

WELL-BEING AND ACADEMIC ACHIEVEMENT OF STUDENTS: THE ROLE OF MINDFULNESS

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Abstract

Besides academic achievement, well-being of students is highly important for both their academic and general life. Although some current research showed the role of mindfulness in general flourishing, the research on the role of mindfulness in academic flow and academic flourishing is limited, while the role of mindfulness for students' achievement is inconclusive. Therefore, this study is focused on understanding the role of specific facets of dispositional mindfulness in students' academic achievement assessed as grade point average and the students' well-being indexed as academic flow, academic flourishing, and general flourishing. The sample consisted of 135 university students at the Faculty of Teacher Education in Zagreb studying preschool education (all female, 22 years on average). Participants completed several questionnaires: the Five-Facet Mindfulness Questionnaire, the Swedish Flow Proneness Questionnaire adapted for assessing academic flow, the Academic Flourishing Scale, and the Flourishing Scale. The correlation analysis showed that of the five facets of mindfulness, only acting with awareness was associated ($r = 0.23, p < 0.01$) with students' higher academic achievement. Regression analyses showed that facets of mindfulness explained 24% of academic flow with describing ($\beta = 0.22, p < 0.05$) and acting with awareness ($\beta = 0.35, p < 0.001$) being significant predictors, 34% of general flourishing with describing ($\beta = 0.21, p < 0.05$), acting with awareness ($\beta = 0.30, p < 0.001$) and non-reactivity to inner experience ($\beta = 0.24, p < 0.001$) being significant predictors and 14% of academic flourishing with acting with awareness ($\beta = 0.34, p < 0.001$) being a significant predictor. The study results contribute to the limited literature on the role of dispositional mindfulness for students' academic achievement as well as elucidate which specific facets of mindfulness are important for well-being of students. In addition to the theoretical contribution, the results also have practical implications suggesting the great value of practising mindfulness for sake of students' academic achievement, optimal functioning, and well-being.

Keywords: *Academic achievement, flourishing, flow, mindfulness, well-being.*

1. Introduction

Mindfulness is a psychological process of purposely self-regulating attention in order to bring a quality of non-judgemental awareness to present-moment experience (Bishop et al., 2004). As a psychological construct mindfulness has been studied both as a state cultivated through meditation practice and as a disposition that naturally varies between individuals (Baer et al., 2006). Previous research found that dispositional mindfulness encompasses specific facets operationalized by Five Facets Mindfulness Questionnaire (FFMQ; Baer et al., 2006): observing (noticing internal and external experiences), describing (labelling internal experiences with words), acting with awareness (focusing attention to present-moment activities), non-judging of inner experience (taking a non-evaluative stance toward thoughts and feelings), and non-reactivity to inner experience (allowing experiences to come and go without reacting in an effort to change them). Higher dispositional mindfulness as assessed by FFMQ is related to better performance in various settings including academic settings (Napora, 2013; Teodorczuk, 2013), but also with higher well-being (Ljubin Golub & Gajšek, 2022b; MacDonald & Baxter, 2017). However, it is unclear which specific facets are the most important in explaining academic-related outcomes such as academic achievement and students' well-being.

Previous studies found positive relationship of overall dispositional mindfulness and academic achievement (e.g., Elphinstone et al., 2019). However, only a few studies investigated the relationship between facets of dispositional mindfulness and academic achievement (McBride & Greeson, 2021; Napora, 2013; Teodorczuk, 2013), but the inconsistency of the results doesn't suffice for any concrete

conclusions. For example, although acting with awareness was most consistently related to students' achievement (Napora, 2013; Teodorczuk, 2013), the study of McBride and Greeson (2021) found that none of the facets were associated with achievement. Hence, the relationship between academic achievement and specific facets of dispositional mindfulness requires more research.

Dispositional mindfulness has also been positively related to various indicators of students' positive functioning and well-being, such as flow (Ljubin Golub & Gajšek, 2022a) and flourishing (e.g., MacDonald & Baxter, 2017). Flow is an optimal and highly enjoyable state of effortless, focused attention and absorption in present-moment activity (Csikszentmihalyi, 1975). Earlier studies found that higher dispositional mindfulness enhances propensity to experience flow in various activities (e.g., Cathcart et al., 2014) including academic activities such as learning, preparing seminars etc. (e.g., Ljubin Golub & Gajšek, 2022a). Recent studies have found that both overall dispositional mindfulness positively relates to academic flow in students majoring in various subjects (Ljubin Golub & Gajšek 2022a), and some of mindfulness specific facets (i.e., describing, acting with awareness and non-reactivity) significantly contribute to academic flow in students majoring in teacher education (Ljubin Golub & Gajšek 2022b). However, the studies on the relationship between academic flow and mindfulness are limited and more research is required.

Flourishing reflects both feeling good and functioning well (Diener et al., 2010). Studies showed that overall dispositional mindfulness (Akin & Akin, 2015) as well as all its facets are positively related to students' flourishing (MacDonald & Baxter, 2017). However, previous studies focused on general flourishing while the research of mindfulness and flourishing in the academic domain (i.e., academic flourishing) is lacking. Only one study indicated positive bivariate association of overall dispositional mindfulness and academic flourishing (Ljubin Golub & Gajšek, 2022a), and one study found bivariate relationship between mindfulness facets (i.e., describing, acting with awareness and non-reactivity) and academic flourishing (Ljubin Golub & Gajšek, 2022b). Taken all together, it seems that dispositional mindfulness has an important and positive role in students' well-being while it is not yet clear which of its facets are most relevant for explaining students' both general and academic flourishing.

2. Objectives

Based on the abovementioned, this study addressed two main research questions. First research question is to examine what specific facets of dispositional mindfulness are most relevant for students' academic achievement. Second research question is to examine what specific facets of dispositional mindfulness are most relevant for students' experiences of academic flow, general flourishing, and academic flourishing.

3. Method

3.1. Participants and procedure

In this exploratory, correlational-type study, the convenience sample consisted of 135 university students (all female, $M = 22.2$ years $SD = 1.47$) majoring in preschool education at the Faculty of Teacher Education in Zagreb. Questionnaires were administered during the regular academic semester. Participants filled in questionnaires anonymously and voluntarily.

3.2. Instruments

The Five-Facets Mindfulness Questionnaire (Baer et al., 2006) was used to assess individual dispositional mindfulness facets: observing (e.g., *I pay attention to how my emotions affect my thoughts and behaviour*), describing (e.g., *I'm good at finding words to describe my feelings*), acting with awareness (e.g., *When I do things, my mind wanders off and I'm easily distracted*), non-judging of inner experience (e.g., *I make judgments about whether my thoughts are good or bad*) and non-reactivity to inner experience (e.g., *I watch my feelings without getting lost in them*). All items were rated on 5-point Likert scale ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*).

Academic Achievement was measured using self-reported grade point average (GPA). Academic grading in Croatia ranges from 1 (*Insufficient*) to 5 (*Excellent*).

Swedish Flow Proneness Questionnaire (Ullén et al., 2012), previously adapted for assessing flow in the academic domain (Ljubin-Golub et al., 2018), was used to assess individual proneness to experience flow in academic activities. All items (e.g., *When you are learning, doing assignments or projects for your studies, how often does it happen that.... e.g., you feel completely concentrated*) were rated on a 5-point Likert type scale ranging from 1 (*never*) to 5 (*every day*).

Academic Flourishing Scale (Rijavec & Ljubin Golub, 2017) was used to assess self-perceived flourishing in the academic domain (e.g., *Studying helps me fulfil my potential*) which are rated on a 7-point Likert type scale ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*).

Flourishing Scale (Diener et al., 2010) was used to assess self-perceived success in important areas such as competence, meaning and purpose in life, positive relationships, (e.g., *I am competent and capable in the activities that are important to me*). All items were rated on 7-point Likert type scale, ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*).

A higher average result on each scale indicates higher level of the variable. All measures used were previously shown to have good psychometric characteristics in Croatian samples (Gračanin et al., 2017; Ljubin-Golub et al., 2018; Rijavec & Ljubin Golub, 2017). In this study all instruments demonstrated adequate reliability of Cronbach alpha type as presented in Table 1.

4. Results

4.1. Descriptive statistics, correlations among the study variables and Cronbach's alpha

Students in this study reported moderate levels of dispositional mindfulness facets and experienced academic flow, very good academic achievement, and moderately high levels of experienced general and academic flourishing. Significant correlations were in the predicted positive directions (Table 1).

Table 1. Descriptive statistics and correlations among the study variables.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Observing	-	.22*	-.02	-.26**	.27**	-.06	.16	.15	.15
2. Describing		-	.51**	.25**	.19*	.03	.41**	.45**	.28**
3. Acting with awareness			-	.36**	.17	.23**	.44**	.49**	.36**
4. Non-judging				-	.10	.06	.04	.26**	-.00
5. Non-reactivity					-	.08	.22*	.36**	.14
6. GPA						-	.09	.09	.15
7. Academic flow							-	.48**	.45**
8. General flourishing								-	.51**
9. Academic flourishing									-
Theoretical range	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-7	1-7
Cronbach's alpha	.73	.89	.88	.85	.68	n.a.	.83	.88	.89
M	3.48	3.47	3.01	3.06	2.99	4.33	3.35	5.88	5.45
SD	0.58	0.69	0.69	0.70	0.49	0.53	0.61	0.76	1.07

Note. n.a. = not applicable; * $p < .05$; ** $p < .01$.

Four linear regression analyses (Table 2) were conducted with specific facets of dispositional mindfulness as predictors and academic achievement, academic flow, general flourishing and academic flourishing as criteria (Table 2). Proposed set of predictors explained 24% of academic flow ($F = 9.56$, $p < .001$), 34% of general flourishing ($F = 14.78$, $p < .001$), and 14% of academic flourishing ($F = 5.38$, $p < .001$). Significant positive predictors of academic flow were describing and acting with awareness. Acting with awareness was related to the academic flourishing. Describing, acting with awareness, and non-reactivity to inner experience were related to the general flourishing. Acting with awareness was significantly related to the academic achievement but the full regression model was insignificant ($F = 1.80$, $p > .05$).

Table 2. Results of the regression analyses of students' academic achievement and well-being.

Predictors	Criteria			
	GPA	Academic flow	General flourishing	Academic flourishing
	B	β	B	β
Observing	-.06	.04	.06	.09
Describing	-.10	.22*	.21*	.11
Acting with awareness	.27**	.35***	.30***	.34***
Non-judging	-.03	-.14	.09	-.13
Non-reactivity	.07	.12	.24***	.05
R ²	.07	.27***	.36***	.17***
Adj R ²	.03	.24***	.34***	.14***

Note. β = standardized beta coefficients; * $p < .05$; ** $p < .01$; *** $p < .001$.

5. Discussion

This study contributes to understanding of the relationship between the specific facets of dispositional mindfulness and students' academic achievement and well-being.

The results showing that acting with awareness facet was positively related to students' GPA are in line with previous studies (Napora, 2013; Teodorczuk, 2013). Teodorczuk (2013) suggested some mindfulness facets represent tendencies that are more inherently associated with academic achievement than others. For example, acting with awareness represent a tendency to be focused and attentive to present-moment activities and not distracted, worrying, or daydreaming (Baer et al., 2006), which facilitates also students' focus on academic activities and lead them to have better GPA. A previous study found that acting with awareness is associated with higher self-regulation in learning (Napora, 2013). Therefore, it may be suggested that acting with awareness have both direct and indirect link via self-regulation with higher achievement, which requires further investigation.

The results also showed that the facets of mindfulness - describing, acting with awareness and non-reactivity, were bivariately positively related to academic flow which is in line with previous studies linking overall mindfulness (Ljubin Golub & Gajšek, 2022a) and specific facets of mindfulness to academic flow (Ljubin Golub & Gajšek, 2022b) or flow in physical activity (Cathart et al., 2014). It was suggested that the higher tendency to act with awareness could enhance the propensity to experience flow because it provides sustained and focused attention to the activity at hand, while being able to describe and label the inner experiences enable a greater sense of control over the activity (Cathart et al., 2014).

Our results showing no relationship between observing and non-judging facets with academic flow are in line with the theoretical reasoning of Bishop et al. (2004) suggesting that these facets are unique aspects of mindfulness that are not related to flow experience. However, the relationship between non-reactivity and academic flow was not theoretically posed but was found in this study and the previous study (Ljubin Golub & Gajšek, 2022b).

This study showed a positive bivariate relationship between students general flourishing and all but observing facet of dispositional mindfulness. Our results are similar to that of MacDonald and Baxter (2017) study showing that female college students with higher tendencies to acting with awareness describing, non-judging and non-reactivity had higher flourishing. The results of our regression analysis indicated that acting with awareness, describing, and non-reactivity to inner experience facets were the most important mindfulness facets for student to flourish in life, e.g, having successful relationships, higher self-esteem, sense of purpose, and optimism in life.

Our study further found that describing and acting with awareness components were bivariately positively related to academic flourishing, in line with previous study (Ljubin Golub & Gajšek, 2022b). The facet of non-reactivity was found to be related to academic flourishing in the previous study (Ljubin Golub & Gajšek, 2022b), but not in the current study, showing that the relationship between this facet of mindfulness and academic flourishing is inconsistent. Acting with awareness was only significant facet of mindfulness predicting academic flourishing in regression analysis, indicating that the unique contribution of this facet to academic flourishing.

Finally, several limitations of this study should be mentioned. First, the sample comprised of all female university students majoring in preschool education. Therefore, further research should include male students as well as students majoring in other subjects. Second, the study design is cross-sectional thus any conclusions about causality cannot be drawn from the findings. Future longitudinal studies are needed to confirm the results of this study.

6. Conclusion

This study adds to the literature on the role of specific mindfulness facets in higher education. The results showed the key role of acting with awareness for students' academic achievement, academic flow experiences, as well as for general and academic flourishing. Describing and non-reactivity to inner experiences were shown to have the key role for academic flow and general flourishing. Therefore, universities should stress the importance of practising these specific mindfulness tendencies since they may foster students' achievement and well-being both in general and academic setting.

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