

Designing a Happy Learning Environment in Schools and Investigating Its Relationship with Stress and Mental Health

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Abstract

The present qualitative-correlational study aimed at developing a model for designing a happy and active learning environment in schools and also identifying the relationships between different components of a happy learning environment and students' mental health and stress. First, the qualitative method was used to review the relevant literature and interview several experts in the field. Accordingly, 8 main components and 36 sub-components were identified for a happy learning environment and a conceptual model was developed. Next, the correlational method was used to determine the relationships between a happy learning environment and students' mental health and stress. A total of 200 students (100 females and 100 males) studying at five primary schools in Kermanshah in school year 2014-2015 were selected as the sample. The inclusion criteria were the observation of some specific symptoms such as nail biting, withdrawal, aggression, and academic underachievement. Goldberg's General Health Questionnaire (GHQ) and a researcher-made questionnaire on the components of a happy learning environment were used to collect the data on the students' behavior as observed by their parents and teachers. The collected data were analyzed using Pearson's correlation coefficient and independent t-test. There was a significant correlation between students' mental health and different components of a happy school environment. ($p < 0.01$). Among the components of mental health, stress had the most significant inverse correlation with different components of a happy school

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environment ($p = 0.01$, $r = -0.17$). In addition, female students were mentally healthier as compared to their male counterparts ($p < 0.001$). However, both gender groups scored equally on liveliness ($p < 0.05$). Given the significant relationship between students' improved mental health and reduced stress and the presence of a happy learning environment in schools, it can be concluded that a happy and dynamic learning environment can significantly improve students' mental health.

Keywords: Learning Environment, Happy Schools, Mental Health, Design

Introduction

Due to the significant role of education in improving and developing an individual's personal and social life, the society expects schools to be dynamic environments contributing to the growth of students and cultivating their potential talents. Transmitting memorized knowledge to students instead of focusing on their thoughts and thinking process, inadequate use of available facilities and resources (e.g., libraries and laboratories), shortage of educational resources and equipment, unmotivated teachers, unprofessionalism among some teachers, high-density of the classrooms, students' lack of motivation and lack of attention paid to lessons, academic underachievement, student's competitive spirit instead of cooperative spirit, and lack of a happy environment in schools are some of the factors contributing to turning schools into dull, monotonous, and stressful environments. They can each act as an obstacle impeding the realization of goals toward increased dynamism and growth (Siahpoosh, 2011). Stress is one of the main causes of mood and emotional disorders in children, which, in turn, can lead to academic underachievement, disturbed relationships, bad-temperedness, irritability, withdrawal, symptoms of physical pain (e.g., headache and abdominal pain), polyphagia, and hypersomnia (Jones, 2005). According to Argyle (2001), we are faced with many negative emotions, such as anger, anxiety, and depression, while there exists only one positive emotion known as happiness. According to what he points out, happiness has three main components: (1) positive emotions, (2) life satisfaction, and (3) absence of negative emotions. He also believes that positive relationships, a sense of meaning and purpose in life, personal growth, and loving others are also the components of happiness. Happiness not only depends on a high level of positive emotion, but also on a deeper

measurement of one general satisfaction with life. Fordyce (1983) has laid down 14 fundamentals that can help individuals increase their happiness. These include: (1) be more active and keep busy; (2) spend more time socializing; (3) be productive at meaningful work; (4) get better-organized and plan things out; (5) stop worrying; (6) lower your expectations and aspirations; (7) develop positive optimistic thinking; (8) get present-oriented; (9) work on healthy personality; (10) develop an outgoing, social personality; (11) be yourself; (12) eliminate negative feelings and problems; (13) close relationships are number-one source of happiness; and (14) VALHAP ° the secret fundamental (i.e., value happiness). In their research, Brophy and McCaslin investigated different types of problematic behaviors in students and interviewed their teachers in the process. They found that students' behavioral problems were caused by school stressors, which had a negative impact on their personality growth. These school stressors included inappropriate behavior on the part of the teachers and principals, unfair rules, irrational planning, and disorderly and chaotic school environments (Brophy & MacCaslin, 2008). School, as the most important setting wherein future generations can make their presence in the society, should provide students with a healthy and dynamic environment so that they can learn how to grow their passion for life. Liveliness and happiness are among the most fundamental moods in an individual's life and can play an important role in our physical as well as mental health. In today's world of education, promoting happiness is considered to be an important strategy to help students tackle their stress and maintain their mental health so that they can develop their physical, social, and mental skills (Buss, 2005). The literature review showed that building and maintaining coherent interpersonal relationships and having continuous and sustainable social contact are among the main factors contributing to happiness. In addition, happiness is significantly and positively related to religion, spirituality, power, wealth, physical condition and health, leisure time and entertainment, life satisfaction, creativity, self-efficacy, independence, sense of purpose in life, struggle for success, social support, optimism about future, dedicating time to valuable matters, and pursuing spiritual goals in life. All these factors are key to sustainable happiness (Seligman, 2002). In fact, happiness, just like wealth, can be lost or accumulated. By integrating happiness-promoting strategies into teaching methods and curriculum planning

processes, not only would a satisfactory environment be created for students but also many other problems, including absence from school, late arrivals, boredom and restlessness in classroom, physical and mental illnesses, and eventually, academic underachievement, would be overcome and students would be provided with an environment that fosters effective learning. Thus, happiness-promoting strategies should seemingly be taken into consideration while developing curriculums for different educational levels (Broome, 2013). The factors contributing to students' happiness in the school environment and during their teenage years include family and peer acceptance, personal and education success, student-teacher interactions, participation in class and school activities, teachers' instruction and evaluation methods, lesson content, learning facilities, and organizational climate at school. Classrooms should abandon their passive curriculums and emphasis on memorizing concepts; instead, they should try to focus on critical thinking as a component that facilitates learning. In their studies, Chan (2007), and Gholami and Hosseinichari (2011) found that students' happiness can be predicted by their perception of the expectations teachers have from them. In Jafari and Talebzadeh's (2010) model of a happy school, school's physical structure, happy curriculum, and teachers' ability to maintain a happy class were prioritized. In this study, the different components of a happy school were first identified and presented as a conceptual model. Next, the relationship between a happy school environment and students' stress and mental health was determined. Accordingly, the following research questions were developed:

What are the components of a happy learning environment in schools?

What is the conceptual model of a happy learning environment in schools? The research hypothesis was formulated as follows:

"There is a relationship between the happy learning environment in schools and students' stress and mental health."

Method

The present study is comprised of two phases. The first phase was qualitative and was conducted as a comparative content analysis. Purposive sampling was used to select 50 professors and experts. Semi-structured interviews were carried out to collect the necessary data. These interviews continued until data saturation was reached.

Data saturation occurs when no new theme is added to the data through an interview. Finally, after reviewing the relevant literature and transcribing the recorded interviews, the components of a happy and dynamic learning environment in schools were identified. In this study, the units of analysis were words, sentences, and pages. The data collected were analyzed through open axial coding and based on Graneheim and Lundman's proposed coding process. This coding process consisted of the following stages: (1) transcribing each recorded interview immediately after it was completed; (2) reading the transcribed text for an overall understanding of the interview; (3) determining meaning units and primary codes; (4) placing similar primary codes into more inclusive categories; and (5) identifying the underlying content of the data available (Graneheim & Lundman, 2004). After analyzing the assigned codes and deleting repetitive ones, the relevant categories and sub-categories were identified. The final analysis was presented as a conceptual framework, which will be presented further in the paper. A questionnaire was developed based on this conceptual model. Delphi method was employed to verify or reject the data. The experts answered the questionnaire in three rounds. Cronbach's alpha technique was used twice to estimate the questionnaire's reliability ($\alpha = 0.80$) in SPSS. The second phase of the study was quantitative in nature and was conducted as a correlational research. The sample consisted of 200 students (100 males and 100 females) studying at five primary schools in the city of Kermanshah in the school year 2014-2015. The inclusion criteria were the observation of some specific symptoms such as nail biting, withdrawal, aggression, and academic underachievement. Goldberg's General Health Questionnaire (GHQ) and a researcher-made questionnaire on the components of a happy learning environment (8 main components and 36 sub-components) were used to collect the data on the students' behavior as observed by their parents and teachers. The components included in Goldberg and Hiller's general health questionnaire were physical symptoms, stress, and social dysfunction. The answers were rated on a four-item Likert scale. Based on the obtained scores, an overall score was determined for students' mental health. In order to distinguish the students with and without non-psychotic mental disorders, the cut-off point was set to be 23 points. Taghavi (2001) and Chen (1998) had already confirmed the questionnaire's validity and reliability. Cronbach's alpha was used to measure the

questionnaire reliability ($\alpha = 0.90$). It should also be noted that throughout the research, all ethical obligations were met (informed consent, confidentiality, etc.).

Results

In order to answer the first and second research questions, 50 professors were interviewed.

Out of these 50 professors, 15 were female and 35 were male. 10 percent of the professors selected as the sample held a post-doctoral degree, while 55 percent and 35 percent had doctoral and MA degrees, respectively. In addition, 83 percent of the professors were faculty members, whereas 17 were non-faculty members. A total of 65 percent of the professors were ranked assistant professor, 8 percent associate professor, 25 percent lecturer, and 2 percent professor.

Open coding phase:

152 concepts extracted from interviews (primary codes)

285 concepts extracted from theoretical texts and literature review

(Primary codes)

Axial coding phase:

The concepts (shared codes with similar meanings) were categorized into 8 main components and 36 sub-components.

Diagram 1 answers the first research question: "What are the components of a happy learning environment in schools?"

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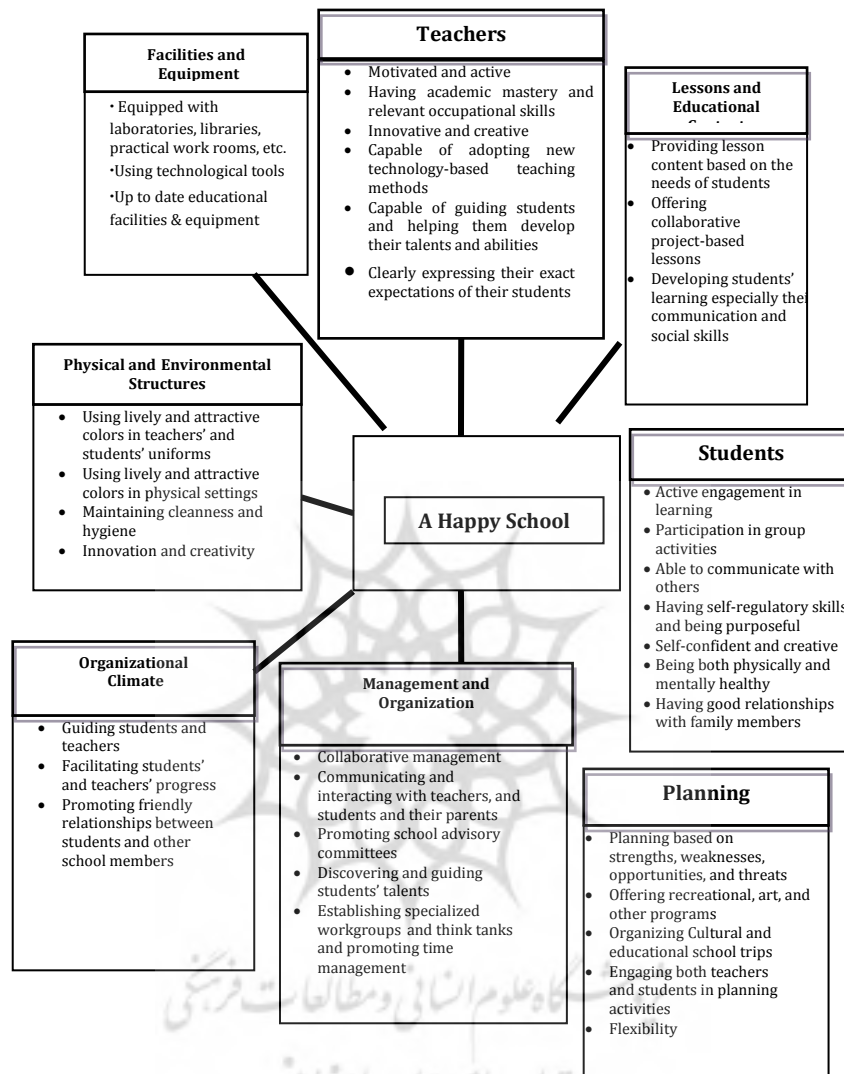


Diagram 1. Components of a Happy School Environment

According to Diagram 1, the following eight main components and 36 sub-components were identified for a happy learning environment in schools:

1. Active and dynamic teachers: being motivated and active, having academic mastery and relevant occupational skills, being innovative and creative, capable of adopting new technology-based teaching methods, capable of guiding students and helping them

develop their talents and abilities, having a sense of humor, and clearly expressing their exact expectations of their students.

2. Active Students: active engagement in learning, participation in group activities, being able to communicate with others, having self-regulatory skills and being purposeful, being self-confident and creative, being both physically and mentally healthy, and having good relationships with family members.

3. Lessons and educational programs: providing lesson content based on the students' needs, offering collaborative project-based lessons, and developing students learning, especially their communication and social skills.

4. Purposeful and systematic planning: planning based on strengths, weaknesses, opportunities, and threats, offering recreational, art, music and other programs, organizing cultural and educational school trips, engaging both teachers and students in planning activities and flexibility.

5. Management and organization: collaborative management, communicating and interacting with teachers, students, and students parents, promoting school advisory committees, discovering and guiding students talents, and establishing specialized workgroups and think tanks and promoting time management.

6. Organizational climate: guiding students and teachers, facilitating students and teachers progress, and promoting friendly relationships between students and other school members.

7. Physical and environmental structure: using happy and attractive colors in teachers and students uniforms, using happy and attractive colors in physical settings, maintaining cleanness and hygiene, and innovation and creativity.

8. Educational facilities and equipment: up-to-date educational facilities and equipment, being equipped with laboratories, libraries, and practical work rooms, and using technological tools.

Diagram 2 answers the second research question:" What is the conceptual model of a happy learning environment in schools?"

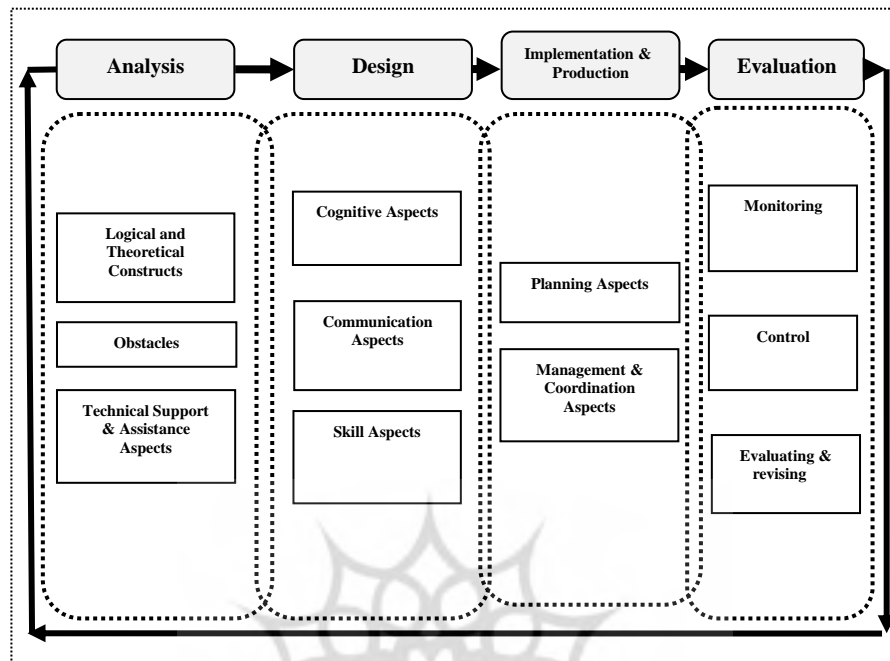


Diagram 2. A conceptual model of a happy school environment

Diagram 2 shows the conceptual model of a happy learning environment as extracted from the viewpoints of the interviewed experts. The model has four main focuses, namely analysis, design, implementation, and evaluation. In the first stage (analysis), logical and theoretical constructs, obstacles, and technical, supportive, and assistance aspects should be investigated. In the second stage (design), cognitive and communication skills are designed. In the third stage (implementation), planning, and management and coordination aspects are applied. Finally, in the fourth stage (evaluation), monitoring, control, evaluation, and reconsideration are conducted. This cycle continues and updates uninterruptedly as a dynamic and purposive process aimed at overcoming weaknesses, promoting strengths, seizing opportunities, and reducing threats throughout the four mentioned stages (analysis, design, implementation, and evaluation). For each strategy defined in this model, some measures are proposed based on the components and sub-components identified in Diagram 1.

In the second stage, the following data were obtained to test the research hypothesis:

"There is a relationship between the happy learning environment in schools and students stress and mental health."

Table 1: Mental health and happy school environment mean and standard deviation scores by gender

Statistical measures	Female students n = 100		Male students n = 100		Total N = 200	
	Mean	SD	Mean	SD	Mean	SD
Mental health	21.88	11.98	26.92	11.46	24.15	12.00
Happy school environment	10.50	1.84	10.55	1.79	10.52	1.82

Table 1 shows descriptive criteria (mean and standard deviation) for mental health and happy school environment by gender. As can be seen, the mean of mental health scores in female students is lower as compared to the male ones. In other words, the female students are mentally healthier than their male counterparts.

Table 2. Correlations between happy school environment and mental health and its components by percentage

Statistical index Components	Correlation				
	1	2	3	4	5
1) Physical problems	1				
2) Stress	0.51***	1			
3) Social performance	0.26***	0.46***	1		
4) Overall mental health	0.68***	0.84***	0.69***	1	
5) Happy school environment	-0.16**	-0.17**	-0.15**	-0.06	1

** Significance level = 0.01

*** Significance level = 0.001

The results of testing the main hypothesis of the study showed that there was a significant relationship between students mental disorders and happy school environment ($r = -0.18$, $p = 0.01$) (Table 2). In addition, among the components of mental health, stress was more strongly correlated with happy school environment ($r = -0.17$, $p = 0.01$).

Table 3. Independent t-test results ° comparing students mental health level and liveliness of school environment by gender

Variable	Gender	Mean	Standard deviation	t	df	P
Mental health	Female	21.88	0.85	4.03	355	0.001***
	Male	26.92	0.90			
Liveliness of school environment	Female	10.50	1.84	2.22	355	0.78
	Male	10.55	1.79			

*** Significance level = 0.001

Table 3 shows the results of the independent t-test on the relationship between students mental health and happy school environment by gender. According to this table, there is a significant difference between female and male students in terms of their mental health. In other words, female students were mentally healthier than their male counterparts ($t = 4.03$, $p < 0.001$).

Conclusion and Discussion

According to the qualitative findings of the present study, a happy school is defined as a school that has active and dynamic teachers and students, one which provides lesson content based on the needs of its students, offers collaborative project-based lessons, develops students learning, especially their communication and social skills, offers recreational, art, music and other programs, organizes cultural and educational school trips, engages both teachers and students in planning activities, enjoys flexibility, encourages collaborative management and interactions between teachers, students and their parents, promotes school advisory committees, discovers and guides students talents, establishes specialized workgroups and think tanks, promotes time management, uses happy and attractive colors in students and teachers uniforms and school sphysical settings, maintains cleanness and hygiene, takes advantage of and welcomes innovation and creativity, uses up-to-date educational facilities and

equipment, is equipped with laboratories, libraries, and practical work rooms, and employs technological tools.

The results concerning the components of a happy school environment were consistent with Brophy and MacCaslin findings and Fordyce's first, second, third, fourth, thirteenth, and fourteenth fundamentals of happiness. In their study, Gholami and Hosseinichari (2011) found that students' happiness can be predicted by their perception of the expectations teachers have from them. The findings of the present research were consistent with this finding. Jafari and Talebzadeh (2010) proposed a model of happy school, so that school physical structure, happy curriculum, and teachers' ability to maintain a happy class were prioritized. Again, the findings of the present research were consistent with this finding. The quantitative goal of the research dealt with the relationship between a happy school environment and students' stress and mental health. Pearson's correlation coefficient showed that, generally, there is a significant correlation between students' mental health and happy school environment ($p < 0.001$). In addition, the results showed that among the components of mental health, stress had the strongest correlation with happy school environment ($r = -0.17, p = 0.01$). To explain this significant relationship, it could be inferred that in schools where happiness and dynamism components were applied to planning and management aspects, organizational climate, and educational facilities and equipment, students were mentally healthier. Furthermore, it was found that female students were mentally healthier than their male counterparts ($t = 4.03, p < 0.05$). This was consistent with Argyle's, Broome's, and Seligman's findings. As the cut-off point was set to be 23 so as to distinguish normal students from those suspected of having mild mental disorders and the mean value of male students' mental health (26.92) was higher than the cut-off point, it can be concluded that male students are more likely to develop mild mental disorders as compared to their female counterparts. Thus, it is recommended that path analysis and structural equation modelling methods be used to investigate other variables affecting students' mental health. Since emotional and communication problems can be a significant threat to students' mental health, it is recommended that a learning environment free from stress and all other factors threatening students' mental health should be designed.

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