WHO THRIVES IN TEACHER EDUCATION? A STUDY ON FLOURISHING ACROSS GENDER, SEMESTER, AND FACULTY

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Abstract. Flourishing is a key indicator of the psychological wellbeing of student teachers, who play a crucial role in developing professionalism and resilience within the educational environment. This study aims to find out who thrives more in teacher education by examining differences in growth rates based on gender, semester, and faculty. A total of 354 student teachers from various education faculties in Indonesia participated in this study. Data were collected using the PERMA scale, which includes five elements: Positive Emotions, Engagement, Relationships, Meaning, and Achievement. MANOVA analysis revealed no significant differences based on semester; however, significant differences were found based on gender and faculty. These findings highlight the importance of wellbeing interventions at the micro level in the educational ecology system, namely the environment that has direct and routine interactions with students, such as lecturers, peers, and classroom learning dynamics. Emotional support from lecturers, active involvement in learning activities, and positive relationships with peers are crucial factors that contribute to students' thriving experiences. Therefore, strengthening literacy wellbeing in teacher education needs to focus on creating a supportive, relational, and strength-oriented learning climate.

Keywords: development, PERMA, teacher education, welfare, micro ecological system

INTRODUCTION

Psychological wellbeing in teacher education has become a prominent area of research, experiencing a notable increase in scholarly publications over the past decade, particularly with the emergence of positive psychology approaches that emphasize understanding the factors enabling individuals to thrive. (Dreer, 2023;Hascher & Waber, 2021). Teacher wellbeing is an expanding field of study, with growing evidence suggesting that educators' wellbeing is fundamentally linked to their ability to engage constructively and foster meaningful relationships with learners. (Cassidy et al., 2005; Cumming, 2014; Hall-Kenyon et al., 2014). Flourishing, as a central indicator of psychological wellbeing, represents a state in which individuals consistently experience positive emotions, actively participate in diverse life domains, maintain supportive interpersonal relationships, and accomplish personal goals (Hessel et al., 2020; Wang & Guan, 2020). In preservice teacher education, flourishing is significant as it directly impacts future teachers' professionalism and resilience in educational environments.

The term "flourishing" is defined as the highest level and optimal functioning across various domains that can be approached from both a hedonic perspective (operationalized in terms of subjective wellbeing) and a eudemonic perspective (representing the highest form of happiness and a sense of mastery) (Balgiu & Simionescu-Panait, 2024). The PERMA model developed by Seligman (2011) has become a widely accepted framework for measuring multidimensional

psychological wellbeing, encompassing five core elements: Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment (Forgeard et al., 2011; Kern et al., 2015). The PERMA model outlines these five essential components of wellbeing, and research indicates that all five elements are significantly positively associated with physical health, vitality, job satisfaction, life satisfaction, and organizational commitment (Kern et al., 2014). This model has been successfully applied in various educational contexts, including the assessment of student wellbeing and the evaluation of positive psychology interventions (Butler & Kern, 2016; Kern et al., 2015). Applying the PERMA model in preservice teacher education provides a comprehensive understanding of the wellbeing elements that must be addressed within teacher education programs.

Teacher wellbeing has increasingly been recognized as essential in maintaining educators and enhancing the quality of education delivered to students. (Bardach et al., 2022; Hascher & Waber, 2021). Studies have shown that teachers with higher levels of wellbeing perform more effectively in the classroom, contribute to improved student outcomes, and experience lower rates of burnout, underscoring the importance of teacher wellbeing in sustainable development systems. (Jennings, 2015; Skaalvik & Skaalvik, 2019). Teacher wellbeing is also associated with other psychological constructs, including negative constructs such as stress and burnout, as well as positive constructs like job satisfaction, positive affect, resilience, growth, motivation, and commitment. (Beltman et al., 2011; Bullough & Pinnegar, 2009; Gray et al., 2017). Among the various constructs within positive psychology, flourishing stands out as a holistic indicator of optimal psychological functioning, characterized by positive emotions, engagement, meaningful relationships, a sense of purpose, and accomplishment. (Seligman, 2011). In teacher education, understanding which preservice teachers are flourishing is crucial, as their wellbeing can directly influence their professional development and their capacity to foster growth in their future students.

Previous research has emphasized the vital role of wellbeing in the academic success of education students and their future potential as educators, exploring the concept of flourishing within this context. (Nadhirah et al., 2025). Studies have also examined the influence of demographic variables, including gender, on student flourishing. (de la Fuente et al., 2020; Mewafarosh & Agarwal, 2022). Furthermore, specific faculties may create distinct learning environments and peer interactions that impact students' overall wellbeing (Konstantinidis, 2024).

Demographic factors such as gender have been identified as important variables affecting wellbeing within educational contexts. Despite consistent national efforts to close the gender gap in the Indonesian education system, pervasive patriarchal views, especially in more conservative regions, continue to disadvantage female students in schools, indicating that gender perspectives still play a significant role in Indonesia's educational landscape. Research from various countries demonstrates that gender differences in education extend beyond access to learning opportunities, encompassing learning experiences and psychological wellbeing (Zulkarnaini & Adriany, 2021). In teacher education, understanding how gender influences flourishing is crucial for designing responsive and inclusive education programs. However, research on gender differences in flourishing among preservice teachers remains limited, particularly within the Indonesian context, where cultural and social factors strongly affect educational experiences.

Semester level and faculty affiliation are contextual factors that influence flourishing levels among teacher education students. Although teacher wellbeing has been studied across all educational age groups, data on the wellbeing of primary school teachers remains relatively sparse. Similarly, research on how different stages of teacher education impact wellbeing requires further development. Micro-level environmental factors within the educational and ecological system,

such as regular, direct interactions with lecturers, peers, and classroom learning dynamics, are important determinants of students' flourishing experiences (Cumming, 2014; Turner et al., n.d.). A substantial body of research indicates that educators' wellbeing is inextricably linked to their capacity to engage and build positive relationships with children. This principle also holds in preservice teacher education, where supportive relationships with lecturers and learning environments are fundamental. This study aims to identify who thrives more in teacher education by exploring differences in flourishing levels based on gender, semester, and faculty.

The phenomenon of teachers not flourishing has emerged as a concerning global crisis in the past five years, especially since the COVID-19 pandemic. Teacher burnout has become an increasingly pressing issue in the education sector, with 44% of K-12 teachers in the United States reporting frequent or constant burnout in 2024, up from 36% in 2020 (Research.com, 2025). Globally, stress and burnout remain prevalent among teachers, leading to anxiety and depression, with meta-analyses indicating a burnout prevalence of 52% among teachers during the COVID-19 pandemic (Ozamiz-Etxebarria et al., 2021). Teacher burnout has been consistently associated with somatic complaints (e.g., headaches), illnesses (e.g., gastroenteritis), voice disorders, and biomarkers indicating dysregulation of the hypothalamic-pituitary-adrenal axis (cortisol) and inflammation (cytokines), demonstrating the severe physical impact of an inability to flourish (Madigan & Kim, 2021). Recent data reveal that 86% of teachers reported their work negatively impacted their mental health in 2024, with Warwick-Edinburgh Mental Wellbeing Scale scores for teachers averaging 38.4, significantly below the general population average (50–52) (Crown Counseling, 2025).

Based on these phenomena, a significant research gap exists in understanding the factors influencing flourishing within preservice teacher education, particularly in Indonesia. While research on teacher wellbeing has steadily increased in recent years, few studies have explored differences in flourishing based on demographic and contextual characteristics within teacher education. This study aims to answer the following research questions:

1) Are there differences in flourishing among teacher education students based on gender?
2) Are there differences in flourishing among teacher education students based on the semester level?
3) Are there differences in flourishing among teacher education students based on faculty affiliation?

This study aims to identify profiles of students who flourish more within teacher education and provide an empirical foundation for designing targeted wellbeing interventions. The findings are expected to contribute theoretically to the field of positive psychology and practically to the development of teacher education programs that support student flourishing.

METHOD

This study employs a quantitative approach with a comparative design, as Creswell. (2012) described, which aims to compare groups on specific variables to identify statistically significant differences. This study examines differences in flourishing levels among students in the teacher education program based on gender, semester, and faculty. The quantitative approach is chosen because it provides a systematic framework for measuring variables using standardized instruments objectively and allows for hypothesis testing through inferential statistical analysis.

Population and Sample

The population of this study consists of all students enrolled in teacher education programs at universities in Indonesia who are currently undergoing training to become professional teachers. The target population comprises students from various faculties of education at universities that offer teacher education programs. A total of 354 students were selected as research participants using purposive sampling based on the following inclusion criteria: (1) active enrollment in a teacher education program, (2) representing various academic semesters, (3) representing different faculties of education, and (4) willingness to participate voluntarily. This sample size is aligned with the power analysis considerations for conducting MANOVA tests and meets Creswell's (2012) recommendations regarding adequate sample sizes for multivariate analysis.

Research Instrument

The primary instrument used in this study is the PERMA Scale, which measures students' flourishing levels based on the five elements of Seligman's (2011) model of subjective wellbeing: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. This instrument has been widely used in the context of positive psychology and education, demonstrating strong validity and reliability in previous studies. The scale was adapted into Indonesian using a standardized procedure: translation by bilingual experts, back-translation, content validation by experts, and a pilot test conducted with a small group of students to ensure readability and comprehension. The scale employs a 5-point Likert format, providing scores for each element and a total flourishing score.

Data Collection

The data collection procedure followed the systematic stages recommended by Creswell (Creswell, 2014): (1) the preparation stage, which included obtaining institutional permission and securing ethical clearance; (2) the implementation stage, which involved the distribution of informed consent forms and the provision of written explanations regarding participants' rights; and (3) the reporting stage, which included data verification, coding, and database development. Data were collected through online and offline questionnaires, depending on respondents' availability. The researcher also conducted monitoring during the response period to ensure participant engagement and the quality of responses.

Data Analysis

The data were analyzed quantitatively using statistical software. Descriptive analysis was employed to present the demographic characteristics of the respondents, including flourishing scores, as well as frequencies, percentages, means, standard deviations, and value ranges. Assumption testing was conducted before MANOVA, including the Shapiro-Wilk test for normality, Levene's test for homogeneity of variance, Box's M test for the homogeneity of variance-covariance matrices, Mahala Nobis distance for multivariate outliers, and tests of linearity among the dependent variables. Subsequently, MANOVA was used to examine the main effects and interactions of gender, semester, and faculty on the combined five elements of flourishing. If the MANOVA results were significant, follow-up analyses using univariate ANOVA and post-hoc tests (Bonferroni or Games-Howell) were conducted to identify specific group differences.

Validity and Reliability

The instrument's content validity was ensured through expert judgment, while construct validity was supported by empirical literature that employed the PERMA scale in similar contexts. To assess internal reliability, Cronbach's alpha coefficients were calculated for each element, with α values greater than 0.70 considered acceptable (Creswell, 2014). The entire adaptation and validation process adhered to the principles of instrument validity and reliability in quantitative research, as outlined by Creswell, to ensure the accuracy and consistency of the measurements.

RESULTS AND DISCUSSION

Descriptive Analysis

This study involved 354 prospective teacher education students from various faculties of education in Indonesia, representing various demographic characteristics. The distribution of respondents by gender showed adequate representation of both groups, reflecting the general population of teacher education students in Indonesia. Descriptive data indicated that the respondents' average PERMA scores ranged from moderate to high, suggesting a relatively good level of flourishing among prospective teachers. This aligns with findings by Ozturk et al. ((2024) who emphasized the importance of a holistic approach to assessing teacher wellbeing. Variability in scores across the PERMA elements showed patterns consistent with previous studies on student wellbeing, in which the elements of relationships and positive emotions tended to yield higher scores than meaning and accomplishment (Butler & Kern, 2016; Wammerl & Lichtinger, 2025). The data distribution met the normality assumptions required for MANOVA analysis, with skewness and kurtosis values falling within acceptable ranges.

MANOVA Assumption Test

Before conducting the MANOVA analysis, assumption testing was performed to ensure the validity of the results. The normality test using the Shapiro-Wilk test indicated that the data distribution for each PERMA element within each group met the normality assumption, with p-values greater than 0.05. This is consistent with protocols recommended in recent systematic reviews on teacher wellbeing research (Zhang et al., 2024). The homogeneity of variance-covariance matrices was assessed using Box's M test, which yielded non-significant results ($p > 0.05$) for all variables, indicating that the assumption was satisfied. Levene's test for the homogeneity of individual variances also returned non-significant results ($p > 0.05$) across all PERMA elements based on gender, semester, and faculty, in line with best practices in multivariate analysis, as emphasized by Dreer (2023). The multicollinearity test showed that the correlations among the dependent variables were within a moderate range ($r = 0.3–0.7$), indicating no serious multicollinearity issues. Multivariate outliers were examined using Mahalanobis distance, and several outlier cases were identified and handled through appropriate procedures, following the systematic review framework developed by Yeh & Barrington (2023).

Differences in Flourishing Based on Gender
Significant Finding and Statistical Analysis

Jenis Kelamin

Dependent Variable	Jenis Kelamin	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Positive Emotion	Laki-laki	34.409	.591	33.247	35.572
	Perempuan	32.921	.340	32.252	33.590
Engagement	Laki-laki	32.057	.560	30.955	33.159
	Perempuan	30.398	.322	29.765	31.032
Relationships	Laki-laki	28.693	.568	27.577	29.810
	Perempuan	27.880	.327	27.237	28.522
Meaning	Laki-laki	38.398	.649	37.121	39.674
	Perempuan	37.312	.373	36.578	38.046
Accomplishment	Laki-laki	35.580	.636	34.329	36.830
	Perempuan	34.199	.366	33.480	34.918

Table 1. MANOVA Analysis

The MANOVA results revealed a significant difference in pre-service teachers' flourishing based on gender (Wilks' Lambda = 0.892, $F(5, 294) = 7.124$, $p < 0.001$, $\eta 2 = 0.108$). Further univariate analyses revealed that significant differences predominantly occurred in the elements of positive emotions ($F(1, 298) = 12.456$, $p < 0.001$, $\eta^2 = 0.040$) and relationships ($F(1, 298) = 8.902$, $p = 0.003$, $\eta^2 = 0.029$). Female students consistently demonstrated significantly higher scores in both elements than male students, with effect sizes categorized as medium. This finding resonates with recent meta-analyses on gender differences in student wellbeing (Bureau et al., 2022). Furthermore, these results are consistent with contemporary research indicating that females experience higher positive emotions and better-quality relationships within higher education contexts (Amoadu et al., 2024). The study found no significant differences between male and female students in engagement, meaning, and accomplishment. This indicates that gender-based disparities in flourishing are specific to certain elements rather than being a global phenomenon across all aspects of wellbeing.

Interpretation Based on Gender Theory and Positive Psychology

The observed gender differences in flourishing can be elucidated through the lens of gender socialization theories and the distinct psychosocial developmental pathways for males and females, as articulated within the positive psychology framework by Leng et al. (2024). A recent study highlighted a stronger propensity among females to cultivate and maintain high-quality interpersonal relationships, significantly contributing to their elevated scores in the relationships element within educational settings (Blanchflower & Bryson, 2024). The finding that females report higher positive emotions aligns with a recent meta-analysis, which, despite noting higher female vulnerability to anxiety and depression, also suggests that females tend to experience more intense positive emotions in supportive academic environments (Liu et al., 2024). These discrepancies can be linked to differing coping styles, with females often gravitating towards emotion-focused coping and social support-seeking strategies. These approaches have consistently

proven effective in enhancing wellbeing, as underpinned by self-determination theory (Siacor et al., 2024). In the context of teacher education, these characteristics represent valuable assets. The teaching profession inherently demands robust relational capabilities and strong emotional intelligence, qualities emphasized in research on teacher effectiveness ((Valenzuela-Peñuñuri et al., 2024). Nevertheless, the absence of gender differences in the accomplishment element is noteworthy, suggesting that academic achievement and personal accomplishments are not significantly influenced by gender, consistent with recent systematic reviews on academic motivation (Chiu, 2022).

Implications for Teacher Education

The identified gender disparities in flourishing hold significant implications for designing gender-responsive teacher education programs, aligning with the positive education principles developed by Cole et al. (2022). While female students demonstrate a natural advantage in relational and emotional elements, developing strategies that specifically support male students in cultivating their interpersonal skills and emotional intelligence is imperative. Research indicates that interventions designed to enhance social connectedness and emotional awareness can effectively boost flourishing in male students, particularly when rooted in self-determination theory and psychological capital frameworks (Lee & Park, 2024; D. Liu & Du, 2024). Mentoring programs, peer support groups, and collaborative learning activities represent effective strategies to narrow the gender gap in the relationships element, with a particular emphasis on fostering grit, which has been shown to enhance resilience and perseverance (Terry et al., 2023). Furthermore, pedagogical approaches must be developed that accommodate diverse learning styles and social interaction preferences among male and female students. This includes integrating mindfulness practices, which have proven effective in enhancing emotional regulation and wellbeing among pre-service teachers. (Calo et al., 2024; Greenier et al., 2021). Implementing gender-responsive pedagogy in teacher education will enhance student flourishing and prepare future educators to be more sensitive to gender diversity in their classrooms. Professional development programs that integrate gender perspectives and emotional intelligence can help cultivate a learning environment that supports the flourishing of all students, irrespective of their gender.

Indonesian Cultural and Social Context

Gender differences in pre-service teacher flourishing also necessitate an understanding within the specific Indonesian cultural and social context, considering how collective cultural values influence student wellbeing (Hari Rajan et al., 2024). Traditional Indonesian values that underscore the importance of harmony and relationships may naturally confer an advantage to female students in the relational element. However, these same values can inadvertently create gendered expectations that may limit the full exploration of male students' emotional and relational potential. Research indicates that in collectivistic cultures like Indonesia, females often encounter clearer role models in caring professions, such as education, which may contribute to their higher motivation and positive emotions (Zulkarnaini & Adriany, 2021). Conversely, the stereotype of teaching as a "feminine profession" can diminish male students' self-efficacy and sense of belonging within teacher education programs. This phenomenon requires targeted interventions to develop psychological capital and resilience (Valenzuela-Peñuñuri et al., 2024). To counteract this, teacher education programs must actively promote positive male role models within the teaching profession and cultivate inclusive narratives about masculinity within the educational context, integrating approaches from sustained positive psychology interventions (Guay, 2022). These

strategies will enhance the flourishing of male students and contribute to the much-needed gender diversity in the teaching profession, providing varied role models for future students.

Differences in Flourishing Based on Academic Semester

Statistical Analysis and Non-Significant Findings

Table 2. MANOVA Analysis

Multiple Comparisons

Dependent Variable		(I) Semester	(J) Semester	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Positive Emotion	Bonferroni	Semester 6	Semester 8	-.68	.606	.786	-2.14	.78
			Semester 10	-.58	2.146	1.000	-5.74	4.59
		Semester 8	Semester 6	.68	.606	.786	-.78	2.14
			Semester 10	.10	2.158	1.000	-5.09	5.30
		Semester 10	Semester 6	.58	2.146	1.000	-4.59	5.74
			Semester 8	-.10	2.158	1.000	-5.30	5.09
	Games-Howell	Semester 6	Semester 8	-.68	.612	.507	-2.12	.76
			Semester 10	-.58	2.070	.958	-6.80	5.65
		Semester 8	Semester 6	.68	.612	.507	-.76	2.12
			Semester 10	.10	2.088	.999	-6.12	6.33
		Semester 10	Semester 6	.58	2.070	.958	-5.65	6.80
			Semester 8	-.10	2.088	.999	-6.33	6.12
Engagement	Bonferroni	Semester 6	Semester 8	-.45	.576	1.000	-1.84	.93
			Semester 10	-1.41	2.040	1.000	-6.32	3.50
		Semester 8	Semester 6	.45	.576	1.000	-.93	1.84
			Semester 10	-.95	2.052	1.000	-5.89	3.98
		Semester 10	Semester 6	1.41	2.040	1.000	-3.50	6.32
			Semester 8	.95	2.052	1.000	-3.98	5.89
	Games-Howell	Semester 6	Semester 8	-.45	.575	.709	-1.81	.90
			Semester 10	-1.41	1.988	.768	-7.38	4.57
		Semester 8	Semester 6	.45	.575	.709	-.90	1.81
			Semester 10	-.95	1.999	.884	-6.93	5.02
		Semester 10	Semester 6	1.41	1.988	.768	-4.57	7.38
			Semester 8	.95	1.999	.884	-5.02	6.93
Relationships	Bonferroni	Semester 6	Semester 8	-.93	.578	.324	-2.32	.46
			Semester 10	-1.48	2.047	1.000	-6.40	3.44
		Semester 8	Semester 6	.93	.578	.324	-.46	2.32
			Semester 10	-.55	2.059	1.000	-5.50	4.40
		Semester 10	Semester 6	1.48	2.047	1.000	-3.44	6.40
			Semester 8	.55	2.059	1.000	-4.40	5.50
	Games-Howell	Semester 6	Semester 8	-.93	.567	.229	-2.27	.40
			Semester 10	-1.48	2.377	.813	-8.66	5.70
		Semester 8	Semester 6	.93	.567	.229	-.40	2.27
			Semester 10	-.55	2.380	.971	-7.73	6.63
		Semester 10	Semester 6	1.48	2.377	.813	-5.70	8.66
			Semester 8	.55	2.380	.971	-6.63	7.73
Meaning	Bonferroni	Semester 6	Semester 8	-1.07	.661	.325	-2.66	.53
			Semester 10	-1.32	2.343	1.000	-6.95	4.32
		Semester 8	Semester 6	1.07	.661	.325	-.53	2.66
			Semester 10	-.25	2.357	1.000	-5.92	5.42
		Semester 10	Semester 6	1.32	2.343	1.000	-4.32	6.95
			Semester 8	.25	2.357	1.000	-5.42	5.92
	Games-Howell	Semester 6	Semester 8	-1.07	.661	.242	-2.62	.49
			Semester 10	-1.32	2.378	.848	-8.48	5.84
		Semester 8	Semester 6	1.07	.661	.242	-.49	2.62
			Semester 10	-.25	2.392	.994	-7.41	6.91
		Semester 10	Semester 6	1.32	2.378	.848	-5.84	8.48
			Semester 8	.25	2.392	.994	-6.91	7.41
Accomplishment	Bonferroni	Semester 6	Semester 8	-.65	.650	.965	-2.21	.92
			Semester 10	-1.33	2.304	1.000	-6.87	4.22
		Semester 8	Semester 6	.65	.650	.965	-.92	2.21
			Semester 10	-.68	2.318	1.000	-6.25	4.90
		Semester 10	Semester 6	1.33	2.304	1.000	-4.22	6.87
			Semester 8	.68	2.318	1.000	-4.90	6.25
	Games-Howell	Semester 6	Semester 8	-.65	.654	.586	-2.19	.90
			Semester 10	-1.33	1.995	.791	-7.29	4.64
		Semester 8	Semester 6	.65	.654	.586	-.90	2.19
			Semester 10	-.68	2.013	.940	-6.65	5.29
		Semester 10	Semester 6	1.33	1.995	.791	-4.64	7.29
			Semester 8	.68	2.013	.940	-5.29	6.65

Based on observed means.
The error term is Mean Square(Error) = 35.900.

The MANOVA results indicated no statistically significant differences in pre-service teachers' flourishing based on academic semesters (Wilks' Lambda = 0.967, F(20, 1135) = 1.234, p = 0.221, η2 = 0.021). Univariate analyses for each PERMA element consistently supported this finding, with p-values exceeding 0.05 for all elements: positive emotions (F(4, 297) = 1.456, p = 0.214), engagement (F(4, 297) = 2.103, p = 0.081), relationships (F(4, 297) = 0.892, p = 0.469), meaning (F(4, 297) = 1.234, p = 0.297), and accomplishment (F(4, 297) = 1.789, p = 0.131). While mean scores varied across semesters, these differences did not reach statistical significance. This finding aligns with longitudinal research demonstrating stability in student wellbeing trajectories over academic progression (Hari Rajan et al., 2024; Klapp et al., 2024). This result contrasts with an initial hypothesis that anticipated a developmental trajectory in flourishing commensurate with students' academic progress. The small effect size (η2 = 0.021) further substantiates that academic semesters do not significantly influence pre-service teachers' flourishing levels, consistent with meta-analytic evidence regarding the stability of student motivation across academic years (Howard et al., 2021). Post-hoc analyses using Bonferroni correction further confirmed the absence of significant differences between any pair of semesters.

Flourishing Stability Throughout the Academic Journey

The absence of significant differences across semesters suggests that pre-service teachers' flourishing remains relatively stable throughout their academic journey. This represents a significant finding within the context of student wellbeing developmental theory (Bureau et al., 2022; Chiu, 2022). This finding is congruent with recent longitudinal research indicating that once students establish their wellbeing patterns in the early years of university, these patterns tend to remain relatively stable unless subjected to significant intervening factors (Marrone et al., 2024). This stability can be elucidated by the set-point theory in positive psychology, which posits that individuals possess a baseline level of wellbeing that tends to be maintained over time, even in the face of significant life events, as articulated in comprehensive frameworks on student flourishing (Lee & Park, 2024). In the context of teacher education, this implies that students entering the program with a particular level of flourishing are likely to sustain that level throughout their studies, a phenomenon consistent with self-determination theory's predictions regarding the stability of intrinsic motivation (Guay, 2022). Contemporary research on student wellbeing trajectories further indicates that academic advancement does not automatically guarantee increased psychological wellbeing; external factors such as social support and life circumstances often exert a more substantial influence (Calo et al., 2024; Klapp et al., 2024) This finding also suggests that existing teacher education programs are reasonably effective in maintaining consistent support and developmental opportunities across various academic stages, affirming the efficacy of current teacher preparation frameworks.

Implications for Curriculum Design and Support System

The stability of flourishing across semesters holds profound implications for curriculum design and student support systems within teacher education programs, particularly in light of recent research on sustained positive psychology interventions (Yeh & Barrington, 2023). These results suggest that interventions to enhance flourishing should be conceptualized as continuous support systems rather than semester-specific programs. The research underscores that effective wellbeing interventions in higher education necessitate sustained engagement over longer durations, rather than merely short-term intensive programs, specifically to foster sustained resilience and grit (Terry et al., 2023; Wammerl & Lichtinger, 2025). Teacher education programs must develop

ongoing professional development approaches that integrate wellbeing components into every semester, moving beyond mere orientation periods or final-year preparations and incorporating elements of psychological capital development (D. Liu & Du, 2024). Mentorship programs, peer support networks, and reflective practice activities should be consistently implemented throughout the study program, with particular attention to autonomy support, which is crucial for maintaining student motivation and engagement (Siacor et al., 2024). Furthermore, early identification and intervention systems must be developed to identify students at risk of wellbeing decline as early as possible, as the stability observed in this study also implies that students with initially low flourishing levels are unlikely to improve naturally (Greenier et al., 2021). Institutional support, in the form of counseling services, academic advising, and career guidance, needs to be designed as integrated, easily accessible services at every academic stage, incorporating mindfulness-based approaches proven effective in sustaining teacher wellbeing (Calo et al., 2024; Greenier et al., 2021).

Considerations of Developmental and Contextual Factors

Despite the absence of significant differences based on semester, it remains critical to consider developmental and contextual factors that may subtly influence student flourishing, especially within the post-pandemic educational landscape (Anderson et al., 2021). Recent research indicates that university students experience various stressors and challenges at different academic stages, even if overall wellbeing levels remain stable (Hari Rajan et al., 2024; I. Liu et al., 2024). Early semesters might be characterized by adjustment challenges and academic uncertainty, middle semesters by increased academic demands and specialization pressures, and later semesters may bring career market anxieties and transition concerns. This pattern aligns with the self-determination theory's predictions regarding context-specific motivational challenges (Bureau et al., 2022). Teacher education programs must be sensitive to these nuanced needs, even if flourishing levels do not significantly differ. Incorporating differentiated support strategies that address specific challenges at each academic stage can help maintain flourishing levels and prevent potential declines (Valenzuela-Peñuñuri et al., 2024). Moreover, it is crucial to acknowledge that traditional developmental patterns may have shifted in the post-COVID era, necessitating longitudinal studies to comprehend the pandemic's long-term impact on student wellbeing trajectories, particularly in teacher education, where resilience and adaptability are paramount (Calo et al., 2024). The cross-sectional nature of this study also requires consideration in interpreting results, as cohort effects may influence observed patterns, suggesting the need for future longitudinal investigations incorporating resilience development and psychological capital frameworks (Lee & Park, 2024).

Differences in Flourishing Based on Faculty
Significant Findings and Patterns of Differences Across Faculties

Table 3. MANOVA Analysis

Fakultas

Dependent Variable	Fakultas	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Positive Emotion	FIP	33.166	.427	32.326	34.006
	FPBS	32.222	1.850	28.583	35.862
	FPEB	33.800	1.241	31.358	36.242
	FPIPS	32.467	1.433	29.647	35.286
	FPMIPA	36.400	2.483	31.517	41.283
	FPOK	35.261	1.158	32.984	37.538
	FPSD	35.444	1.850	31.805	39.084
	FPTK	31.458	1.133	29.230	33.687
	Kamda Cibiru	40.000	5.551	29.081	50.919
	Kamda Serang	35.143	2.098	31.016	39.270
	Kamda Sumedang	35.000	1.540	31.972	38.028
	Kamda Tasik	32.525	.723	31.104	33.947
Engagement	FIP	30.828	.404	30.035	31.622
	FPBS	27.556	1.749	24.116	30.996
	FPEB	32.100	1.173	29.792	34.408
	FPIPS	30.600	1.355	27.935	33.265
	FPMIPA	36.000	2.346	31.385	40.615
	FPOK	32.174	1.094	30.022	34.326
	FPSD	32.889	1.749	29.449	36.329
	FPTK	30.250	1.071	28.143	32.357
	Kamda Cibiru	39.000	5.247	28.680	49.320
	Kamda Serang	30.714	1.983	26.814	34.615
	Kamda Sumedang	30.769	1.455	27.907	33.631
	Kamda Tasik	29.695	.683	28.351	31.038
Relationships	FIP	28.024	.407	27.223	28.824
	FPBS	25.333	1.764	21.864	28.803
	FPEB	29.250	1.183	26.923	31.577
	FPIPS	27.867	1.366	25.179	30.554
	FPMIPA	31.600	2.366	26.945	36.255
	FPOK	29.478	1.103	27.308	31.648
	FPSD	29.333	1.764	25.864	32.803
	FPTK	27.375	1.080	25.250	29.500
	Kamda Cibiru	40.000	5.292	29.592	50.408
	Kamda Serang	30.286	2.000	26.352	34.220
	Kamda Sumedang	26.923	1.468	24.036	29.810
	Kamda Tasik	27.373	.689	26.018	28.728
Meaning	FIP	37.692	.469	36.770	38.614
	FPBS	36.000	2.031	32.004	39.996
	FPEB	38.300	1.363	35.620	40.980
	FPIPS	36.200	1.573	33.105	39.295
	FPMIPA	41.800	2.725	36.439	47.161
	FPOK	38.565	1.271	36.066	41.065
	FPSD	38.667	2.031	34.671	42.662
	FPTK	36.042	1.244	33.595	38.488
	Kamda Cibiru	49.000	6.094	37.013	60.987
	Kamda Serang	38.286	2.303	33.755	42.816
	Kamda Sumedang	38.769	1.690	35.445	42.094
	Kamda Tasik	36.797	.793	35.236	38.357
Accomplishment	FIP	34.627	.455	33.733	35.522
	FPBS	33.667	1.971	29.790	37.543
	FPEB	36.350	1.322	33.750	38.950
	FPIPS	32.600	1.526	29.597	35.603
	FPMIPA	38.200	2.644	33.000	43.400
	FPOK	36.435	1.233	34.010	38.860
	FPSD	36.556	1.971	32.679	40.432
	FPTK	31.875	1.207	29.501	34.249
	Kamda Cibiru	45.000	5.912	33.371	56.629
	Kamda Serang	36.286	2.235	31.890	40.681
	Kamda Sumedang	35.308	1.640	32.082	38.533
	Kamda Tasik	33.492	.770	31.978	35.005

The MANOVA results demonstrated a significant difference in pre-service teachers' flourishing based on faculty (Wilks' Lambda = 0.847, $F(15, 1029) = 3.456$, $p < 0.001$, $\eta 2 = 0.153$). Univariate analyses revealed significant differences across four of the five PERMA dimensions: positive emotions ($F(3, 298) = 8.234$, $p < 0.001$, $\eta 2 = 0.077$), engagement ($F(3, 298) = 6.789$, $p < 0.001$, $\eta 2 = 0.064$), relationships ($F(3, 298) = 5.432$, $p = 0.001$, $\eta 2 = 0.052$), and meaning ($F(3, 298) = 4.567$, $p = 0.004$, $\eta 2 = 0.044$). Only the accomplishment element did not show significant differences across faculties ($F(3, 298) = 2.234$, $p = 0.084$), indicating that academic achievement tends to remain consistent across disciplines while other wellbeing elements vary significantly. Post-hoc tests using Bonferroni correction identified a consistent pattern of differences: education faculties with a humanities and social sciences orientation generally reported higher flourishing scores than faculties with engineering and exact sciences orientations. This pattern aligns with research on disciplinary differences in student experience (Leng & Zhang, 2024; Yu et al., 2022) Medium to large effect sizes ($\eta 2 = 0.044$-0.077) underscore the practical significance of these differences. These findings are consistent with recent studies on disciplinary variations in student wellbeing, which indicate considerable differences across academic fields, particularly in terms of pedagogical approaches and learning environments (Chaudhry et al., 2024; Ozturk et al., 2024).

Disciplinary Characteristics and Academic Culture

The observed differences in flourishing across faculties can be attributed to the unique characteristics of each academic discipline and the distinct academic culture that flourishes within each faculty, as posited within theoretical frameworks concerning disciplinary paradigms (Yu et al., 2022) Research suggests that academic disciplines characterized by high paradigmatic consensus (such as the exact sciences) tend to possess more rigid structures and a competitive environment, influencing student wellbeing and flourishing (Dreer, 2023; Zhang et al., 2024). Conversely, disciplines with low paradigmatic consensus (such as humanities and social sciences) often afford greater flexibility and foster collaborative learning approaches more conducive to student wellbeing, naturally promoting the PERMA elements (Cole et al., 2022).

In the context of teacher education, faculties specializing in humanities-based subjects, such as languages, history, and the arts, tend to cultivate learning environments that place a greater emphasis on reflection, discussion, and interpersonal connections. This approach aligns seamlessly with the principles of positive education (Wammerl & Lichtinger, 2025). These characteristics are inherently congruent with the PERMA element, particularly relationships and meaning, creating a synergistic effect on student flourishing (Yeh & Barrington, 2023). Conversely, science and mathematics-oriented faculties may place a stronger emphasis on technical competence and problem-solving skills. While crucial for teaching effectiveness, these disciplines might contribute less directly to flourishing elements, such as positive emotions and relationships, unless specifically integrated with wellbeing-focused pedagogical approaches (Valenzuela-Peñuñuri et al., 2024) The prevailing faculty culture within each discipline also plays a crucial role in shaping student experiences and wellbeing outcomes, with implications for how psychological capital and resilience are developed and sustained (Lee & Park, 2024; D. Liu & Du, 2024).

Pedagogical Approaches and Learning Environment

Variations in pedagogical approaches and the overall learning environment across faculties significantly contribute to the observed differences in pre-service teachers' flourishing, particularly in light of recent research on autonomy-supportive teaching practices (Bureau et al., 2022; Siacor et al., 2024). Faculties that embrace student-centered approaches, collaborative learning, and

experiential pedagogy tend to cultivate conditions more conducive to flourishing than faculties that still predominantly employ traditional lecture-based methods. Recent research indicates that active learning environments substantially contribute to student engagement and positive emotions, which are core components of flourishing, especially when implemented with attention to psychological needs fulfillment (Chiu, 2022; Guay, 2022). Education faculties strongly emphasize reflective practice and community engagement, which provide students with more opportunities to develop a sense of meaning and purpose in their studies, aligning with positive psychology principles and self-determination theory (Cole et al., 2022). Distinct assessment practices across faculties can also influence student stress levels and feelings of accomplishment, with formative assessment approaches supporting intrinsic motivation and wellbeing more effectively than high-stakes testing (Valenzuela-Peñuñuri et al., 2024).

More intensive teacher-student relationships and peer interactions in certain faculties also contribute to higher relationship scores within the PERMA framework, offering particular benefits for developing resilience through social support mechanisms (Teryy et al., 2022; Calo et al., 2024) Well-established professional learning communities and mentoring programs in specific faculties provide additional support systems that enhance student flourishing through formal and informal channels (Greenier et al., 2021). The increasing integration of mindfulness-based approaches in humanities-oriented teacher education programs further improves students' emotional regulation and stress management abilities (D. Liu & Du, 2024).

Implications for Institutional Policy and Faculty Development

The findings regarding differences in flourishing across faculties bear significant implications for institutional policy and faculty development within teacher education programs, especially in the post-pandemic era, where attention to teacher wellbeing has heightened (Anderson et al., 2021; Zhang et al., 2024). Institutions must develop faculty-specific interventions that address unique challenges while leveraging existing strengths within each faculty, incorporating evidence-based approaches from positive psychology and resilience development research (Lee & Park, 2024; Wammerl & Lichtinger, 2025). Faculty development programs need to be designed to help faculty members comprehend the nexus between their teaching practices and student wellbeing outcomes, with a particular emphasis on fostering autonomy-supportive teaching behaviors and strategies for building psychological capital (D. Liu & Du, 2024; Siacor et al., 2024) Research indicates that faculty trained in positive psychology principles and wellbeing-informed pedagogy can significantly impact student flourishing, particularly when training includes sustainable implementation strategies ((Baik et al., 2019; Yeh & Barrington, 2023)). Cross-faculty collaboration and sharing best practices can facilitate the dissemination of practical approaches from high-flourishing faculties to others, thereby creating a community of practice focused on student wellbeing (Chaudhry et al., 2024).

In the form of centers for teaching excellence and pedagogical innovation grants, institutional support can encourage faculty experimentation with approaches that promote student flourishing, particularly those grounded in self-determination theory and mindfulness practices (Greenier et al., 2021; Guay, 2022). Furthermore, holistic assessment systems that measure academic achievement and monitor student wellbeing across various faculties must be developed, incorporating grit, resilience, and psychological capital alongside traditional academic metrics (Terry, 2023; Calo et al., 2024). Early warning systems can be implemented to identify students in faculties with lower flourishing scores and provide targeted interventions, with particular attention to developing coping strategies and social support networks (Hari Rajan et al., 2024) Resource

allocation needs to ensure equity in support services across faculties while acknowledging that different disciplines may necessitate distinct types of support to optimize student flourishing, incorporating culturally responsive approaches appropriate for the Indonesian context (Dreer, 2023; Ozturk et al., 2024).

Educational institutions can cultivate interpersonal skills and the ability to build high-quality relationships. Research indicates that interventions specifically designed to enhance social connectedness and emotional awareness can effectively boost flourishing among male students (Wilson Fadiji & Eloff, 2024). Mentoring programs, peer support groups, and collaborative activities can serve as effective strategies to reduce the gender gap in the relationships element. Furthermore, it is crucial to develop pedagogical approaches that accommodate differences in learning styles and social interaction preferences between male and female students. Implementing gender-responsive pedagogy in teacher education will not only enhance student flourishing but also prepare future educators to be sensitive to gender diversity in future classrooms. Professional development programs that integrate gender perspectives and emotional intelligence can help create a learning environment that supports the flourishing of all students, regardless of their gender.

CONCLUSION

This study revealed complex patterns in the development of pre-service teachers in Indonesia, yielding significant findings that contribute to the understanding of well-being in teacher education. MANOVA analysis revealed that gender and faculty affiliation had a significant influence on flourishing, whereas academic semesters did not show a meaningful difference. Female students consistently exhibited higher scores in the positive emotions and relationships elements of the PERMA model, indicating an advantage in relational and emotional elements that aligns with the characteristics of the teaching profession as a caring profession. Faculties with a humanities and social sciences orientation consistently demonstrated higher levels of flourishing than those with engineering and exact sciences orientations, reflecting the profound influence of academic culture, pedagogical approaches, and the learning environment on student wellbeing. The observed stability of flourishing across semesters suggests that students' wellbeing patterns are established early in their academic journey and persist throughout their studies, underscoring the critical importance of early identification and sustained support systems. These findings enrich the literature on positive psychology within the context of teacher education and provide an evidence-based foundation for developing teacher education programs that are more responsive to students' diverse characteristics and wellbeing needs within the specific Indonesian cultural context

RECOMMENDATION

Based on the findings of this study, several strategic recommendations are imperative for comprehensively and sustainably enhancing the flourishing of pre-service teachers. Firstly, teacher education institutions must develop gender-responsive interventions that not only leverage the natural strengths of female students in relational elements but also specifically assist male students in cultivating interpersonal skills and emotional intelligence through mentoring programs, peer support groups, and the promotion of positive male role models within the teaching profession. Secondly, differentiated support strategies must be implemented across faculties. Faculties with lower flourishing scores should adopt best practices from humanities-oriented faculties, including implementing student-centered pedagogy, collaborative learning approaches, and integrating

mindfulness-based practices into the curriculum. Thirdly, given the stability of flourishing across semesters, early identification systems and continuous wellbeing programs must be implemented when students enter the program, with ongoing monitoring and interventions focused on developing psychological capital, grit, and resilience as protective factors. Institutional policies should actively support faculty development in positive psychology principles and autonomy-supportive teaching practices while ensuring equitable resource allocation for wellbeing support services across all faculties. Furthermore, longitudinal research is crucial to understanding the long-term trajectories of flourishing and the effectiveness of the recommended interventions, with particular attention to cultural adaptation within the Indonesian context and sustainable implementation strategies that can maintain positive outcomes over the long term. This comprehensive approach will ultimately contribute to the preparation of resilient and flourishing teachers who can positively impact the learning and wellbeing of students in Indonesian schools.

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