteria, workload standards, tests, technology, and interpersonal treatment. The strictness scales should allow researchers to investigate how the policy interacts with the instructor's subsequent enforcement (or lack thereof).

However, this study is not without limitations. First, it is wise to temper conclusions about significant – or nonsignificant – relationships between strictness and assertiveness or responsiveness given a lack of

evidence for structural validity. As suggested by Levine et al. (2006), CFAs were conducted on these measures despite evidence for previous validation. The global and local fit indices for the respective models were poor, raising concerns about what is being measured in this specific application. This could potentially serve as another explanation for both the small effect sizes and the mixed results concerning perceptions of instructor assertiveness.

The sample also included one set of students from a single college campus indicating their perceptions of strictness rather than reports of actual behavior. This is important because there may be clear differences in what students expect for classroom control and discipline across cultural, social, and ethnic groups (den Brok et al., 2002). For example, the responses for this study consisted overwhelming of White, female students and may not be generalizable to the experiences of minority voices. Future strictness research should investigate how the measure functions for cultural, ethnic, or racial minority groups, among others, by including these voices in the measure development process or testing the structural validity of the measures across diverse samples (Kelly et al., 2023).

Future research concerning strictness should also investigate the conditions whereby strictness positively impacts students' experiences. For example, psychologists studying stress and executive function in college students highlight how individual differences in a variety of cognitive control processes can inhibit academic functioning (Snyder et al., 2015). Students who are neurodivergent, stressed, or suffering from mental health issues may lack the self-regulation or decision-making skills necessary to succeed in classes where instructors are routinely flexible or unstructured in their policy enforcement. Said differently, strictness as an enforcement strategy may provide the structure that some students need to meet their academic goals.

Note

1. See https://osf.io/u4cfd/?view_only=61141c6d175c49c6a9e1cf5d91fb8339 for a more detailed statement of transparency.

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Disclosure statement

Notes on contributor

T. Kody Frey (Ph.D., University of Kentucky, 2019) is an assistant professor in the School of Information Science at the University of Kentucky. His research focuses on applied and instructional communication primarily within the context of classrooms and higher education. Specifically, his interests revolve around communicative adjustment, classroom policies and procedures, instructional technologies, and innovative assessment techniques

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