MINDFULNESS IN HIGHER EDUCATION Daniela Popa, Ph.D., Daniela Porumbu, Ph.D. *Transilvania* University of Brasov, Romania danapopa@unitby.ro, danaporumbu@unitby.ro

Abstract: The mindfulness practices have conquered the Western world since 1980, but in Romania they are still in their infancy. This study investigates the relationships between mindfulness, self-esteem and academic achievements. Research assumptions were: (1) we assume that the higher the level of mindfulness, the higher the level of self-esteem is. (2) we assume that there is a significant positive correlation between the level of mindfulness and the level of academic performance. The main method used in this research was the questionnaires survey. The research instruments were a demographic data questionnaire and reporting relevant grades: average study years, the mean of the final exams, Rosenberg (1965) Self-Esteem Scale and Five Facet Mindfulness Questionnaire. The obtained results show that there are moderate correlations between the studied variables. Cultivating mindfulness within the curriculum at the academic level and not only, can bring substantial benefits to educational agents: teachers, students, pupils.

Keywords: *academic performance; mindfulness; self-esteem;*

1. Introduction

The world is in a continuous search for ways and means to improve the quality of life.Psychologists and researchers discover and rediscover new ways to respond to people's need to solve the current problems they are facing. Some of the current challenges relate to academic performance. Not only obtaining the academic achievement is important, but the way to that aim is important too. This journey can be sprinkled with stress, sorrow, industrious effort or it can be one characterized by joy, hope and mindfulness.

1.1.Mindfulness

The term *mindfulness* is the translation in English of the term's *sati* from Pali and Sanskrit term *smrti, the first translation being attributed to T. W. Rhys Davids.* Mindfulness is defined as "non – judgmental, direct observation of mind and body in the present moment, along with a claim that this kind of observation is peculiarly efficacious'' (Gethin, 2011, p. 267). Mindfulness is seen by some researchers as a self-regulation of attention (Bishop, et al., 2004).

It is considered a contemplative practice, of meditation or focusing attention on everyday activities. Mindfulness is used in order to "help the individual perceive reality more clearly; enabling students to understand themselves and others better and enjoy a more fulfilling and joyful life" (Albrecht, Albrecht, & Cohen, 2012, p. 3). Mindfulness enables the circumventing of automatic piloting as well as disconnection from one's self and from physical and social environment (Gaspar, 2018).

One of the first westerners that used mindfulness in clinical contexts is Jon Kabat-Zinn. His studies, beginning in 1980, included mindfulness as a method of reducing stress (Kabat-Zinn, 1982). Starting from the clinical context (Chiesa, Serretti, 2009), the concept gained new uses in various contexts: in the workplace (Hülsheger, Alberts, Feinholdt, & Lang, 2013), in the educational environment (Flook, Goldberg, Pinger, & Davidson, 2015). Research shows the strong influence of mindfulness techniques on stress reduction (Bluth et al., 2015) on the reduction of anxiety (Carboni, Roach, & Fredrick, 2013), on the quality of life (Wallace, & Shapiro, 2006), on increasing the level of concentration of attention (Jha, Krompinger, & Baime, 2007), improved performance (Broderick, 2013), as well as other benefits that influence the well-being of the individual.

1.2.Self-esteem

In 1890, William James was one of the first to use the concept of self-esteem. He described as a sense of self what depends on how we strive to be and do.As well, James affirmed that the success and achievement desired depends on what one think about his own person (Pajares, Schunk, 2001). Recently, researchers have suggested that the self-esteem system works automatically in assessing the likelihood of acceptance versus the exclusion of the concerned individual by others.

The research conducted by Baccus, Baldwin and Packer (2004) demonstrate that the self-esteem system stores this information in the form of positive or negative associations with the Self, and these associations can be modified by the acceptance-conditioning procedure. Cognitive foundations of implicit self-esteem suggest that self-esteem reactions are rooted in associations between self-perceptions and expectations of social positive or negative feedback (Baccus, Baldwin, Packer, 2004). This seems to be one of the reasons why interpersonal relationships influence self-esteem and, implicitly, academic achievements (Baccus, Baldwin, Packer, 2004).

Research shows that there is a significant, positive and moderate correlation between the relationship between self-esteem and means of academic grades. The weak correlation is supported by research that postulates that the weak association between self-esteem and academic performance is determined by students who are more cognitively and academically successful, but who have a more critical view of their own person and students with modest academic abilities, but who compensate for their lack with a high general self-esteem (Yanti, Hidayatulfathi, Ismarulyusda, Syarif, Nur, Baharudin, 2012).

1.3.Academic achievement

Often academic achievement is defined by adhering to a higher level of quality in terms of academic activities, requirements and aims of the educational programs (Popa, Voicu, 2015). Grades received at final assessments, the exams result in areas as math, science, annual averages are the main indicators of the level of achievement (Sirin, 2005). However, these indicators do not only reflect the level of competence reached by the student and the wealth of his knowledge, but also the level of competence required by the educational institution, the teacher's standards.

Factors influencing the level of academic outcomes are often classified into: individual and social contextualities. The contextual factors category includes the external influences exerted by family, group of friends, community, the characteristics of the study group, characteristics of the educational institution, relations between teachers and students. Individual factors are classified into biological (health, developmental) and psychological factors as: intellectual potential, emotional regulation, motivational level, attitudes and values, level of self-regulation of learning behavior, mechanisms of awareness, etc. (Antičević, Kardum, Klarin, Sindik, & Barač, 2018).

Specialized literature proves the existence of relationships between mindfulness and academic achievement in typical individuals (Franco, Mañas, Cangas, & Gallego, 2010;

Morisano, Hirsh, Peterson, Pihl, & Shore, 2010; Lu, Huang, & Rios, 2017) as well as those experiencing learning difficulties (Beauchemin, Hutchins, & Patterson, 2008).

2. Method

The *research aimed to* investigate the relationships between mindfulness, self-esteem and academic performance.

Research assumptions were: (1) we assume that the higher the level of mindfulness, the higher the level of self-esteem. (2) we assume that there is a significant positive correlation between the level of mindfulness and the level of academic performance.

The main method used in this research was the questionnaires survey. The research instruments were a demographic data questionnaire and reporting relevant grades: average study years, the mean of the final exams, Rosenberg (1965) Self-Esteem Scale and Five Facet Mindfulness Questionnaire.

Academic acheivement has been operationalized by considering the final average obtained at the final exams and the average of the years of study in high school. The grades were reported by each research participant. An arithmetic mean of the two evaluations was made. The underlying arguments for this choice are: baccalaureate is a synthesis test and the possibilities for the student to hit subjects for which he is not well prepared are great; not always the final exams grades reflect the student's competences in full; the average of study years reflects better the student's potential, level of involvement and level of knowledge, the average of study years reflects the student's commitment over the last 4 years.

The level of Mindfulness has been operationalized as "the awareness that emerges through paying attention to purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat - Zin, 2003, p. 145). Investigating the level of Mindfulness was carried out by completing the Five Facet Mindfulness Questionnaire (Baer et al., 2006). The scale of 39 items evaluates 5 "facets of a general tendency to be mindful in daily life: observing, describing, acting with awareness, nonreactivity to inner experience, and nonjudging of inner experience" (Teodorczuk, 2013). Scoring of items is done through a 5-point Likert scale ranging from a maximum of 5 which means very often or always true, to 1 which means never or very rarely true. The Cronbach alpha coefficient obtained for each sub-scale is: observe = 0.81, describe = 0.87, act with awareness = 0.85, non-judge = 0.83, and non-react = 0.79. The results are similar to those reported by the scientific literature (r: 0.80 - 0.88) (Baer et al., 2008).

The Self Esteem level was evaluated by completing the Rosenberg (1965) Self-Esteem Scale scale. This scale indicates the extent to which respondents believe they have qualities, are satisfied with their own personality and achievements. Items are ranked on a 5-point Likert scale from 1 (total disagreement) to 5 (total agreement). Half of the items, 5 of which are ranked in reverse (eg, "I would like to respect myself more"). The Cronbach alpha coefficient obtained for this scale is at the values presented in the scientific literature of $\alpha = 0.82$, $\alpha = 0.80$, $\alpha = 0.88$, and $\alpha = 0.89$. Who were the authors reporting these values and for which of the dimensions?

Participants

The group of participants consists of 134 first year students. Of these, 40 are enrolled at the Faculty of Psychology and Science of Education, 40 at the Faculty of Medicine, and 54 following the Faculty of Economic Sciences and Business Administration. Of the total number of participants, a number of 105 respondents which represent 78% of the total are female students and 29 respondents which represent 22% are male students. The age group is

between 18 and 26 years of age. Regarding the residence environment, we can state that a number of 113 students which represent 84% come from urban areas, and 21 students reside in rural areas.

Data collection

The setting and location from where the participants were recruited was Transilvania University of Brasov. The data collection period was 1 May - 15 June 2018. The eligibility criterion for selection of participants was their student status enrolled in the first year of study and participation at an introductive course of mindfulness. In order to avoid any potential sources of bias, the questionnaires were applied by other persons because the investigators were teaching to the students eligible for participation in this research.

Data analysis

The respondents' answers were collected using an IMB SPPS Statistic 21 data editor. The database has no missing data. The statistical analyses that were applied were proportions, means, standard deviations and Pearson Correlations.

3. Results

The results are presented in Table 1 Descriptive statistics: Mean (M), standard deviation (SD) for all the variables show the characteristics of the study population.

Table 1 Descriptive statistics: Mean (M), standard deviation (SD) for all the variables

	GPA	SES	OBS	DESC	ACTA	NONJ	NONR
M(SD)	8.67(1.04)	12,75(1.06)	3.23(1.14)	3.45(1.05)	2.61(0.97)	2.80 (1.10)	3.15(0.95)

The first hypothesiswe assume that the higher the level of mindfulness, the higher the level of self-esteem, is confirmed. All correlation coefficients have acceptable values at a statistically significant threshold, as can be seen in Table 2 Correlations coefficients between the variables.

The second hypothesis:we assume that there is a significant positive correlation between the level of mindfulness and the level of academic performance confirmed. As we can see in Table 2 Correlations coefficients between the variables, the correlation coefficients have average values at a statistically significant threshold. Thus, there is a weak correlation between GPA and SES (r = 0.214, p \leq 0.001) which translates into: the higher the GPA, the higher the self-esteem level is.

The observe sub-scale (OBS) correlates strongly and positively with GPA with r= 0.402 and a threshold of $p \le 0.001$. The describe sub-scale (DESC) correlates strongly and positively with GPA with r= 0.515 at a threshold of $p \le 0.001$. The act with awareness sub-scale (ACTA) correlates strongly and positively with GPA with r= 0.653 at a threshold of $p \le 0.001$. The non-judge sub-scale (NONJ) correlates strongly and positively with GPA with r= 0.573 at a threshold of $p \le 0.001$. The non-react sub-scale (NONR) correlates strongly and positively with GPA with r= 0.589 at a threshold of $p \le 0.001$.

		GPA	SES	OBS	DESC	ACTA	NONJ	NONR
	GPA	1.000	.214**	.402**	.515**	.412**	.336**	.363**
Pearson correlations	SES		1.000	.620**	.572**	.653**	.573**	.589**
	OBS			1.000	.640**	.628**	.610**	.632**
	DESC				1.000	.678**	.630**	.651**
	ACTA					1.000	.700**	.780**
	NONJ						1.000	.810**
Pea	NONR							1.000

Table 2. Correlations coefficients between the variables

Legend: ^{**} = significance level $p \le 0.01$, (strong statistically significant), GPA= grade point average, SES = self-esteem scale; OBS = observe sub-scale, DESC = describe sub-scale, ACTA = act with awareness, NONJ = non-judge, and NONR = non-react.

4. Conclusions

This study demonstrates the existence of significant positive ties between academic performance and mindfulness, but less strong as other studies report, for example Nivenitha, & Nagalakshmi, 2016. Higher correlations are observed between mindfulness and self-esteem. This confirms the results of other studies that highlight the relationship between mindfulness and unconditional self-acceptance (Thompson, & Waltz, 2008). The reported results are consistent with the literature (Beauchemin, Hutchins, & Patterson, 2008; Caldwell, Harrison, Adams, Quin, and Greeson, 2010; Rosenstreich, & Margalit, 2015). We consider mindfulness as being one of the strategies that can optimize learning and development of students and teachers as well. Using mindfulness in education is a perspective from which we can cultivate strengths andprevent the occurrence of unpleasant phenomena as the occurrence of the self-deprecatory thoughts (Beauchemin, Hutchins, & Patterson, 2008).

This study also has its limits that we will outline further. The unrepresentative number of respondents and the presence of a majority of female respondents are some of the possible sources of bias in this study. We desire to introduce mindfulness courses in Romanian university programs or at least to familiarize students and teachers with such techniques that are beneficial to productivity and personal satisfaction (Hülsheger, Alberts, Feinholdt, & Lang, 2013).

References

Albrecht, N. J., Albrecht, P. M., & Cohen, M. (2012). Mindfully teaching in the classroom: a literature review. Australian Journal of Teacher Education, 37(12), n12.

- Antičević, V., Kardum, G., Klarin, M., Sindik, J., & Barač, I. (2018). Academic Achievement and Study Satisfaction: The Contribution of High School Success and Personality. *Društvena istraživanja: časopis za opća društvena pitanja*, 27(2), 243-260.
- Baccus, J. R., Baldwin, M. W., Packer, D. J. (2004). 'Increasing Implicit Self-esteem through Classical Conditioning'. American Psychological Society, 15(7). http://www1.appstate.edu/~kms/classes/psy5150/

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. Assessment, 13, 27-45.
- Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., ... & Williams, J. M. G. (2008). Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. Assessment, 15(3), 329-342.
- Beauchemin, J., Hutchins, T. L., & Patterson, F. (2008). Mindfulness meditation may lessen anxiety, promote social skills, and improve academic performance among adolescents with learning disabilities. Complementary Health Practice Review, 13(1), 34-45.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., & Devins, G. (2004). Mindfulness: A proposed operational definition. Clinical psychology: Science and practice, 11, 230–241.
- Bluth, K., Campo, R. A., Pruteanu-Malinici, S., Reams, A., Mullarkey, M., & Broderick, P. C. (2015). A school-based mindfulness pilot study for ethnically-diverse at-risk adolescents. Mindfulness. doi:10.1007/s12671-014-0376-1
- Broderick, P. C. (2013). Learning to Breathe: A mindfulness curriculum for adolescents to cultivate emotion regulation, attention, and performance. Oakland, CA: New Harbinger.
- Caldwell, K., Harrison, M., Adams, M., Quin, R. H., & Greeson, J. (2010). Developing mindfulness in college students through movement-based courses: effects on self-regulatory self-efficacy, mood, stress, and sleep quality. Journal of American College Health, 58(5), 433-442.
- Carboni, J. A., Roach, A. T., & Fredrick, L. D. (2013). Impact of mindfulness training on the behavior of elementary students with attention-deficit/hyperactive disorder. Research in Human Development, 10(3), 234-251. doi:10.1080/15427609.2013.818487
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. The journal of alternative and complementary medicine, 15(5), 593-600.
- Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. Developmental Psychology, 51(1), 44-51. doi:10.1037/a0038256.supp
- Franco, C., Mañas, I., Cangas, A. J., & Gallego, J. (2010, September). The applications of mindfulness with students of secondary school: Results on the academic performance, selfconcept and anxiety. In World Summit on Knowledge Society (pp. 83-97). Springer, Berlin, Heidelberg.
- Gaspar, G., (2018). Mindfulness urban: exerciții de curaj, compasiune, conectare, București: Curtea veche Publishing.
- Gethin, R. (2011). On some definitions of mindfulness. Contemporary Buddhism, 12(01), 263-279.
- Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: the role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. Journal of Applied Psychology, 98(2), 310.
- Jha, A. P., Krompinger, J., & Baime, M. J. (2007). Mindfulness training modifies subsystems of attention. Cognitive, Affective, & Behavioral Neuroscience, 7(2), 109-119.
- Kabat-Zinn, J. (1982). An outpatient program in behavioural medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. General Hospital Psychiatry, 4, 33-47.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. Clinical Psychology: Science and Practice, 10(2), 144-156. doi: 10.1093/clipsy/bpg016
- Lu, S., Huang, C. C., & Rios, J. (2017). Mindfulness and academic performance: An example of migrant children in China. Children and Youth Services Review, 82, 53-59.

- Morisano, D., Hirsh, J. B., Peterson, J. B., Pihl, R. O., & Shore, B. M. (2010). Setting, elaborating, and reflecting on personal goals improves academic performance. Journal of Applied Psychology, 95(2), 255.
- Nivenitha, P., & Nagalakshmi, K. (2016). Influence of Test Anxiety and Mindfulness on Academic Performance among Adolescents. The International Journal of Indian Psychology, Volume 3, Issue 4, No. 66, 34.
- Pajares, F., Schunk, D. H. (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. In R. Riding & S. Rayner (Eds.). Self perception (239-266). London: Ablex.
- Popa, D., & Voicu, B. C. (2015). Motivational Aspects Engaged in Performance of Preadolescent Students. Procedia-Social and Behavioral Sciences, 203, 186-191. https://doi.org/10.1016/j.sbspro.2015.08.280
- Rosenstreich, E., & Margalit, M. (2015). Loneliness, mindfulness, and academic achievements: A moderation effect among first-year college students. The Open Psychology Journal, 8(1).
- Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. Review of educational research, 75(3), 417-453.
- Teodorczuk, K. (2013). Mindfulness and academic achievement in South African university students (Doctoral dissertation, University of Johannesburg).
- Thompson, B. L., & Waltz, J. A. (2008). Mindfulness, self-esteem, and unconditional selfacceptance. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 26(2), 119-126.
- Wallace, B. A., & Shapiro, S. L. (2006). Mental balance and well-being: building bridges between Buddhism and Western psychology. American Psychologist, 61(7), 690.
- Yanti, R., Hidayatulfathi, O., Ismarulyusda, I., Syarif, H. L., Nur, Z. M. S., Baharudin O. (2012). Self-esteem and academic performance relationship amongst the second-year undergraduate students of Universiti Kebangsaan Malaysia, Kuala Lumpur Campus. Procedia - Social and Behavioral Sciences 60, 582 – 589.