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A Review Study of an Innovative Model for Learning Environment in Higher Education; "Fear, Envy, Anger, Sympathy and Pleasure" (FEASP) Model to Promote Learning with Emotion and Motivation

Yüksek Öğretimde Kullanılan Yenilikçi Bir Model Üzerine Değerlendirme: Emosyon ve Motivasyon ile Öğrenmeyi Destekleyen "Korku, Kıskançlık, Kızgınlık, Sempati ve Haz Alma" Modeli

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Abstract

The effects of emotions on learning process have been studied by many researchers. Emotions can both promote and harm learning. While positive emotions have facilitative influence on learning process and achievements, negative emotions may hinder learning. In this context, the awareness of emotions when designing instructional program is crucial. Within this scope, Fear, Envy, Anger, Sympathy and Pleasure (FEASP) model was presented to integrate emotions with teaching strategies. FEASP models focus on five learning emotions which are Fear, Envy, Anger, Sympathy and Pleasure. The main objective of the FEASP model is to decrease negative emotions like Fear, Envy, Anger and to increase positive emotions like Sympathy and Pleasure. The aim of this study is to present FEASP model to instructors as an alternative to traditional learning strategies in higher education, and to suggest integrating emotions to their teaching strategies.

Keywords: Emotion, motivation, learning strategies, higher education, FEASP.

Öz

Emosyonların öğrenme süreci üzerindeki etkisi pek çok araştırmacı tarafından çalışılmıştır. Emosyonlar öğrenmeyi desteklerken zarar verici de olabilirler. Olumlu emosyonlar öğrenme ve başarı üzerinde kolaylaştırıcı etkiye sahipken, olumsuz emosyonlar öğrenmeyi engelleyebilir. Bu sebeple, eğitim programlarının tasarlanmasında emosyon farkındalığı çok önemlidir. Bu bağlamda, öğretme stratejileri ile emosyonları entegre etmek amacıyla Korku, Kıskançlık, Kızgınlık, Sempati ve Haz Alma modeli sunulmuştur. FEASP modeli, beş farklı öğrenme emosyonu üzerinde durmaktadır. FEASP modelinin temel amacı, korku, kıskançlık ve kızgınlık gibi olumsuz emosyonları azaltmak; sempati ve haz alma gibi olumlu emosyonları arttırmaktır. Bu çalışmanın amacı, FEASP (Korku, Kıskançlık, Kızgınlık, Sempati ve Haz Alma) modelini, yüksek öğrenimde geleneksel öğrenme stratejisine alternatif olarak öğretim elemanlarına sunmak ve öğretme stratejileri ile emosyonları entegre etmeytir.

Anahtar Kelimeler: Emosyon, motivasyon, öğrenme stratejileri, yüksek öğretim, FEASP.

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1. Introduction

In the last decade, emotions have become an important topic in academic settings due to its significant effect on learning. In recent years emotions are seen as one of the significant factors in students' satisfaction (Cho & Heron, 2015), students' learning behaviors (Pekrun et al., 2010), and students' achievements (Ellis & Ashbrook, 1988). Furthermore, emotions are seen as crucial in learning and memory, motivation, development, psychological health, and neuro-immunological functioning (Lewis, Haviland-Jones & Barrett, 2008). Schutz and Pekrun (2007) emphasized the importance of emotions for student's motivation, learning, performance, identity development and health, in academic settings.

It is asserted by many researchers that emotion can have influence on academic success and learning by increasing the level of dopamine in the brain. The dopamine in the brain was proven to increase long term memory (Ashby, Isen & Turken, 1999). The dopamine increases long term memory by strengthening attention (Meinhardt & Pekrun, 2003), regenerating attention in learning stuff (Ainley, Corrigan & Richardson, 2005), provoking various ways of information processing and problem solving (Isen, 2008), and helping students self-regulation of learning and performance (Pekrun, Goetz, Titz, & Perry, 2002). Although emotions are seen effective in learning, not all emotions provide positive outcome on learning and student's satisfaction. Studies have showed that while positive emotions enhance learning and achievement, negative emotions can impair the learning (Greenleaf, 2003; Edelmann, 2000).

2. The Usefulness of Positive and Negative Emotions in Learning

Emotions are a very potent tool for boosting or restraint learning (Greenleaf, 2003). According to Edelmann (2000) emotions can both facilitate and impair the learning process.

Studies that point out the importance of emotions in the environment of learning, also highlights the importance of differentiation about positive and negative emotions. They show that while positive favorable emotions simplify the learning, negative unfavorable emotions can damage learning process (Edelmann, 2000; Pekrun, Goetz, Titz & Perry, 2002).

Positive emotions are prevailingly acknowledged as «pleasant» case of emotions that are discern from negative emotions accounted as «unpleasant» case of emotions (Gadanho & Hallam, 2001). As positive emotions form the bases for the development of cognitions and motivation which influence learning, they are seen as a contributing factor in effectiveness and outcome of learning. Positive emotions stimulate the continuity of current state where negative emotions evokes the change of ongoing environment (Fredricson, 2003).

According to Akbiyik (2010), positive emotions towards academic environment and material simplify applicability of workable, innovative learning methods like amplification, management, grouping, critical appraisal, and metacognitive observation. On the contrary, negative emotions can provoke and active the utilization of more adamant methods like simple rehearsal and being dependent on algorithmic steps. All these actions should be more powerful in boosting emotions rather than passivate. Physiological emotions like relaxation or disgust which include body reactions also include cognitive passivation consequence; hence these kind of sensations causes decrease in attention which directly influence the information process. Pekrun, Goetz, Titz and Perry (2002) place special emphasis on positive emotions more than negative ones, as they allege that favorable emotions facilitate the imagination of challenges, purposes and aims help the mind to be prepared for deeper thoughts and to figure out more problem solving methods, They also claim that these positive emotions assure health by encouraging emotional bonds with significant others and support self-regulation process and mentor actions of groups, society and nations.

Positive emotions promote self-regulated learning (Boekaerts, Pintrich & Zeidner, 2000) and are found to have crucial effect on learning, interest, and innovative thoughts (Norman, 2004). According to Edelmann (2000), perceived self-regulation is positively linked to positive emotions, while perceived external regulation is associated with negative unfavorable emotions (Pekrun, Goetz & Titz, 2002). However, looking at it the other way negative emotions, even quite few unfavorable sensations, can provoke onset of stress response which directly influences the activation level of students. Pekrun, Goetz and Titz (2002) added second element to their own model which was called activation. They stated that both positive and negative emotions can have two dimensions, which are activation and deactivation. By using two aspects of activation they have classified emotions especially academic ones as positive activating emotions like happiness, hope, proud for success, positive deactivating ones like alleviation, comfort after success. On the contrary, they also group negative emotions as negative activating ones like aggravation, abashment, anger, anxiety and negative deactivating ones like despair, apathy. Negative emotions are widely studied topic when compared to positive emotions, especially academic anxiety, mostly anxiety about mathematics classes. Most of the studies showed medium and negative correlation between anxieties in mathematics (Hembree, 1988; Ma, 1999). However, a spot of

research have investigated the relationship between positive emotions and academic achievement. Some of them reported positive relations between learning-related enjoyment and achievement in mathematics (Jerusalem & Mittag, 1999; Goetz, 2004).

In the experiment of Spachtholz, Kuhbandner and Pekrun (2014) with color wheel, the participants were expected to find out the target color after the presentation of wheel for 200 ms consisting of either four (working memory task) or six (sensory memory task) colored squares. After the presentation of colors, the impact was decreased. The attendants recapture a neutral or sad autobiographical event for 3 minutes during heeding to appropriate music. As a result of this, study it ,s claimed that negative sensations have injurious results for working memory performance. Moreover, in the same study it has been concluded that in comparison with neutral sensations, negative sensations diminish the scope of both sensory and working memory.

Besides the aforementioned ascendancy of emotions on learning, the domination of emotions on students' and instructors' motivation level is another effect of emotions on learning. Vollmeyer (2005) asserts that positive emotions boost the motivational level of students. In many of the empirical studies, it has been found that positive emotions are positively associated with learning based motivation, self-regulated performance, stimulation of cognitive utilities and completion (Ashby, Isen, & Turken, 1999; Pekrun, 2006).

3. Motivation, Learning and Emotion

Motivation denotes a hypothetical structure, which can be explained with the selection of behavior, permanence of behavioral development, and its intensity (Heckhause, 2008). Motivational variables affect how long it will take for a student to learn (permanence), how much they can concentrate on the learning task (intensity), and how the students feel during classroom activities (feeling of behavior).

The distinction between intrinsic and extrinsic motivation acts as a serious part in the theories of motivation based on learning. Voluntary behaviors are intrinsically motivated behaviors because such behaviors are carried out with excitement, interest, and ambitioun (Schiefele & Köller, 2006). Impulses based on motivation are within the action. On the other hand, in extrinsic motivation the behavior is formed via external impulses, and in this way either positive results are reached or negative consequences are tried to be avoided.

The attendance of students to curricular activities within the school shows that they are motivated both towards both the school and the subject (Natriello, 1984). School and course attendance have academic, behavioral, cognitive and psychological dimensions (Reschly & Christenson, 2006). Motivation to attend courses is vital. It enables students to form positive attitudes towards the school and school related activities, (Reschly & Christenson, 2006), makes them more eager to learn, and increases their resistance and determination against difficulties faced in the school and learning environment (Bomia et al., 1997; Pintrich & De Groot, 1990). Studies related to motivation have shown that the level of student motivation to attend classes is an influential factor behind their boredom, unwillingness, loss of focus, loss of attention, and inability to relate learned material to their daily lives. Such problems in turn results in students skipping school or classes (Reeve et al., 2004).

According to Rheinberg (1999) emotions affect motivational processes in many ways and in this way influence the birth, extent and timing of certain behaviors. Besides accompanying motivational processes, emotions also have activating and preventive effects on them (Heckhausen, 2008). A learner needs to be intrinsically or extrinsically motivated to be able to solve an exercise or a complex problem. Effort, happiness, boredom, unhappiness, anger, and success or failure expectancies are important determinants of learning success (Edelmann, 2000). To summarize, studies which work on the relationship between emotions and motivations argued that these two structures are intertwined which signifies that if students might well recognize and organize their emotions, they can also foster motivation (Turner, Meyer & Schweinle, 2003).

In recent studies, researchers have started to cultivate in the role of emotions in learning and achievement not only by dwelling on the significance of emotions for motivation or learning environment but also how they can arrange instruction by using emotions (Astleitner, 2000; Gläser-Zikuda, Fuss, Laukenmann, Metz, & Randler, 2005). Thus, instruction and instructors started to become a significant topic in studies about emotional learning.

4. Instruction, Instructors and Emotions

Teacher emotions are important and inseparable variables in instructional settings (Hargreaves, 1998) and cast a direct influence on classroom effectiveness (Sutton, 2005), students' emotions, impetus and motivation (Becker et al., 2014) as well as students' learning and activation (Pekrun et al., 2002). Emotions are assumed to influence teachers'

instructional method, collaboration with colleagues, personality advancement, and psychological health as how they influence the students' academic achievements and their psychological well-being. With the help of implication about emotion and motivation, school stuff including teachers, principals, and school employees, will be more positively active, and there will be no need to understand emotional interaction. Moreover, implications are believed to shape the school and academic institutions in affectively beneficial ways. Studies have showed that teachers benefit from emotions when students are motivated, enlist and present personal advancement (Stenlund, 1995; Frenzel & Götz, 2007; Frenzel et al., 2009; Becker et al., 2015). In their study, Cho and Heron (2015), scrutinized the place of motivation, emotion, and learning methods, in students' learning experiences in a remedial online mathematics course. They found that motivational and emotional factors statistically predicted students' achievement and satisfaction; whereas cognitive strategies did not predict 63.1% of the variance in achievement and satisfaction. Furthermore, in the same study the findings showed that motivation statistically conduce to explaining 11.9% and emotional variables significantly conduce to explaining 51.2 % of the variance in satisfaction.

The related literature in the field of emotion and learning presents that instruction and learning involve emotion dimension since these two processes have a common ground; that is, human interaction (Meyer, 2009; Schutz & Zembylas, 2009).

The emotional interaction between teacher and students causes emotional transmission which is known to effects students' mood (Frenzel et al., 2009). The emotion transmission studies are engaged in one essential amusing emotion, namely enjoyment. In the study of Frenzel et al. (2009) it is hypothesized that enjoyment of teachers and students are closely linked the interest of social interaction between teacher and students in the classroom and findings of the study presented that teacher and student enjoyment were positively related; furthermore, it was reported that the effect of teacher enjoyment on student enjoyment was mediated by teacher enthusiasm (Frenzel et al., 2009). Another study investigated the relationship between teachers emotion on students' motivation and discipline, and it was found that students' motivation was the most powerful predictor of teachers' enjoyment, which also indicates high levels of class motivation and discipline within one lesson corresponded to teachers reporting higher levels of enjoyment and lower levels of anger (Becker et. al, 2015).

In another study, researchers examine the consequences of instructor communicative behaviors and their emotional evaluation about notable negative emotions of students which involve boredom, shame, anxiety and hopelessness (Mazer, 2014). The finding of the same study indicated that the students taught by the teachers who are destitute of immediacy, imprecise and unclear, and communication skills are more inclined to inform elevated negative emotional responses like boredom, shame, anger , hopelessness and anger than the students who are taught by the teachers whose communication skills are satisfying (Mazer, 2014).

In brief, several researchers have demonstrated that student's cognitive, behavioral and emotional commitment to lessons boost when instructors benefit from adaptive communication skills and behaviors (Zhang & Zhang, 2013). Moreover, students whose teachers are competent at communication behaviors are predisposed to perceive classroom climate more favorable (Titsworth, Quinlan & Mazer, 2010) than those whose teachers use less touching communication behaviors (Chory, Horan, Carlton, & Hauser, 2014). Hence, to reach most favorable learning environment, it is crucial to encourage an emotionally healthy and appealing learning setting. To do this, it is essential to comprehend the biological foundation of emotions. In the currents study, in order to inform educators, the theoretical background and relevant researchs are given to illustrate the importance of emotionally sound instruction and to help pre-service and in-service teachers in creating emotionally sound interventions. This paper also presents examples to support educators to design instructions with the help of FEASP model and to make instructors switch to innovative learning strategies rather than using traditional methods.

5. FEASP Model

Educational settings are important in shaping students' development, and emotions have central role in attaining educational goals (Pekrun et al., 2002). Abele and Gendolla (1999) asserted that if educators design instructions that minimize negative emotions and maximize positive emotions, students can benefit from learning environment more than other settings.

Kleinginna and Kleinginna (1981), after having evaluated nearly one hundred definitions of emotion, defined it as "a complex set of interactions among subjective and objective factors, mediated by neural/hormonal systems, which can: (a) give rise to affective experiences such as feelings of arousal, pleasure/ displeasure; (b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread physiological adjustments to the arousing conditions; and (d) lead to behavior that is often, but not always, expressive,

goal directed, and adaptive" (p. 355). Based on this comprehensive definition of emotions, it has to be clarified what types of emotions or feelings shouldor should not be considered in Emotional Design Instruction (EDI) and which not.

According to the EDI-approach, there are five basic categories of emotional conditions that the instructional designer should understand and use in order to produceemotionally sound instruction (See Figure 1). "Fear" refers to a negative feeling arising from subjectively judging a situation as threatening or dangerous. "Envy" is a negative feeling resulting from the desire to get something that is possessed by others or not to lose something that one is possessing. "Anger" refers to a negative feeling coming from being hindered to reach a desired goal and being forced to an additional action. "Sympathy" is a positive feeling referring to an experience of feelings and orientations of other people who are in the need of help. "Pleasure" is a positive feeling based on mastering a situation with a deep devotion to an action (Astleitner, 2000). A review of the related literature shows that studies focusing on the encouragement of positive emotions or the avoidance of negative emotions are rare (Pekrun et al., 2002). The approached defined as FEASP is a model (Astleitner 2001). Astleitner (2000) has carried out a study on the FEASP approach (Fear, Envy, Anger, Sympathy, Pleasure) in which positive emotions were promoted whereas negative ones were tried to be avoided in a planned way.

According to the F(ear), E(nvy), A(nger), S(ympathy), P(leasure)-approach to encourage positive feelings in classroom setting, instructional designers need to evaluate emotional issues before and during a lesson. Fear, envy, and anger should be alleviated in the course of instruction, sympathy and pleasure should be escalated. Hinge on detected problems, emotional methods need to be planned, arranged and performed into instruction. Subsequently, the results of the implemented emotional strategies need to be appraised. The entire five element of FEASP approach is divisions which incorporate several micro concepts and theories of emotion. Each division characterizes an emotional status which instructional designer needs to pair with relevant instructional strategies (Astleitner, 2000). Pekrun et al. (2002) investigated emotions in terms of emotions felt during learning and success. Positive emotions like hope, pride, and happiness promote behaviors and learning processes of learners whereas negative emotions like anger and finding things dull deactivate students and hinder learning processes (Pekrun, 2002).

Five learning emotions (fear, hate, anger, sympathy, and joy) are the focus of FEASP Model. These emotions, according to Astleitner (1999), are the most important ones with respect to learning. Positive emotions have favorable effects on learning processes and success and they promote the continuance of the state. On the other hand, negative emotions have inhibiting and change promoting effects. In short, the FEASP model is composed of five emotional categories.

The FEASP model is not only designed just for conventional teaching but also for computer assisted learning (Astleitner 2001). According to Niegemann, emotions related to learning not only influence traditional teaching and learning but also play an important part in teaching and learning supported with interactional media. However, it has been argued that emotional dimensions are not fully taken into account in e-learning because so called "cold systems" are not composed of such complex phenomena as human emotions (Astleitner, 2001).

Moreover, in self-regulated learning, learning emotions affect a specific type of motivation. In order to provide emotional happiness and enhance learning motivation to an extent that will lead to positive educational outcomes, optimal learning circumstances have to be identified and defined (Astleitner ve Leutner 2000). Krapp (2005) has confirmed that happiness and other components of intrinsic motivation had a continuous positive effect on the learning process.

According to Krapp (2005), learning motivation can be naturally formed and preserved for a long time when the learners perceive learning as important (sympathy and reaching the topic happily), interesting, and his or her basic needs are met to a considerable extent (autonomy, proficiency, and social attachment) (Lewalter, 2002).

Emotions can therefore promote, retain and construct motivation. Negative deactivated emotions like anger harm motivation whereas activating positive emotions like happiness promote intrinsic motivation. That is to say, happiness is positively linked to intrinsic and extrinsic motivation, interest, and learning outcomes. On the other hand, boredom is negatively linked to motivational variables and effort (Pekrun et al, 2002). According to Astleitner (1999), anger and fear decrease intrinsic motivation. If an individual has the will towards desire and joy in doing a given homework, that person is able to assert more attention and concentration towards it (Pekrun, 2002).

Fear, jealousy, anger, sympathy, and enjoyment are the focal points of the FEASP model. The layout of the model presented below was asserted by Astleitner (1999): Fear; fearfulness, anxiety, danger and shyness. Envy: Competition, sense of justice and sense of dangerous: Anger: Aggressive, rage, grudge, imperfection, boredom, violence, disappointment, frustration, prevention, pressure and dissension: Sympathy: Love, tendency, friendship, reverence/respect, sorrow, acceptance, sensitivity, group feeling, loneliness, social attachment, sense of responsibility, trust and readiness: Pleasure; happiness, joy, enjoyment, wit / humor, reward and amusement. Emotions within the

FEASP approach are essential for both students (tertiary level) and instructors. Negative emotions like fear, envy and anger should be alleviated and positive emotions like sympathy and pleasure should be boosted. FEASP teaching strategies aimed at FEASP emotions are presented below. Hereby, researchers are provided with suggestions and references as to which learning emotions will lead to what types of emotion and how these will be alleviated.

Learning emotion uses F1-F4 learning strategies to tackle fear and the E1-E4 learning strategies to decrease the envy factor (Table 1).

Table 1.

General Interactional Strategies of the FEASP-Approach (Astleitner, 2000, p. 191: Astleitner & Leutner, 2000, p. 499)

Primary	Instructional	Examples in Traditional Instruction	Examples in
Emotions	Strategies		Instructional Technology
FEAR	F1	Ensure success in learning	Use well-proven motivational and
Reduction			cognitive instructional strategies
	F2	Accept mistakes as opportunities for	Let student talk about their failure, their
		learning	expectations, the reason for errors, etc.
	F3	Induce relaxation	Apply muscle relaxation, visual imagery,
			autogenics, or meditation
	F4	Be critical, but sustain a positive	
		perspective	
Envy	E1	Encourage comparison with	Show students their individual learning
reduction		autobiographical and criterion reference	history
		points instead of social standards	
	E2	Install consistent and transparent	Inform students in detail about guidelines
		evaluating and grading	for grading
	E3	Inspire a sense of authenticity and	Install "personal information boards"
		openness	telling others who you are
	E4	Avoid unequal distributed privileges	Grant all students or no student access to
		among students	private matters
Anger	A1	Stimulate the control of anger	Show students how to reduce anger
reduction			through counting backward
	A2	Show multiple views of things	Demonstrate how one problem can be
			solved through different operations
	A3	Let anger be expressed in a constructive	Do not accept escaping when
		way	interpersonal problem solving is
			necessary
	A4	Do not show and accept any form of	Avoid threatening gestures
		violence	
Sympathy	S 1	Intensify relationships	Get students to know other students'
increase	~ •		friends and families
	S 2	Install sensitive interactions	Reduce students' sulking and increase
	6.0		their asking for help
	S3	Establish cooperative learning structures	Use group investigations for cooperation
	<u>S4</u>	Implement peer helping programs	Let students adopt children in need
Pleasure	P1	Enhance well-being	Illustrate students a probabilistic view of
increase	D2		the future
	P2	Establish open learning opportunities	Use self-instructional learning materials
	P3	Use humor	Produce funny comics with students
	P4	Install play-like activities	Use simulation-based instructional games

There are only two studies which showed the empirical validation of the FEASP model. One of the studies was conducted by Astleitner (2001) to address the usability and flexibility of the FEASP-approach. In the study, 163 teachers and 53 students were asked about the value of emotions, and also about the frequency and the association between instructional strategies and related emotions in the time of lecturing based on the FEASP-approach. The findings of the study have revealed that emotions which are emphasized by the FEASP-approach are significant and

can be utilized within instructional contexts. Moreover, results show that FEASP-approach is applicable, suited, adaptable and persistent for daily instruction. Moreover, FEASP-approach is influential for utilization of emotions in regular instruction. The other study which conducted by Sztejnberg, Hurek and Astleitner (2006) was also about revalidating the remarkability and acceptability of FEASP-emotions. In the study, 654 Polish high school students and 147 teachers of 14 secondary schools were requested to fulfill the questionnaire about general remarkability of emotions in the course of instruction, various forms of emotions and FEASP emotions. The results showed similar findings with previous validation study in that emotions and notably FEASP-emotions were important in daily instruction and that they were measured with high reliability.

The results of FEASP studies show that emotions are crucial in learning environment and strategies of FEASP model can be implemented to e-learning (Astleitner, 2001). As reported by (Astleitner, 2001), all instruction strategies cannot be used in learning environment; however, it is important to discuss and evaluate different learning strategies that evokes learning emotions.

6. Conclusion, Suggestions and Discussion

Learning to do something occurs while students determine whether they like to do something (emotions influence our ability to process information and to accurately understand what we encounter), while struggling with material may lead to disliking it (creating anxiety) (Ashby, Isen, & Turken, 1999; Pekrun, 2006). KayGrieder (2006) claims that decreasing the negative emotions is easier than provoking the positive ones. Not only do positive emotions affect learning process but also they also influence motivation. As reported by Kim and Hodges (2012) when students feel more hopeful about their objectives and the opportunity of fulfillment of those objectives, they are more stimulated to repeat the behavior. This process is the same with success, when students are delighted after success; they are more enthusiastic about repetition of success bringing behavior (Kim & Hodges, 2012). Hence, to increase positive emotions while decreasing negative ones, and to increase motivation level of students, FEASP model which is a possible innovational model for designing emotionally sound instruction as an alternative to traditional strategies that are used in higher education, is presented in the current study.

Achievable knowledge about the effectiveness of emotion and motivation on learning settings advocates linkage between these three concepts; however information about usability of these three concepts is too limited. It is believed that education field would make use of researches on teaching strategies which encompass the formation of emotionally apprehensive environment and provide educators with pragmatic techniques in the field. Investigation about the efficacy of emotion, motivation and learning on learning settings, which intensify the development of positive learning environments and emotional teaching strategies, would be effectual for the field.

In this paper, FEASP approach is introduced for educators by providing 20 general instruction strategies for making emotionally sound instructions (See Figure 1). The present article can help instructional designers and teachers in characterizing and identifying emotional problems during the learning process. Although literature overtly presents emotionally sound instruction that is significantly effective on learning, there are quite few studies that present this effectiveness. Thus, this article can lead the way for the researchers to conduct empirical studies to figure out the effectiveness of FEASP Model. Moreover, since there are still remaining rhetorical questions about how diversified FEASP strategies and emotions can be associated with learning setting and students' achievements, this study apparently supporting further studies which spotlight the instructional design model. In brief, the framework introduced in this article aimed to motivate instructors to consider emotional processes and motivational processes as innovation in university settings.

References

- Abele, A.E., & Gendolla, G.H.E. (1999). Satisfaction judgments in positive and negative moods: Effects of concurrent assimilation and contrast producing processes. *Personality and Social Psychology Bulletin, 25,* 893-905.
- Ainley, M., Corrigan, M., & Richardson, N. (2005). Students, tasks and emotions: Identifying the contribution of emotions to students' reading of popular culture and popular science texts. *Learning and Instruction*, 15(5), 433–447.
- Akbiyik, C. (2010). Affective Computing Lead to More Effective Use of ICT in Education?*Revista de Educacion*, 352, 179–202.
- Ashby, F. G., Isen, A. M., & Turken, A. U. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review*, 106, 529 –550.
- Astleitner, H. & Leutner, D. (2000). Designing instructional technology from an emotional perspective. *Journal of Research on Computing in Education*, 32, 497-510.

- Astleitner, H. (1999). Emotionale Unterrichtsgestaltung (Emotional design of instruction). *Padagogische Rundschau*, 53, 307-326.
- Astleitner, H. (2000). Designing emotionally sound instruction: the FEASP-approach.*Instructional Science*, 28 (3), 169–198.
- Astleitner, H. (2001). Designing Emotionally Sound Instruction--An Empirical Validation of the FEASP-Approach. *Journal of Instructional Psychology*, 28 (4), 209-219.
- Becker, E. S., Keller, M. M., Goetz, T., Frenzel, A. C. & Taxer, J. L. (2015) Antecedents of teachers' emotions in the classroom: An intraindividual approach. *Frontiers in Psychology*, 6 (635). Doi: 10.3389/fpsyg.2015.00635, 1-12.
- Boekaerts, M., Pintrich, P. R., & Zeidner, M. (2000). Handbook of self-regulation. San Diego, CA: Academic.
- Bomia, L., Beluzo, L., Demeester, D., Elander, K., Johnson, M. & Sheldon, B. (1997). The impact of teaching strategies on intrinsic motivation. IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ED 418 925)
- Cho, M. & Heron, M. L., (2015) Self-regulated learning: the role of motivation, emotion, and use of learning strategies in students' learning experiences in a self-paced online mathematics course. *Distance Education*, 36 (1), 80-99. Doi: 10.1080/01587919.2015.1019963
- Chory, R. M., Horan, S. M., Carlton, S. T., & Hauser, M. L. (2014). Toward a further understanding of students' emotional responses to classroom injustice. *Communication Education*, 63, 41–62. Doi:10.1080/03634523.2013.837496
- Edelmann, W. (2000). Lernpsychologie (6. vollst. überarb. Auflage). Weinheim: Beltz PVU.
- Ellis, H.C., & Ashbrook, P.W. (1988). Resource allocation model of the effects of depressed mood states on memory. In K. Fiedler & J. Forgas (Eds.), *Affect, cognition and social behavior* (pp. 25-43). Toronto:C.J. Hogrefe.
- Fredrickson, B. L. (2003). The value of positive emotions. American Scientist, 91, 330-335.
- Frenzel, A. C., Goetz, T., Lüdtke, O., Pekrun, R., Sutton, R. E., (2009). Emotional transmission in the classroom: exploring the relationship between teacher and student enjoyment. *Journal of Educational Psychology*, 101 (3), 705–716. Doi: 10.1037/a0014695
- Frenzel, A. C., & Götz, T. (2007). Emotionales Erleben von Lehrkräften beim Unterrichten. *Pädagogische Psychologie*, 21, 283–295. Doi: 10.1024/1010-0652.21.3. 283
- Gadanho, S. C., & Hallam, J. (2001).Robot learning driven by emotions.*Adaptive Behavior*, 9 (1), 42-64. Doi: 10.1177/105971230200900102
- Glaäser-Zikuda, M., Fuss, S., Laukenmann, M., Metz, K., & Randler, C. (2005). Promoting students' emotions and achievement instructional design and evaluation of the ECOLE-approach. *Learning and Instruction*, 15, 481-495.
- Goetz, T. (2004). *Emotionales Erleben und selbstreguliertes Lernen bei Schülern im Fach Mathematik*. Muenchen: Utz, Herbert.
- Greenleaf, R. K. (2003). Motion and emotion. Principal Leadership, 3(9), 14-19.
- Hargreaves, A. (1998). The emotional practice of teaching. *Teacher and Teaching Education*, 14, 835–854. Doi: 10.1016/S0742-051X(98)00025-0
- Heckhausen, J., & Heckhausen, H. (Eds.). (2008). Motivation and action. New York, NY: Cambridge University Press.
- Hembree, R. (1988). Correlates, causes and treatment of test anxiety. Review of Educational Research, 58, 47-77.
- Isen, A. M. (2008). Some ways in which positive affect influences decision making and problem solving. In M. Lewis, J. M. Haviland-Jones, & L. Feldman Barrett (Eds.), *Handbook of Emotions* (pp. 548–573). New York: Guilford Press.
- Jerusalem, M. & Mittag, W. (1999). Selbstwirksamkeit, Bezugsnormorientierung, Leistung und Wohlbefinden in der Schule. In M. Jerusalem & R. Pekrun (Hrsg.), *Emotion, Motivation und Leistung* (pp. 223-245). Göttingen: Hogrefe.
- Kay Grieder, S. (2006). Emotionen von Berufsschülern bei selbstreguliertem Lernen- Eine Interventionsstudie (Doctoral Dissertation). Retrieved from. http://pages.unibas.ch/diss/2006/DabsB_7618.pdf.
- Kim, C. & Hodges, C. B. (2012). Effects of an emotion control treatment on academic emotions, motivation and achievement in an online mathematics course. *Instructional Science*, 40 (1), 173-193, 10.1007/s11251-011-9165-6
- Kleinginna, P. R., & Kleinginna, A. M. (1981). A categorized list of motivation definitions, with a suggestion for a consensual definition. *Motivation and Emotion*, 5(3), 263–291.
- Krapp, A. (2005). Basic needs and the development of interest and intrinsic motivational orientations. *Learning and Instruction*, 15 (5), pp. 381-395.

Lewis, M., Haviland-Jones, J. M., & Barrett, L. F. (Eds.). (2008). The handbook of emotion. New York: Guilford.

- Ma, X. (1999). A meta-analysis of the relationship between anxiety toward mathematics and achievement in mathematics. *Journal for Research in Mathematics Education*, 30 (5), 520–540
- Mazer, J. P., McKenna-Buchanan, T., Quinlan, M. M., & Titsworth, S. (2014). The dark side of emotion in the classroom: Emotional processes as mediators of teacher communication behaviors and student negative emotions. *Communication Education*, 63, 149-168.
- Meinhardt, J., & Pekrun, R. (2003). Attentional resource allocation to emotional events: An ERP study. *Cognition and Emotion*, *17*, 477–500.
- Meyer, D. K., & Turner, J. C. (2002). Discovering emotion in classroom motivation research. *Educational Psychologist*, *37*(2), 107 -114. Doi: 10.1207/S15326985EP3702_5
- Natriello, G. (1984). Problems in the evaluation of students and student disengagement from secondary schools. *Journal of Research and Development in Education*, 17, 14-24.
- Norman, D. A. (2004). Emotional design. New York: Basic Books.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18, 315–341.
- Pekrun, R., Goetz, T., Daniels, L. M., Stupnisky, R. H., & Perry, R. P. (2010). Boredom in achievement settings: Exploring control-value antecedents and performance outcomes of a neglected emotion. *Journal of Educational Psychology*, 102, 531–549. doi:10.1037/a0019243
- Pekrun, R., Goetz, T., Titz, W., and Perry, R. P. (2002). Academic emotions in students' self-regulated learning and achievement: a program of qualitative and quantitative research. *Educational Psychology*, 37, 91–105. doi: 10.1207/S15326985EP3702_4
- Pintrich, P.R. & De Groot, E. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1), 33-50.
- Reeve, J., Jang, H., Carrell, D., Jeon, S. & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and Emotion*, 28, 147 169.
- Reschly, A., & Christenson, S. L. (2006). Prediction of dropout among students with mild disabilities: A case for the inclusion of student engagement variables. *Remedial and Special Education*, 27, 276–292.
- Rheinberg, F., 1999. Motivation und Emotion im Lernprozess. Aktuelle Befunde und Forschungsperspektiven. In Jerusalem, M. and Pekrun, R. (eds.). *Emotion, Motivation und Leistung* (pp. 189-204). Hogrefe, Göttingen, Germany.
- Schiefele, U. & Köller, O. (2010).Intrinsische und extrinsische motivation. In D. H. Rost (Hrsg.), *Handwörterbuch Pädagogische Psychologie* (p. 336-344). Weinheim: Beltz.
- Schutz, P. A., & Pekrun, P.A. R., (2007). (Eds.), Emotion in education, Academic Press, San Diego, CA.
- Schutz, P. A., & Zembylas, M. (2009). Introduction to Advances in Teacher Emotion Research: The Impact on Teachers' Lives. In P. A. Schutz & M. Zembylas (Eds.), Advances in Teacher Emotion Research (pp., 3-11). NY: Springer.
- Spachtholz, P., Kuhbandner, C., & Pekrun, R. (2014). Negative Affect Improves the Quality of Memories: Trading Capacity for Precision in Sensory and Working Memory. *Journal of Experimental Psychology*, 143 (4), 1450 –1456. Doi: 10.1037/xge0000012
- Stenlund, K. V. (1995). Teacher perceptions across cultures: the impact of students on teacher enthusiasm and discouragement in a cross-cultural context. *Alberta Journal of Educational Research*, *41*, 145–161.
- Sutton, R. E. (2005). Teachers' emotions and classroom effectiveness: implications from recent research. *The Clearing House*, 78(5), 229–234. Doi: 10.2307/30189914
- Titsworth, B. S., Quinlan, M. M., & Mazer, J. P. (2010). Emotion in teaching and learning: Development and validation of the Classroom Emotions Scale. *Communication Education*, 59, 431–452. Doi:10.1080/03634521003746156
- Turner, J. C., Meyer, D. K., & Schweinle, A. (2003). The importance of emotion in theories of motivation: Empirical, Methodological, and Theoretical Considerations from a Goal Theory Perspective. *International Journal of Educational Research*, 39, 375–393
- Vollmeyer, R. & Brunstein, J. (2005). Motivationspsychologie und ihre Anwendung. Stuttgart: Kohlhammer.
- Zhang, Q., & Zhang, J. (2013). Instructors' positive emotions: Effects on student engagement and critical thinking in U.S. and Chinese classrooms. *Communication Education*, 62, 395–411. Doi:10.1080/03634523.2013.828842